THE JOURNAL OF ALTERNATIVE AND COMPLEMENTARY MEDICINE
Volume 15, Number 11, 2009, pp. 1157–1169

DOI: 10.1089/acm.2009.0036

Original Articles

A Systematic Review of the Therapeutic Effects of Reiki

Sondra vanderVaart, H.B.Sc., M.B.A.,[1,2] Violette M.G.J. Gijsen, M.Sc.,[2]
Saskia N. de Wildt, M.D., Ph.D.,[2,3] and Gideon Koren, M.D., F.R.C.P.C., F.A.C.M.T.[1,2,4]

Abstract

Introduction: Reiki is an ancient form of Japanese healing. While this healing method is widely used for a variety of psychologic and physical symptoms, evidence of its effectiveness is scarce and conflicting. The purpose of this systematic review was to try to evaluate whether Reiki produces a significant treatment effect.
Methods: Studies were identified using an electronic search of Medline, EMBASE, Cochrane Library, and Google Scholar. Quality of reporting was evaluated using a modified CONSORT Criteria for Herbal Interventions, while methodological quality was assessed using the Jadad Quality score.
Data extraction: Two (2) researchers selected articles based on the following features: placebo or other adequate control, clinical investigation on humans, intervention using a Reiki practitioner, and published in English. They independently extracted data on study design, inclusion criteria, type of control, sample size, result, and nature of outcome measures.
Results: The modified CONSORT Criteria indicated that all 12 trials meeting the inclusion criteria were lacking in at least one of the three key areas of randomization, blinding, and accountability of all patients, indicating a low quality of reporting. Nine (9) of the 12 trials detected a significant therapeutic effect of the Reiki intervention; however, using the Jadad Quality score, 11 of the 12 studies ranked "poor."
Conclusions: The serious methodological and reporting limitations of limited existing Reiki studies preclude a definitive conclusion on its effectiveness. High-quality randomized controlled trials are needed to address the effectiveness of Reiki over placebo.

Introduction

There is growing interest in complementary and alternative medicine (CAM). The National Center for Complementary and Alternative Medicine (NCCAM) describes CAM as "a group of diverse medical and health care systems, practices, and products that are currently not part of conventional medicine."[1,2] Canadians spent an estimated $5.6 billion dollars out of pocket for CAM expenditures in the 12 months ending June 2006 compared to almost $2.8 billion in 1997.[3] Both Gordon[4] and Schiller[5] suggest that the awareness, use, and integration of CAM are beginning to shift from the marginal fringes to the mainstream of care.[6]

In a 2007 NCCAM survey, 0.5% of the United States general adult population reported having used Reiki therapy.[1,7]

Reiki is a therapy that claims to provide healing energy to recharge and rebalance the human energy fields, creating optimal conditions needed by the body's natural healing system.[6] Reiki, which is the Japanese term for "universal life energy," is believed to have originated thousands of years ago in Tibet and was re-established in the 1800s after having been forgotten, by Dr. Mikao Usui, a Japanese monk.

Energy-based healing interventions have been found throughout history:

- Hippocrates referenced the "biofield" of energy flow from people's hands,
- The Indian Chakra system is based on energy centers in the body, and
- Eastern energy practices such as *qigong* rely on the breath to balance the body's energy field

Studies have suggested that Reiki, classified by the NCCAM as a biofield energy therapy, reduces anxiety and depression and increases relaxation and comfort.[6,8] Also, Reiki is now widely used, mostly outside of mainstream medicine, to relieve pain, especially postoperative pain, and

[1]Department of Pharmacy, University of Toronto, Toronto, Ontario, Canada.
[2]Division of Clinical Pharmacology and Toxicology, The Hospital for Sick Children, Toronto, Ontario, Canada.
[3]Department of Pediatric Surgery, Erasmus MC Sophia Children's Hospital, Rotterdam, The Netherlands.
[4]Ivey Chair in Molecular Toxicology, Department of Medicine, University of Western Ontario, London, Ontario, Canada.
Both the first and second authors contributed equally to the analyses completed in this article. S.V. drafted this article, V.G. extracted the publications, and S.N.W. initiated the research described in this article. All authors contributed with feedback and revisions.

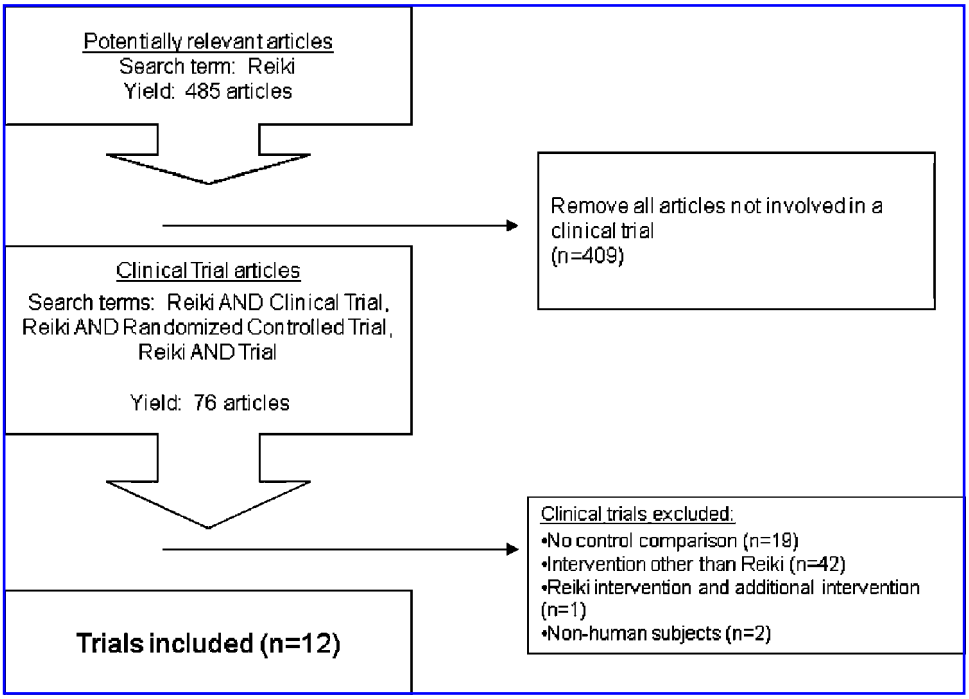

FIG. 1. Flow diagram of selection process.

to facilitate patient recovery. Reiki practice is administered through a gentle laying on of hands, or in absentia (i.e., remote Reiki where the Reiki practitioner is not present). Both types of practice are based on the assumption that the Reiki practitioner maintains a meditative presence and allows the Reiki energy to flow to where the patient needs it, in a nondirected and nondiagnostic manner.[6]

Reiki is typically taught in three levels (sometimes four, as the third level can be broken into part I and part II).[9] The focus of Reiki Level I is on recovering the natural healing abilities of the body. Reiki Level II teaches a deeper understanding of the energetic flow and introduces symbols to aid in treatment efficacy. The third level, Reiki Master, is almost completely focused on the inner spiritual development of the Reiki practitioner and most of the practices at this level concern themselves with the development of spiritual consciousness. Reiki Master training also focuses on the development of the skills needed to teach this work to other Reiki students. A necessary step in all levels is an "attunement" by a Reiki Master. The attunement (or initiation) process allows the Reiki energy to flow from the Reiki practitioner's hands to the patient. Without an attunement from a Reiki Master, a person cannot be said to be practicing Reiki, even if they learn the technical aspects of where to put their hands.

