THE CENTER FOR
REIKI RESEARCH

Guidelines for Conducting Quality Reiki Research

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The Touchstone process was conceived by William Rand, Founder and President of The International Center for Reiki Training, with the purpose of making the results of evidence-based Reiki research easily accessible to the lay public and the academic and medical communities, thus providing a critical framework against which to evaluate Reiki's effectiveness.

In evaluating the research reviewed under the Touchstone process the Touchstone research team noticed that a number of Reiki studies were poorly designed, thus rendering results that are of limited value. One of the outcomes of the Touchstone process has been the generation of professional guidelines that the team considers critical for rigorous Reiki study design.[1] This article is an outgrowth of these guidelines. It is our hope that investigators will use the information in this article for the development of future Reiki research studies. In addition, the Touchstone research team also offers a consultation service for those wanting expert advice and guidance in designing their Reiki research study.

In the course of using the Touchstone process to review the entirety of conducted preclinical and clinical Reiki research published in English in peer-reviewed scientific journals, the team noted several aspects of study design that should be considered in the creation of viable research that will yield results which can be used to inform further research or the practice of Reiki. Because Reiki research is a relatively new field (the first US study was published in 1989), there is much that can be done to improve the availability of meaningful research results. Fortunately, recent research has shown some promising results, and many larger scale clinical studies are currently being conducted through funding provided by the National Institutes of Health's (NIH) National Center for Complementary and Integrative Health (NCCIH).

This article contains our best practices recommendations for investigators interested in conducting research on Reiki's effectiveness. These guidelines are based on current standards for preclinical and clinical study design, as well areas in which the team noticed weaknesses in the current body of Reiki research. This article is by no means exhaustive, as the fields of research methods and statistical analysis are vast and contain many subtleties; however, it can serve as a quick guide regarding the many consideration that need to be taken into account when

undertaking a Reiki research study. Most of these considerations are applicable to all good research, but some aspects are especially important in detecting the often subtle effects of Reiki treatment.

Essential Components of Good Study Design:

In their classic text, Campbell and Stanley (1963) emphasize the importance of controlled experiments that allow independent researchers to repeat the conditions and replicate the results of a study. Good study design is also important in helping to insure that research results can be interpreted with confidence. In our review of Reiki research, the team found that most studies were lacking in one or more areas necessary for interpretable, replicable research.

Critical components of good study design:

1. Sample Selection
2. Randomization of participants
3. Comparison conditions
4. Appropriate controls
5. Blinding of participants and data collectors
6. Standardized implementation of treatment protocol
7. Careful selection of outcomes and their measurement with reliable relevant instruments
8. Appropriate analyses

It is also important to minimize extraneous events, randomize raters, and pay attention to any systematic loss of data or participants across the comparison groups. Further discussion of these topics is presented below.

Sample Selection:

There are several important considerations to keep in mind when selecting a sample. Who should be included? What are the criteria for including them? What makes them eligible or ineligible for inclusion? Be sure to provide a thorough description of the sample (i.e., race, ethnicity, gender, age group, rural/urban/suburban, education, socioeconomic status, illness or other medical condition, etc.) in the write-up of your study so that readers can determine whether your results will translate to their populations. For example, in our survey of Reiki research, we found that most studies did not describe the ethnic (and in many cases, age and gender) breakdown of their samples. This makes it difficult to determine the generalizability of the study results since different groups may respond differently to questions about their health and wellbeing, and may even respond differently to medical treatment.

Sample Size:

You also need to make sure that the sample size should be large enough to insure that any statistical results achieved are meaningful. Unless you are conducting your study on every single person in your population of interest (say, all adult women who have undergone surgery for breast cancer), the results obtained from the sample you choose are only an approximation of the results that would be obtained had everyone been surveyed. Since it is usually impossible to study everyone in a given population, a sufficiently large and representative sample must be utilized in order to extrapolate findings to the larger population and determine with confidence

that findings truly support hypotheses. Cohen (1988) offers a thorough discussion of sample size and power along with many applied examples.

Sample Recruitment:

Think carefully about the research questions you are trying to answer and then choose your sample accordingly. Factors in the selection of your participants may have an unintended effect on the outcome of a study. Benor (2001) emphasizes the fact that in health research it is important to take into account the characteristics of your sample, including the duration of illness, whether or not the participants are taking any medication, and whether or not they are volunteers versus having been selected by the researcher. You want to make sure that you are not introducing any systematic bias into your recruitment of participants, or that the participants' motives are likely to cause any bias.

When writing up study results, it is important to describe your recruitment procedures. For example, where did you find your participants? Did you randomly select them from a large pool of people who represent the larger group you are interested in studying? Or did you simply include people who responded to an ad you placed in your local paper? Were they part of a larger group, such as cancer patients in a large urban hospital center, nursing mothers who are part of a nationwide support group, or undergraduate psychology students?