Energy-based healing encompasses a belief in a greater healing force and is inherent in many cultures. For example, healing approaches of the indigenous people of China, Tibet, Africa, Native America, and India are thought to work because of the members' belief in the expectation of healing.[10] However, these cultures maintain that healing, like illness, is not limited to those who believe in it, and that an illness is the result of a blockage in one's energy field. By introducing an energy-based intervention, the energy blockage is believed to be removed and this is believed to serve to rebalance the body's energy field, which in turn rebalances the physical body.[10]

If there is more to healing than belief, these effects should be able to be measured. Current scientific thinking indicates that the best way to measure the true effect of a biomedical intervention requires proper randomization, control, blinding, and concealment. These processes decrease the likelihood of bias and ensure internal study validity to help determine whether healing claims are more than belief.[10] While Reiki itself is not a biomedical intervention, it is used in the treatment of a variety of psychologic and physical symptoms, which might otherwise be treated with biomedical interventions (e.g., pharmaceutical substances). In this regard, its efficacy needs to be proven.

Reiki proposes to heal the whole patient, and is not directed solely to cure/relieve a single ailment. This whole system healing may require advanced techniques, such as nested qualitative research within a randomized controlled trial (RCT) to measure its effectiveness.[11] Given the complexity of measuring such effects, well-designed, well-executed clinical trials are a prerequisite, and any intentional deviations from the accepted "gold standard" RCT should be documented and explained.

Presently, despite increased interest and awareness, the results of specific studies on Reiki are inconclusive. The objectives of this systematic review were to (1) evaluate the quality of reporting of clinical trials using Reiki as the treatment modality and (2) evaluate the quality of existing evidence on the efficacy of Reiki in humans.

Methods

Literature review

Studies were identified by an electronic search of the Medline, EMBASE, and the Cochrane Library databases from their inception to the end of December 2008. The following search terms (Fig. 1) were employed in MEDLINE®:

Reiki, Reiki AND randomized controlled trial, Reiki AND clinical trial, Reiki AND clinical, Reiki AND trial. In EMBASE the following terms were used: Reiki.mp, Reiki AND randomized controlled trial, Reiki AND clinical trial. We employed the additional search terms to eliminate all the studies that were not clinical trials. We also used Google and Google Scholar to identify any articles or other publications that may have been missed. The reference lists of the selected articles were checked for additional studies that were not originally found in the search. In addition, given Reiki's Japanese origins, Medline and EMBASE were searched for Reiki studies published in Japanese; however, none were found.

Study selection and data extraction

Two researchers (S.V., V.G.) independently reviewed the list of unique articles for studies that fit the inclusion criteria (see below). The researchers were not blinded to the report name or author. Studies were selected based on the following inclusion criteria:

1. Presence of test group and control group (using either placebo, crossover, sham, or normal care)
2. Human subjects
3. A Reiki healer being responsible for the intervention
4. English language
5. Studies published up to December 2008.

Uncertainties over study inclusion were discussed between the researchers and resolved through consensus.

Quality assessment

Each study was assessed on whether or not it reported a statistically significant outcome measure for the Reiki intervention group. Each study was evaluated and counted only once regardless of how many statistically significant outcome measures it reported. The raw count was used to determine the percentage of studies yielding a statistically significant outcome.

We evaluated the accepted studies using a modified *CONSORT (Consolidated Standards of Reporting Trials) Criteria for Herbal Interventions.*[12] The original CONSORT was developed by a group of scientists and editors to improve the quality of reporting of RCTs.[13] The CONSORT for Herbal Interventions was developed to aid editors and reviewers in assessing the internal/external validity and reproducibility of herbal medicine trials, allowing an accurate assessment of safety and efficacy.[12] The authors chose the CONSORT for Herbal Interventions (HI) because it specifically breaks out important details about the Intervention, which adds important information about the Reiki trials. For example, the CONSORT for HI specifically details (1) dosage and frequency: Interpreted as how long the Reiki session lasted, and how many Reiki sessions were given; (2) practitioner: What is the level of training of the Reiki practitioner as well as the number of years of experience; (3) placebo or control: Reiki is usually administered by having a person present in a room with a patient (except not in the case of distant Reiki). Reiki placebo is important in determining whether the patients and assessors were blinded.

One researcher (S.V.) modified the herbal dosage components of the CONSORT for HI, to reflect the Reiki practitioner as the intervention instead of the herb (see Table 1 Original CONSORT for HI and Table 2 for modified CONSORT for HI).

For each CONSORT criterion, the 2 researchers independently assessed whether the reporting was adequate or not and scored the criterion as: Y (yes), N (no), P (partial), or NA (not applicable). We identified items that were adequately or not adequately reported according to the CONSORT definition of what is required for each item.

We considered the percentage of affirmative answers as the raw score for the internal validity. A percentage calculation was used to determine the proportion of CONSORT criteria that are adequately addressed. Items that were rated as NA were excluded from the analysis.

To assess the methodological quality of existing Reiki studies, we used the Jadad score. The Jadad score is the method most authors use to assess methodological quality.[14] This validated score ranges between 0 and 5. Studies are scored according to the presence of the three key methodological features of randomization, blinding, and accountability of all patients, including withdrawals (essentially subsets of the greater CONSORT criteria). Criteria are given a "0" or "1" score based on the absence or presence of the criteria. Scores are interpreted as: 0–2: poor methodological quality; 3–4 good methodological quality; and 5 excellent methodological quality.[15]

Results

A total of 485 unique articles were identified using Reiki as the only search term. To limit the articles to clinical trials only, we employed additional search terms as described above. As a result, study count was reduced to 76 (Fig. 1). The majority of these studies were either (a) small studies with no control arm, (b) descriptive case studies where researchers described a single patient Reiki intervention and/or recounted its history, or (c) studies using Therapeutic Touch (a similar but distinct therapy) and thus were excluded. Thirteen (13) studies fulfilled the aforementioned inclusion criteria. One study[16] was removed from the analysis because the intervention included two different types of practitioners (Reiki and Le Shan) and thus the results of the Reiki practitioner could not be isolated. This left a total of 12 studies to analyze.