This information provides readers with a solid understanding of the framework within which your study was conducted and allows them to draw their own conclusions about the meaning of your results. It also allows other researchers to accurately replicate your study.

Randomization of Participants:

Ideally, you should randomly select your subjects from your larger target population and randomly assign them to either the treatment or control conditions. When participants are not randomly assigned to comparison groups, bias may be introduced. For example, as mentioned above, Benor (2001) has pointed out that participant factors like the nature of their illness, whether or not they are taking any medication, and whether they are volunteers or are chosen by the researchers may introduce an unintended and systematic effect on the results of the study.

In our review of Reiki research studies, we found that many did not randomly assign participants to treatment and control groups. Lack of randomization makes it difficult to interpret the results of these studies since there may be systematic bias in the groups due to some underlying similarity in characteristics that was not measured. For example, if people were put into a Reiki treatment group because they wanted Reiki treatment, they may be more responsive to Reiki than those who chose not to receive it.

To minimize the impact of uncontrolled variables, treatment and control groups should resemble one another as closely as possible. The best way to do this is to assign participants to treatment and control groups through the use of a random number generator. Random.org offers a good one that is free.

Randomization can occur at the group level (for example, entire classes within a college department could be assigned to treatment or control conditions) or at the individual level.

Because the effects of Reiki are often subtle, randomization at the individual level is preferable as it eliminates any systematic bias that may be inherent in a group setting.

If randomization is not possible, you will need to use some method of correcting for this in your analyses, such as through the statistical demonstration that there were no significant baseline differences between treatment and comparison groups, or the use of covariates in your analytic models.

Comparison Conditions:

Some quantitative studies the team reviewed lacked comparison groups, making it impossible to conclusively determine whether any changes that occurred from baseline to follow-up were simply due to the passage of time, environmental factors, or were, in fact, a result of the Reiki treatment. These studies would have benefited greatly from the inclusion of a no-treatment control group.

Because of the often-subtle nature of Reiki-induced outcomes, study design is enhanced by the inclusion of a placebo control in addition to a no-treatment control. The inclusion of a placebo control, or sham Reiki treatment (e.g., a person who is untrained in energy healing assumes the hand positions of a Reiki practitioner but does not actually deliver Reiki energy to the participant), allows the researcher to determine if the observed effects go beyond those caused by the participants simply being touched. In cases where Reiki is performed without touch, the sham condition can help to determine whether the belief that they are undergoing treatment actually produces healing effects in the participants.

The importance of sham treatments in complementary medical practice was highlighted in a 2008 study by Kaptchuk and his colleagues. They found significantly different, and increasingly effective, reduction in irritable bowel symptoms among participants receiving one of three treatments, respectively: waitlist control, sham acupuncture, and sham acupuncture administered by practitioners who demonstrated a warm, friendly manner and active listening. It appears that, while the belief that they were being treated was more effective than receiving no treatment, the extra attention and human warmth acted to boost the placebo effect even further.

Controls:

In scientific studies it is important to control factors not directly addressing the research question. This is especially important in order to detect subtle effects in Reiki research. All variables, other than treatment, should be held as constant as possible. Randomization helps to address this. It is also important that the control group be matched to the treatment group as closely as possible, both in terms of their demographic profile and the way they are handled by the experimenters.

In more established fields of research, studies may include control groups receiving treatments of known benefit as comparison. However, because Reiki research (and energy therapy research in general) is a relatively new field, effect standards are still being established. Therefore, it is very important to include no-treatment control and sham treatment comparison conditions.

For example, in our review of Reiki studies, we found that while Crawford et al. (2006) showed that Reiki significantly improved cognition skills in elderly patients with mild Alzheimer's disease or mild cognitive impairment, without a sham Reiki group it could not be determined how much of the beneficial effects were due to the participants being touched and how much was due to the actual effects of Reiki.

Another consideration is controlling for the experience and training levels of the Reiki healers who will be delivering treatment. Because Reiki practitioners can vary greatly in terms of their certifications and experience, it is preferable to restrict delivery to one clearly defined level, training perspective, and level of experience such as Reiki Master (Usui) who have 3 or more years giving regular Reiki sessions.

Blinding of Participants and Data Collectors:

Blinds are methods for keeping your participants and data collectors from being aware of which treatment condition the participants have been assigned to. Benor (2001) points out that blinds are of particular importance in the study of complementary medical practices such as Reiki, in that they prevent experimenters and subjects from responding according to expectations and beliefs around the topic of healing.

When designing a good Reiki study, it is important to consider how the expectations of the participants and data collectors may affect the outcome of the study. Simply believing that one is being healed can lead to a significant reduction of symptoms. And data collectors who are aware of the participants' treatment conditions may introduce their own biases. For example, they may ask interview questions in a different tone of voice; they may handle measurement instruments differently, or their body language may evoke differential responses.