Since four of the studies did not indicate the level of experience and/or the number of years of experience of the Reiki practitioner, the researchers attempted to contact the primary authors to obtain this information. The researchers were successful in contacting two of the authors,[17,18] and unsuccessful with authors for two of the studies.[19,20]

All of the studies differed in their studied populations and outcome measures. Of the 12 studies, 3 studies administered Reiki for physiological symptoms such as stroke recovery, seizure rate and heart rate and 9 studies administered Reiki for psychological symptoms such as anxiety and depression. A total of 31 different outcome measures were evaluated in the trials, none of which were used in more than 3 studies (Table 3). Hence, the heterogeneity of the studies' outcomes precluded a formal meta-analysis.

CONSORT reporting quality: Findings

The evaluators disagreed in 33% of the evaluations, with the majority of the disagreements resulting from a difference

Table 1. Original CONSORT Criteria for Herbal Interventions

Consort no.	*CONSORT criteria*	*Definition*
Title and abstract		
1	Word "random" or "randomization" used	Word "random" or "randomized" mentioned
Introduction		
2	Background (nature, scope, severity of problem)	Nature, scope, and severity of problem
Methods		
3a	Participants (eligibility)	Eligibility criteria for participants (must include exclusion criteria)
3b	Participants (setting and locations)	Settings and locations of participant interventions
4a	Intervention–Herbal medicine product name	Latin binomial name
4b	Intervention–Characteristics of herbal product	Type of product, concentration, method of authenticating raw product
4c	Intervention–Dosage	Description of type and frequency of herbal intervention
4d	Intervention–Qualitative testing	Product's chemical fingerprint and who performed the analysis
4e	Intervention–Placebo/control	Rationale for type of control/placebo used
4e	Intervention–practitioner	Description of practitioner: Training and practice level and years of experience
5	Primary and secondary objectives defined	Specific objectives and hypothesis
6	Outcomes	Clearly defined primary and secondary outcome measures
6b	Quality enhancement (if applicable)	If applicable, methods used to enhance the quality of measurements (e.g., multiple observers, training of assessors)
7	Sample size determination	How sample size was determined
7b	Interim analysis and stopping rules (if applicable)	If applicable, explanation of interim results and stopping rules
8	Randomization sequence allocation	Method used to generate the random sequence
8b	Details of restriction (if applicable)	If applicable, details of restriction
9	Allocation concealment	Method used to implement the random allocation sequence (e.g., numbered containers, central telephone)
10	Who generated the allocation sequence?	Who generated the allocation concealment
10b	Who enrolled the patients?	Who enrolled patients
10c	Who assigned the patients to the groups?	Who assigned patients to groups
11	Blinding (were participants and therapists blinded?)	Whether or not participants and therapists were blinded
11b	Blinding (were the assessors blinded?)	Whether or not assessors were blinded
11c	How was success of blinding evaluated (if applicable)	If applicable, how successful was blinding
12	Statistical methods	Statistical methods used to compare groups for primary outcome(s)
Results		
13	Participant flow	Flow of participants through each stage (diagram recommended). For each group report number of participants randomly assigned, receiving intended treatment, completing study protocol, and analyzed for primary outcome.
13b	Report of study violations (if applicable)	Report study violations with reasons
14	Recruitment	Dates defining the periods of recruitment and follow-up
15	Baseline data	Baseline demographic and clinical characteristics of each group (including concomitant medication, CAM use, etc.)
16	Numbers analyzed	No. of participants in each group
16b	Was it intention-to-treat analysis?	State whether analysis was "intention-to-treat" state numbers in absolute (e.g., 10/20).
17	Outcomes and estimations	State summary of effect for each group and effect size
17b	Precision of the effect size	State precision of the effect (i.e., 95% CI)
18	If applicable, ancillary analysis stated in protocol?	Address multiplicity by stating any other analyses performed including subgroup analyses and adjusted analyses
19	Adverse events (if applicable)	State any adverse events or side-effects in each intervention group
Discussion		
20	Interpretation	Interpretation of results taking into account study hypothesis, source of potential bias, and dangers associated with multiplicity of analyses
21	Generalizability	External validity of trial results; explain how treatment offered is similar in self-care/practice
22	Overall evidence	General interpretation of results in the context of current evidence

CAM, complementary and alternative medicine; CI, confidence interval.

Table 2. Study Scores

Consort no.	CONSORT criteria	Item no.	Individual studies												Sum of studies			
			17	25	23	21	22	19	20	26	27	24	18	*	Yes	No	Partly	NA
Title and abstract																		
1	Word "random" or "randomization" used	1	y	n	y	n	na	na	y	y	n	y	n	y	6	4	0	2
Introduction																		
2	Background (nature, scope, severity of problem)	2	y	y	y	p	y	p	y	y	p	y	p	p	7	0	5	0
Methods																		
3a	Participants (eligibility)	3	y	y	y	y	y	y	y	y	y	y	p	y	11	0	1	0
3b	Participants (setting and locations)	4	p	y	n	p	p	y	p	p	y	p	n	p	3	2	7	0
4c	Intervention–Dosage regimen	5	y	y	y	y	y	p	y	y	y	y	p	y	10	0	2	0
4e	Intervention–Control group	6	y	y	y	y	y	y	y	y	p	y	y	y	11	0	1	0
4f	Intervention–Practitioner	7	n	y	y	p	y	n	p	y	y	y	n	y	7	3	2	0
5	Primary and secondary objectives defined	8	y	y	y	y	y	y	y	y	y	y	y	y	12	0	0	0
6	Outcomes	9	p	y	p	y	n	y	y	y	y	p	y	y	8	1	3	0
6b	Quality enhancement of the outcome measurement	10	y	y	y	y	y	y	y	y	y	y	y	y	12	0	0	0
7	Sample size determination	11	n	y	n	y	n	n	y	y	n	n	n	n	4	8	0	0
7b	Interim analysis and stopping rules (if applicable)	12	na	na	na	na	na	na	na	na	na	na	na	na	0	0	0	12
8	Randomization sequence allocation	13	n	n	n	y	y	n	y	n	n	n	n	y	4	8	0	0
8b	Details of restriction (if applicable)	14	na	na	na	na	na	na	y	na	na	y	na	y	3	0	0	9
9	Allocation concealment	15	n	n	p	p	n	n	y	n	n	n	n	y	2	8	2	0
10	Who generated the allocation sequence?	16	n	n	n	n	y	n	y	n	n	n	n	y	3	9	0	0
10b	Who enrolled the patients?	17	n	n	n	y	y	n	y	n	n	n	n	y	4	8	0	0
10c	Who assigned the patents to the groups?	18	n	n	n	n	y	n	n	n	n	n	n	n	1	11	0	0
11	Blinding (were participants blinded?)	19	y	y	y	n	n	n	n	n	n	y	y	y	6	6	0	0
11b	Blinding (were the assessors blinded?)	20	n	n	y	p	n	n	y	n	n	n	n	y	3	8	1	0
11c	Was success of blinding evaluated?	21	n	y	n	na	na	na	na	na	na	n	n	n	1	5	0	6
12	Statistical methods	22	y	p	y	y	n	y	y	y	y	y	y	y	10	1	1	0
Results																		
13	Participant flow	23	n	p	n	p	n	n	y	y	p	y	p	p	3	4	5	0
13b	Report of study violations (if applicable)	24	na	na	na	p	na	n	y	y	n	p	y	y	4	2	2	4
14	Recruitment	25	n	n	n	p	n	n	y	p	n	y	n	y	3	7	2	0
15	Demographic and clinical characteristics	26	y	y	p	y	n	y	y	y	p	y	y	y	9	1	2	0
16	No. of participants in each group?	27	p	y	y	y	y	y	y	y	y	y	y	y	11	0	1	0
16b	Was it intention-to-treat analysis?	28	n	y	n	n	n	n	y	y	y	y	n	n	5	7	0	0
17	Effect size for each group for each outcome measure	29	p	p	y	p	y	y	y	y	p	p	p	y	6	0	6	0
17b	Precision of the effect size	30	n	p	p	p	p	n	y	p	p	p	p	p	1	2	9	0
18	If applicable, ancillary analysis stated in protocol?	31	na	na	na	na	na	na	na	na	na	y	na	p	1	0	1	10
19	Adverse events (if applicable)	32	na	na	na	na	na	na	n	na	n	n	n	n	0	5	0	7
Discussion																		
20	Discussion/interpretation	33	p	y	y	y	y	y	p	y	n	y	p	y	8	1	3	0
21	Generalizability	34	p	y	y	y	y	n	y	y	n	y	p	y	8	2	2	0
22	Overall evidence	35	n	p	n	y	p	y	y	n	n	y	n	p	4	5	3	0
	Sum														**191**	**118**	**61**	**50**
	Percent of applicable CONSORT criteria ($n = 370$)														52%	32%	16%	