Treatment Protocol:

In well-designed research studies, the treatment protocol is implemented consistently throughout the study from the manner is which training is conducted for those implementing the protocol through the actual implementation, including periodic checks by objective observers to make sure that the protocol is being implemented consistently.

The importance of this was illustrated in Kaptchuk et al. (2008). This study found that having a healer deliver a given treatment in a warm and friendly manner resulted in significantly greater reduction of participants' symptoms than a treatment given in a professional, but not particularly warm manner.

Benor (2001) points out that it is important to include in your research report a solid description of the Reiki practitioners, their methods, and their beliefs. It is also important to describe their training and length of experience in practicing Reiki. All of these things may affect their approach to the treatment protocol in ways that are not necessarily observable and so need to be described in the study in order to inform readers of potential inconsistencies in the delivery of the Reiki treatment.

Outcomes:

In order to capture the subtle effects of Reiki therapy, it is more effective to use a combination of

psychological and physiological measures, and both qualitative and quantitative methods. And the outcomes you choose should be clearly defined (e.g., anxiety, pain, heart rate, stress response, as measured by standardized survey instruments, direct observation, physiological measures, etc.).

Your outcome measures should also have demonstrated reliability and validity. That is, studies by independent investigators should have demonstrated that your chosen assessment tools have acceptable levels of reliability and validity—they measure what they purport to measure and do so consistently. If the outcome measures are not tried and true scales, but rather objective measurements of your participants' responses, you will need to describe the procedural checks you used to confirm that your data is valid (such as pre- and post-experimental equipment calibration to check for data "drift").

Data Collection:

Data collection procedures should be clearly defined to ensure uniformity and prevent bias. For example, data collectors should be blinded to participants' group assignment so as to minimize bias. In some cases, such as participant interviews, it is helpful to have an observer oversee a random set of interviews to make sure that the data collectors are being consistent and following the protocol with fidelity.

Statistical Analyses:

Once you have collected your data, you can engage in the fun part of your study—running statistical analyses to determine whether there were any significant differences between your treatment and control groups. Since you most likely did not conduct your study on your entire population of interest, your analyses will help to determine if the results you have obtained from your sample are likely to be true in the greater population.

When planning your Reiki study and thinking about how you will analyze your data, make sure that your analyses are appropriate to the nature of your data. For example, if you collect your data over a series of time periods, then you need to utilize a repeated measures analysis of variance (rmANOVA). A thorough introduction to appropriate analytic techniques can be found in Ott & Longnecker (2008).

Any potential confounding variables that you were not able to control for in your sample selection or comparison conditions need to be controlled for in your statistical analyses.

Ideally, missing data will not be an issue, but if it is, it must be taken into account when conducting your analyses. This is especially important if you lose a greater number of participants in one condition versus the others. For example, if you are conducting your study among people with a medical condition and have a no-treatment control group, you may experience a greater number of drop-outs than you do in your Reiki treatment group due to the fact that the control group is dissatisfied with not having any treatment.

Interpretation of Results:

When you present your results, be sure that your conclusion takes into account factors such as attrition, missing data, confounding or bias. Presenting both the strengths and weaknesses of

your study allows readers to properly interpret results and informs those who may want to replicate or expand upon your research.

Conclusion:

If you have paid careful attention to the selection of your sample; you have randomized participants into various comparison conditions; the treatment protocol has been followed consistently; bias has been limited in data collectors; your outcomes are meaningful; your measures are reliable and valid; and the statistical analyses used are appropriate—then you can be confident that you have done a good job in conducting your research study. And the results of your study will be of great help to those who want to better understand the effects of Reiki, as well as those who, like you, want to further the field of Reiki research.

[1] A full description of the process and findings of the Touchstone process can be found in Baldwin, Brownell, Merrifield, Rand and Vitale (2009).

References:

Baldwin, A. L., Brownell, E, Merrifield, N. Rand, W. & Vitale, A. (2009). *The Touchstone process: An ongoing critical evaluation of Reiki in the scientific literature.* Manuscript submitted for publication.

Benor, D. J. (2001). *Healing research: Volume I, Spiritual healing: Scientific validation of a healing revolution.* Southfield, MI: Vision Publications.

Campbell, D. T. & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for Research.* Chicago: Rand McNally.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences.* Mahwah, NJ: Lawrence Earlbaum Associates.

Crawford, S. E., Leaver, V. W. & Mahoney, S. D. (2006). *Using Reiki to decrease memory and behavior problems in mild cognitive impairment and mild Alzhemier's Disease.* The Journal of Alternative and Complementary Medicine. 12(9), 911-913.