*Mauro MT. The effect of Reiki therapy on maternal anxiety associated with amniocentesis. Masters thesis. University of Alberta, School of Nursing, 2001.

NA, not applicable.

in interpretation in what constituted partial (p) versus full (y) rating for the CONSORT analysis. After consensus discussions, the remaining disagreements (1%) were resolved by a third researcher (S.N.W.).

The 12 trials that studied a Reiki intervention in either a randomized controlled fashion or as a test versus control experiment are presented in Table 3. Eight (8) of the 12 studies identified themselves as RCTs. However, upon analysis of each of the study's text, the researchers were only able to identify 5 of the 12 (42%) publications as true RCTs.[20–24] Individual total applicable CONSORT criteria varied by study (see Table 2 for an individualized reporting of each criterion and Table 3 for a summary of adequately reported criteria by study).

Fifteen percent (15%) of the CONSORT Criteria items were not applicable for many of the trials (e.g., interim analyses,

Table 3. Study Type, Interventions, Outcomes, and Reporting Quality Based on a Modified CONSORT-Based Checklist

Study ref. no.	*Type of trial*[a]	*Comparison of intervention (whether Reiki ...)*	*Outcome measure*	*Adequately reported applicable criteria*
17	Test/control	Produces changes in autonomic nervous system	Heart rate (HR), blood pressure (BP), cardiac vagal tone (CVT), cardiac sensitivity to baroreflex (CSB) and respiratory rate (RR)	10/30 (33%)
25	Test/control	Aids in the recovery and rehabilitation in patients with subacute stroke	Functional Independence Measure and Depression (FIM), Center for Epidemiological Studies–Depression Scale (CES-D)	17/30 (57%)
23	RCT	Reduces depression and stress	Beck Depression Inventory (BDI), Beck Hopelessness Scale (HS), Perceived Stress Scale (PSS)	15/30 (50%)
21	RCT	Reduces pain and improved quality of life in patients with cancer	Visual Analogue Scale (VAS), Analgesic Use, BP, RR, HR	15/30 (50%)
22	RCT	Reduces pain and anxiety in women with hysterectomies	State–Trait Anxiety Inventory (STAI), VAS	15/28 (54%)
19	Test/control	Changes the isoprenoid pathway in seizure patients	Hepatic hydroxymethyl glutaryl Co-A reductase activity, serum digoxin level	12/29 (41%)
20	RCT	Reduces anxiety and depression in women undergoing breast biopsy	STAI, CES-D, Hospital Anxiety–Depression Scale (HADS)	27/32 (84%)
26	Pilot crossover	Reduces cancer-related fatigue in patients with cancer	Edmonton System Assessment System (ESAS); Functional Assessment of Cancer Therapy–General (FACT-G)–Fatigue (FACT-F)	19/30 (63%)
27	Test/control	Improves memory and behavior deficiencies in patients with Alzheimer disease	Annotated Mini-Mental State Examination (AMMSE) and Revised Memory and Behavior Problems Checklist (RMBPC)	10/31 (32%)
24	RCT	Reduces pain, anxiety, and depression in chronically ill patients	General Information Questionnaire; Social Readjustment Rating Scale; McGill Pain Questionnaire; BDI II; STAI; Rotter I-E Scale; Rosenberg Self-Esteem Scale; Belief in Personal Control Scale	20/34 (59%)
18	Test/control	Reduces pain and improves mobility in patient with painful diabetic neuropathy	McGill Pain Questionnaire; 6-minute walk test; Epidemiology of Diabetes Intervention and Complications Quality of Life Questionnaire; Well Being Questionnaire; Diabetes Treatment Satisfaction Questionnaire	10/32 (31%)
*	Pilot (test/control)	Reduces anxiety level of women undergoing their first amniocentesis	Sheehan Patient-Related Anxiety Scale (SPRAS) and Subjective Unit of Disturbance Scale (SUDS)	24/34 (71%)
	Total			194/370 (52%)

[a]As determined by researchers after reviewing the study.

*Mauro MT. The effect of Reiki therapy on maternal anxiety associated with amniocentesis. 2001. Masters Thesis. University of Alberta, School of Nursing.

randomization restrictions, ancillary analyses, blinding of practitioner). Items that were not applicable were not included in the calculations. For the group of 12 studies evaluated in the 35 item modified CONSORT checklist, over half of all items (52%) were reported adequately (Table 2). The remaining items were either not reported at all (32%) or reported partially (16%).

As a group, the 12 studies reported adequately the Introduction, the beginning part of the Methods section (CONSORT items 3–10), and most of the Results. Other than this, all the other sections were reported less than adequately: Methods—randomization, concealment and blinding (CONSORT items 11–22: 39% of items reported adequately); Results (specifically Intention-to-Treat: 42% adequately reported and Recruitment Dates: 25% adequately reported); and the Discussion section (56% of items reported adequately).

Individual studies ranged from 31% to 84% in adequately reporting applicable criteria. Assessment scores for all CONSORT criteria in the 12 trials are shown in Table 3.

Items reported adequately

The 12 trials adequately reported issues that are defined in the Introduction and beginning of Methods (all Methods except for Randomization, Assignment, and Blinding). These include: Reiki historical context with supporting literature, problem definition, study objectives, participant eligibility, description of participants and control subjects, dosage regimen for intervention and differences from control group treatment, and quality enhancements undertaken to improve outcome measurement. Over half the studies gave details about the practitioner performing the intervention.

Select criteria from the Results and Comments section were also adequately reported. These included: demographic and clinical characteristics of the groups, discussion, and generalization of the results. The number of patients in each group was almost always explicitly stated. The majority of studies reported mean scores and *p*-values, but less than half reported confidence intervals. The CONSORT criteria explicitly state that reporting *p*-values alone is not sufficient. Researchers must report confidence intervals so that readers can easily discern the overlap between mean scores.

Items seldom reported adequately

We identified major shortcomings in the reporting of the items displayed in the latter part of the Methods section (i.e., reporting the Randomization, Assignment, and Blinding). Only four trials[20–22,*] adequately detailed the randomization process. Of those four trials, only two trials[20,*] described the concealment of the allocation. For allocation concealment, we assumed that when no data were present, allocation was not concealed. A distinction was made between the two trials[20,*] where allocation was clearly concealed and those where there is some mention of concealment, but it is unclear whether this was achieved adequately.

Other examples of inadequate reporting: three trials[20,22,*] detailed who generated the allocation sequence and only one trial[22] specified who assigned the patients to their groups. Six trials[17,18,23,24,25,*] implemented blinding procedures for participants, but only one of them measured the success of the blinding.[25] Three (3) trials[20,21,23] mention blinding assessors. One trial (25) provided extensive background on the process and success of therapist blinding (for Reiki Level I practitioners) but only stated "patients were blinded" for the participant description. The CONSORT clearly states that this sentence is not enough to ensure that adequate blinding was achieved. The researchers rated this criterion for this trial as partially (p) adequately reported. In the other trials, masking of the participants or the therapists was not achieved due to a lack of a placebo arm (only a test and a control group).

Eight (8) trials identified specific primary outcome measures, but of these trials only four studies[20,21,25,26] provided a full rationale for sample-size calculation. On the basis of the reported numbers in the whole participant flow, we inferred that an intention-to-treat analysis was present in 5 of the trials.[20,24,25–27] Three (3) trials[21,24,*] mentioned the date range of the patient recruitment.

*Mauro MT. The effect of reiki therapy on maternal anxiety associated with amniocentesis. 2001. Masters Thesis. University of Alberta, School of Nursing.

Table 4. Jadad Scores

	Study reference no.											
Item no.	*17*	*25*	*23*	*21*	*22*	*19*	*20*	*26*	*27*	*24*	*18*	*
1	1	0	1	0	0	0	1	1	1	1	1	1
2	0	0	0	1	1	0	1	0	0	0	0	1
3	0	1	0	0	0	0	0	0	0	0	0	0
4	0	1	1	0	0	0	0	0	0	0	0	0
5	0	1	0	1	0	0	1	1	1	0	1	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	−1	0	0	0	0	0	0	0	0	0	0
Total	1	2	2	2	1	0	3	2	2	1	2	2

Score interpretation:
0–2 poor.
3–4 good.
5+ excellent.
*Mauro MT. The effect of Reiki therapy on maternal anxiety associated with amniocentesis. Masters thesis. University of Alberta, School of Nursing, 2001.

Jadad methodological quality: Findings

Based on the Jadad scores, 11 of the 12 studies were rated as methodologically "poor" with one study (20) rated as good. No studies were rated as "excellent" (Table 4).

Study results linked to level and experience of Reiki practitioner

Of the 128 studies evaluated, 9 stated significant positive findings on at least one outcome measure (not necessarily the primary outcome, as this often was not stated), while the other 3 studies[18,20,25] showed no significant outcomes (Table 5).

Of the three studies that showed no significant effect of Reiki, one[25] utilized a Reiki Master and 14 Level I Reiki practitioners; one used multiple Reiki Masters[18] and the other study[20] utilized 6 Level I or II Reiki practitioners. Of the 9 studies that showed a significant positive Reiki effect, 8 used a Reiki Master (or a Level II Reiki practitioner with more than 3 years experience). For the remaining study,[19] the researchers were not successful in their attempts to contact the author to determine the information (i.e., level of training or years of experience of the Reiki practitioner). As far as we could tell, no significant positive findings were found with Level I or II Reiki practitioners with less than 3 years of experience.

Discussion

Reiki use by patients in North America is growing; however, as shown by our analysis, this trend is not supported by adequate scientific data. There are few studies available to evaluate the efficacy of Reiki. Moreover, the few studies that are available are almost invariably of poor quality. Our analysis shows that the most important aspects that determine study quality (randomization, blinding, and accountability of all patients) are not well reported, nor is

Table 5. Summary of Studies

Ref. no.	Year	Authors	Journal	Study hypothesis	Population and study type	Outcomes	Conclusions
17	2004	Mackay N, Hansen S, McFarlane O	*Journal of Alternative and Complementary Medicine*	Reiki influences the autonomic nervous system.	$n = 45$; 24 females, 21 males, aged 23–59 years. Test vs. control.	Diastolic blood pressure response ($p < 0.005$) and heart rate changes ($p < 0.005$) were significantly different between Reiki and placebo.	Reiki has some effect on the autonomic nervous system.
23	2004	Goldman Shore A	*Alternative Therapies in Health and Medicine*	Reiki reduces psychologic depression and self-perceived stress.	$n = 45$, age 19–78. All in need of treatment for symptoms of depression and stress. Randomized controlled trial (RCT).	Significant difference on the Perceived Stress Scale (PSS) between Test 1(hands-on Reiki) and control (placebo group) ($p > 0.01$; $\eta^2 = 0.18$) and between Test 2 (remote Reiki) and placebo group ($p < 0.01$; $\eta^2 = 0.17$). No significant difference between two treatment groups. Similar results (Test 1 vs control; Test 2 vs control) on the Beck Depressive Index ($p = 0.05$; $\eta^2 = 0.9$ and $p = 0.004$; $\eta^2 = 0.18$ respectively) and the Hopelessness Scale ($p = 0.02$; $\eta^2 = 0.12$ and $p = 0.01$; $\eta^2 = 0.14$, respectively). No significant difference between types of treatment (hands-on vs. remote). One (1) year after the treatment, the difference maintained ($p < 0.05$; η^2 ranged from 0.12–0.44)	Hands-on Reiki and remote Reiki can reduce symptoms of depression, hopelessness, and stress. No significant difference between hands-on and remote reiki. The results were not due to placebo effects.
19	2003	Kumar R, Kurup P	*Neurology India*	Reiki-like treatments affect seizure patients.	n = 15, age 20–30 years. 8 males, 7 females. All with refractory seizure disorder.	The average seizure frequency decreased after treatment (2 per month in stead of 9 per month; $p < 0.01$). Increase in red blood cell membrane Na^+-K^+ ATPase activity ($p < 0.01$), serum magnesium ($p < 0.01$), and a reduction in hepatic hydroxymethyl glutaryl coenzyme A reductase activity ($p < 0.01$) and digoxin synthesis ($p < 0.01$), post-therapy.	Reiki-like treatment practices and transcendental meditation influence seizure frequency, biochemical pathways related to membrane Na^+-K^+ ATPase stimulation, and changes in neuronal transmission.
					Test vs control: 1 control group randomly chosen from the general population of Trivandrum city.	The concentration of serum tryptophan ($p < 0.01$), quinolinic acid ($p < 0.01$), and serotonin ($p < 0.01$) were reduced, post-therapy. The concentration of tyrosine ($p < 0.01$), dopamine ($p < 0.01$), and noradrenaline ($p < 0.01$) were increased, post-therapy.	

25	2002	Shiflett S, Nayak S, Bid C, Miles P	*Journal of Alternative and Complementary Medicine*	1. Reiki influences the functional recovery of patients with subacute stroke. 2. A procedure exists to blind both Reiki and sham Reiki practitioners.	$n = 50$, with subacute ischemic stroke. 31 male, 19 female. Test vs. control.	The effect on the Functional Independence Measure was not significant for the treatment group ($p > 0.50$). The Reiki practitioners were less confident than the non-Reiki practitioners about knowing in which group they were initiated ($p < 0.06$). Compared to Reiki practitioners, sham Reiki practitioners reported a greater frequency of feeling heat in the hands ($p < 0.03$).	1. Reiki had little or no effect on the functional recovery. 2. Reiki practitioners and sham practitioners did not differ in experience or sensations.
22	2006	Vitale AT, O'Conner PC	*Holistic Nursing Practice*	Reiki has a role as a therapy for pain management.	$n = 22$ women with scheduled abdominal hysterectomy. RCT.	At 24 hours after surgery, reports of pain were 3.8 for the experimental and 5.4 for the control group ($t = 1.79$; $p = 0.04$). No difference in reports of pain at 48 and 72 hours post-surgery.	Reiki influences postoperative pain for at least 24 hours.
21	2003	Olson K, Hanson J, Michaud M	*Journal of Pain and Symptom Management*	Reiki results in better pain control, less analgesic use, and an improved quality of life.	$n = 24$, 9 men (average age 59.5 years) and 15 women (average age 56 years), currently receiving palliative care due to advanced cancer. RCT.	A significant drop in pain in the standard opioid plus Reiki group on days 1 and 4 ($p = 0.035$; $p = 0.002$, respectively). Also a significant drop in diastolic blood pressure ($p = 0.035$; $p = 0.082$, respectively) and pulse ($p = 0.019$, only day 1).Quality of life significantly improved from days 1 to 7 for the standard opioid plus Reiki group ($p = 0.002$). No difference in analgesic use.	Reiki improved the quality of life and reduced the level of pain, but showed no difference in analgesic use.
20	2007	Potter P	*Journal of Holistic Nursing*	Reiki reduces psychologic stress in women undergoing breast biopsy.	$n = 35$ women scheduled for breast biopsy. RCT.	No significant difference in any of the 3 psychologic distress measures (State–Trait Anxiety Inventory [STAI], Center for Epidemiological Studies–Depression Scale [CES-D], Hospital Anxiety–Depression Scale [HADS]). Neither test nor control group showed pretest signs of depression or anxiety.	Reiki had no significant impact. Usual coping mechanisms were sufficient.

(continued)

Table 5. (Continued)

Ref. no.	Year	Authors	Journal	Study hypothesis	Population and study type	Outcomes	Conclusions
26	2007	Tsang KL, Carlson LE, Olson K	*Integrative Cancer Therapies*	Reiki reduces pain, fatigue, and anxiety and increases quality of life in patients with cancer. Reiki effect lasts for about 3 days.	$n = 16$ with various forms of cancer; (women = 13; men = 3); 12 white, 2 Asian, 2 Other; aged 33–84 (median age of 59 years).	Significant reduction between pretreatment and post-seventh treatment Reiki on fatigue ($p < 0.01$), pain ($p < 0.05$), and anxiety ($p < 0.05$). In comparison, there was no significant difference in the rest condition. Quality of life: Reiki condition reported a significant improvement in Functional Assessment of Cancer Therapy–General (FACT-G) pretest to post-test intervention ($p < 0.01$). No significant change in control condition.	Reiki was effective in decreasing fatigue, pain, and anxiety in patients with cancer. Overall quality of life improved compared to resting condition.
					Counter-balanced crossover trial where each individual participated in both conditions (Reiki and rest) but in random order.	Washout period: After careful monitoring, found that Reiki effect lasted for 7 days as fatigue scores did not drop.	Reiki benefited fatigued patients with cancer for at least 7 days.
18	2007	Gillespie E, Gillespie B, Stevens M	*Diabetes Care*	Reiki reduces pain in patients with diabetic nephropathy.	$n = 207$ with type 2 painful diabetic nephropathy (PDN); test vs. control with 3 groups: Reiki ($n = 93$); mimic Reiki ($n = 88$); Usual Care ($n = 26$). Usual Care was discontinued after randomization of 26 patients due to poor retention.	Significant reduction ($p < 0.05$) between baseline pain scores (McGill Pain Score) and 12-week pain scores for Reiki and mimic-Reiki groups. No significant reduction for Usual Care group. No significant reduction among final pain scores for all 3 groups (Usual Care group started with lower pain scores). Walking distance improved significantly ($p < 0.05$) for Reiki and mimic-Reiki groups; not for Usual Care group. All other measures (Visual Analogue Scale pain score; Well-Being Questionnaire; Diabetes Treatment Satisfaction Questionnaire) showed no significant difference.	Reiki was no more effective than mimic-Reiki in decreasing perceived pain and improving walking distance in patients with PDN.

24	1998	Dressen L, Singg S	*Subtle Energies and Energy Medicine Journal*	Reiki reduces pain, anxiety, and depression in chronically ill patients.	$n = 120$ who have been in pain for at least 1 year; RCT with 4 groups: Reiki, Progressive Muscle Relaxation; mimic-Reiki, and no treatment	Reiki proved significantly superior ($p < 0.001$–0.04) to other treatments on 10 of 12 variables measured. McGill Pain Score: Global Pain Intensity ($p < 0.001$); Sensory Pain Rating Index (PRI) ($p < 0.03$); Evaluative PRI ($p < 0.001$); Beck Depressive II Inventory ($p < 0.0001$); State–Trait Anxiety Inventory (State Anxiety, $p < 0.0001$), (Trait Anxiety, $p < 0.001$); Rosenberg Self-Esteem Scale ($p < 0.002$); Rotter Internal–External Locus of control ($p < 0.002$); Belief in Personal Control Scale (BIPCS) ($p < 0.01$); BIPCS-Scale C (Belief in God) ($p < 0.04$).	Reiki is an effective modality for reducing pain, depression, and anxiety. Reiki is effective in enhancing desirable changes in personality (self-esteem, locus of control). Reiki enhances one's faith in God. The effects of Reiki are not due to placebo.
27	2006	Crawford S, Leaver W, Mahoney S	*Journal of Alternative and Complementary Medicine*	Reiki results in improved memory and behavior deficiencies in patients with mild Alzheimer (MA)	$n = 24$ who scored between 20 and 24 on Annotated Mini-Mental State Examination (AMMSE); Test vs control with 2 groups: Reiki and no treatment	Reiki group showed significant ($p < 0.05$) AMMSE post-treatment scores (improved memory) over control; Reiki post-test scores in the Revised Memory and Behavior Problems Checklist (RMBPC) were significantly ($p < 0.05$) improved in both frequency and reactions over pretest and control group scores. Reiki group showed significant ($p < 0.05$–0.01) changes in memory-related and behavior-related questions.	Results indicate statistically significant ($p < 0.05$) increases in mental function (AMMSE) and memory and behavior problems (RMBPC) after Reiki treatment.
*	2001	Mauro MT	University of Alberta, Master's thesis	Reiki reduces a pregnant woman's anxiety level for amniocentesis.	$n = 30$ who were >35 years of age and between 15 and 18 weeks pregnant undergoing 1st amniocentesis; Test ($n = 10$), control ($n = 10$), and placebo ($n = 10$)	Anxiety scores were determined using Sheehan Patient-Related Anxiety Scale (SPRAS) and Subjective Unit of Disturbance Scale (SUDS). SUDS scores were obtained seven times (once before and six times after amniocentesis). Reiki and Placebo groups showed significant ($p = 0.013$) reduction in anxiety over control group as measured by SUDS. Significance between Reiki and Placebo could not be established due to low sample size.	Tentative positive results supports a larger study.

*Mauro MT. The effect of Reiki therapy on maternal anxiety associated with amniocentesis. Masters thesis. University of Alberta, School of Nursing, 2001.

their absence discussed in any of the Reiki studies, a fact that greatly diminishes the quality assessment of these trials.

We were only able to uncover 12 studies on which to perform our evaluation; these 12 studies had 31 different outcomes. This clearly shows that Reiki researchers are in "exploratory mode" in terms of understanding the benefits of Reiki. Although most of the outcomes indicated a positive outcome, it is quite possible that bias against the null hypothesis and the "file drawer syndrome" resulted in an unknown number of negative trials on Reiki never being published.[28] Hence, to further evaluate the validity of claimed therapeutic effects of Reiki, trials are needed with larger study populations and better reporting quality. It is obvious that these trials should be registered with a clinical trials register to avoid publication bias. In contrast, some researchers might argue that such studies should not be performed at all, since the biological substrate for Reiki's effect is unknown and plausible at best. However, while it may be difficult to scientifically assess Reiki's method of action with our current technology, it is possible to determine Reiki's efficacy. Given the increase in patient spending in CAM, we believe it is our job as researchers to conduct good quality trials which add to or refute the efficacy data of a given therapy.

Western medicine operates under the paradigm of evidence-based medicine. RCTs are considered the "gold standard" for providing evidence on effectiveness of biomedical interventions.[29] While Reiki itself is not a biomedical intervention, its efficacy needs to be proven, in service of good science. Current literature has suggested that RCTs alone may be limited in their ability to measure "whole person" healing, which is characteristic of CAM therapies (such as Reiki).[11] Adequate standards of reporting are necessary so that readers can make assessments on the internal and external validity of the trial as well as properly assess the results. The CONSORT statement was developed to aid authors in adequately reporting (and hopefully designing) their studies. In general, current reporting of trials is not considered adequate. In a study that looked at 253 RCTs reported in 5 leading medical journals (which have actively embraced the CONSORT) between 2002 and 2003, less than 60% of the trials adequately reported on allocation concealment (48%), randomization implementation (55%), blinding status of participants (40%), blinding of health care providers (17%), and blinding of outcome assessors (47%).[30]

Our findings are in agreement with an earlier observation that reporting of CAM trials is also poor.[31] In a project that assessed a sample of 206 RCTs of herbal medicine interventions, less than one third adequately reported whether those administering the intervention were blinded (28%), the methods for implementation (22%), and generation of the random allocation sequence (21%), whether there were protocol deviations (18%) or whether outcome assessors were blinded (14%).[29]

Biofield Energy Therapies are controversial to conventional health care providers and policymakers for two main reasons: (1) the dearth of rigorous scientific data that support or refute their efficacy, and (2) because biofields currently cannot be measured, so their scientific method of action remains questionable. While the second point may take more time to resolve, the first point can be addressed immediately, through adequate scientific reporting. In order for efficacy to be scientifically recognized, adequate reporting is required to inform readers of the purposeful deviations from traditional RCT design so readers can judge the influence of methodological flaws on the results of trials. In order to be accepted as true scientific evidence, adequate reporting of future Reiki RCTs or mixed methods RCTs is crucial. Of the items that were not reported adequately, all of them were reported adequately in at least one study, indicating that it is possible to report adequately.

A potentially significant finding from this study is that the level of training and/or years of experience of the Reiki practitioner seemed to be important for Reiki to be effective. A finding from the *Efficacy of Distant Healing* suggests that healers should have at least 3 years of practice to be considered performing optimally.[32] While the author of this study was not specifically referring to Reiki practitioners, it does make sense that a certain level of expertise improves the Reiki practitioners' efficacy.

We exempted Reiki Masters from the "3 years of practice" criteria that we applied to Reiki Practitioners (Level I and Level II) due to the intensive training that it takes to become a Reiki Master. Level II training is usually only given after a student has been practicing Level I Reiki for at least 3 months, though this can vary somewhat depending on the individual. Reiki Master training is primarily intended for people who have made Reiki their life's work. Depending upon the individual, Reiki Master level training is usually given only after a student has been practicing Level II Reiki for at least 1 year and the training is quite intensive.[9]

Studies that used Reiki practitioners (Level I or II) with less than 3 years experience showed no significant outcome, while in all but one of the studies that used a Reiki Master, there was a significant difference in measured outcome in the Reiki group. The goal of Reiki is to direct healing energy into the recipient. It has been suggested that the number of changes of Extra-Low Frequency (ELF) Magnetic Fields coming from Reiki practitioners' (i.e. Level I or Level II; non-Reiki Masters) hands differs significantly than the number of changes of ELFs coming from Reiki Masters' hands; however, the results of these studies have only been published in abstract and book form.[33] Although this is not a definitive test for efficacy of Reiki healers (no known test exists as far as we know), this does suggest that there is a difference between Reiki Masters and non-Master Reiki practitioners.

Conclusions

In order for Reiki studies to be evaluated and accepted based on their stated outcomes, authors need to ensure that the methodological quality and reporting of the study are adequate. This will only be achieved when authors are educated and disciplined in their approach to designing, executing, and reporting their studies. Alternative therapy journals should also actively embrace the CONSORT criteria to ensure that CAM therapies are reported at the highest scientifically accepted level. To date, based on the poor quality of studies and their reporting, it is currently impossible to draw definitive conclusions about the efficacy of Reiki.

Disclosure Statement

The authors state that no competing financial interests exist.

References

1. Overview of complementary and alternative medicine [homepage on the Internet]. Online document at: http://nccam.nih.gov.myaccess.library.utoronto.ca/health/backgrounds/energymed.htm. Accessed June 9, 2008.
2. What is CAM? [homepage on the Internet]. Maryland: University of Maryland School of Medicine, Cochrane Collaboration Fall 2007. Online document at: www.compmed.umm.edu/about_faq.asp. Accessed June 9, 2008.
3. Complementary and alternative medicine in Canada: Trends in use and public attitudes, 1997–2006 [homepage on the Internet]. Vancouver, BC: The Fraser Institute, May 2007. Online document at: www.fraserinstitute.org/Commerce.Web/product_files/Altmedicine.pdf. Accessed June 9, 2008.
4. Gordon JS. The White House commission on complementary and alternative medicine policy and the future of healthcare. Altern Ther Health Med 2004;10:20–23.
5. Schiller R. Reiki: A starting point for integrative medicine. Altern Ther Health Med 2003;9:20–21.
6. Vitale A. An integrative review of Reiki touch therapy research. Holist Nurs Pract 2007;21:167–179.
7. Astin JA. Why patients use alternative medicine: Results of a national study. JAMA 1998;279:1548–1553.
8. Miles P, True G. Reiki: Review of a biofield therapy history, theory, practice, and research. Altern Ther Health Med 2003;9:62–72.
9. About Reiki [homepage on the Internet]. Online document at: www.reiki.ca Accessed January 6, 2008.
10. Crawford CC, Sparber AG, Jonas WB. A systematic review of the quality of research on hands-on and distance healing: Clinical and laboratory studies. Altern Ther Health Med 2003;9(3 suppl):A96–A104.
11. Verhoef MJ. Complementary and alternative medicine whole systems research: Beyond identification of inadequacies of the RCT. Complement Therap Med 2005;13:206.
12. Gagnier JJ, Boon H, Rochon P, et al. Recommendations for reporting randomized controlled trials of herbal interventions: Explanation and elaboration. J Clin Epidemiol 2006;59:1134–1149.
13. Altman DG, Schulz KF, Moher D, et al. CONSORT GROUP (Consolidated Standards of Reporting Trials). The revised CONSORT statement for reporting randomized trials: Explanation and elaboration. Ann Intern Med 2001;134:663–694.
14. Olivo SA, Macedo LG, Gadotti IC, et al. Scales to assess the quality of randomized controlled trials: A systematic review. Phys Ther 2008;88:156–175.
15. Jadad AR, Moore RA, Carroll D, et al. Assessing the quality of reports of randomized clinical trials: Is blinding necessary? Control Clin Trials 1996;17:1–12.
16. Wirth D, Brenlan D, Levine R, Rodriquez C. The effect of complementary healing therapy on postoperative pain after surgical removal of impacted third molar teeth. Complement Ther Med 1993;1:133–138.
17. Mackay N, Hansen S, McFarlane O. Autonomic nervous system changes during Reiki treatment: A preliminary study. J Altern Complement Med 2004;10:1077–1081.
18. Gillespie EA, Gillespie BW, Stevens MJ. Painful diabetic neuropathy: Impact of an alternative approach. Diabetes Care 2007;30:999–1001.
19. Kumar AR. Changes in the isoprenoid pathway with transcendental meditation and Reiki healing practices in seizure disorder. Neurol India 2003;51:211–214.
20. Potter PJ. Breast biopsy and distress: Feasibility of testing a Reiki intervention. J Holist Nurs 2007;25:238–248, discussion 249–251.
21. Olson K, Hanson J, Michaud M. A phase II trial of Reiki for the management of pain in advanced cancer patients. J Pain Sympt Manage 2003;26:990–997.
22. Vitale AT, O'Connor PC. The effect of Reiki on pain and anxiety in women with abdominal hysterectomies: A quasi-experimental pilot study. Holist Nurs Pract 2006;20:263–272, quiz 273–274.
23. Shore AG. Long-term effects of energetic healing on symptoms of psychological depression and self-perceived stress. Altern Ther Health Med 2004;10:42–48.
24. Dressen LJ, Singg S. Effects of Reiki on pain and selected affective and personality variables of chronically ill patients. Subtle Energies Energy Med J 1998;9:51.
25. Shiflett SC, Nayak S, Bid C, et al. Effect of Reiki treatments on functional recovery in patients in poststroke rehabilitation: A pilot study. J Altern Complement Med 2002;8:755–763.
26. Tsang KL, Carlson LE, Olson K. Pilot crossover trial of Reiki versus rest for treating cancer-related fatigue. Integrat Cancer Ther 2007;6:25–35.
27. Crawford SE, Leaver VW, Mahoney SD. Using Reiki to decrease memory and behavior problems in mild cognitive impairment and mild Alzheimer's disease. J Altern Complement Med 2006;12:911–913.
28. Koren G. Bias against the null hypothesis in maternal-fetal pharmacology and toxicology. Clin Pharmacol Therapeut 1997;62:1–5.
29. Gagnier J, Moher D. Helping consumers of healthcare knowledge: Improving the quality of reports of randomized controlled trials. Explore J Sci Healing 2006;2:141–142.
30. Mills EJ, Wu P, Gagnier J, Devereaux PJ. The quality of randomized trial reporting in leading medical journals since the revised CONSORT statement. Contemp Clin Trials 2005;26:480–487.
31. Linde K, Jonas WB, Melchart D, Willich S. The methodological quality of randomized controlled trials of homeopathy, herbal medicines and acupuncture. Int J Epidemiol 2001;30:526–531.
32. Astin JA, Harkness E, Ernst E. The efficacy of "distant healing": A systematic review of randomized trials. Ann Intern Med 2000;132:903–910.
33. Schwartz G. The energy healing experiments. New York: Atria Books, 2007.

Address correspondence to:
Gideon Koren, M.D., F.R.C.P.C., F.A.C.M.T.
Division of Clinical Pharmacology, Room 8232
The Hospital for Sick Children
555 University Avenue
Toronto, Ontario M5G 1X8
Canada

E-mail: gkoren@sickkids.ca