

Center for Reiki Research Study Summary

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In vitro effect of Reiki treatment on bacterial cultures: role of experimental context and practitioner well-being

Reference

Rubik B, Brooks AJ, Schwarz GE. In vitro effect of reiki treatment on bacterial cultures: role of experimental context and practitioner well-being. *Journal of Alternative and Complementary Medicine*;12(1):7-13, 2006.

Purpose of Study

The purpose of this exploratory study was to determine if there is a consistent change in growth rate of heat-stressed bacterial cultures treated by Reiki under two different contexts:

- (1) A "healing context," assessing the effects of Reiki on bacterial cultures immediately following Reiki treatment of a patient with acute pain and
- (2) A "non-healing context," assessing the effects of Reiki performed solely on bacterial cultures with no patient present.

Objective/goals/hypotheses

The objectives were to answer the following questions:

- (1) What are the effects of Reiki on the growth of in vitro cultures of growth-challenged bacteria?
- (2) Does a "healing context" influence the effects of Reiki on bacterial culture growth?
- (3) Does practitioner well-being influence the effects of Reiki on bacterial culture growth?

Methods

Part of the laboratory was set up to mimic the environment of a typical Reiki treatment room.

Treatment and control rooms were matched in residual electromagnetic pollution. Fourteen Reiki practitioners performed three "non-healing context" runs, providing Reiki for 15 minutes to the cultures and two "healing context" runs in which a 30-minute patient treatment preceded bacterial Reiki treatment. Thirteen of the practitioners were from a documented Usui lineage and one had nontraditional training. A modified Arizona Integrated Outcomes Scale (AIOS) was used to assess change in practitioner mood for each session, pre- and post-bacterial treatment, and also post patient treatment. Additional post-test items assessed satisfaction with being an energy conduit, comfort giving Reiki, and satisfaction with treatment effectiveness. Following treatment, samples were incubated, treated, and assayed according to standard procedures, then counted under blinded conditions four times the next day, using an automated colony counter.

Study design included:

1. Blinded observation by the experimenters
2. Random assignment of bacterial cultures (wild type *E. coli* K12) to control and test groups following heat-shock
3. Bacterial control samples matched to test samples in pairs, and
4. Matched pairs of samples processed in randomized order to control for time-ordering effects

Results

Influence of Reiki

The bacteria count was greater for the Reiki-treated bacteria only in the healing context condition. A Chi-square analysis showed 59% of the runs in the healing context were in the hypothesized direction (Reiki greater than control) versus 45% in the non-healing context ($\chi^2(1) = 15.51$; $p < 0.001$).

Context

In the non-healing context, bacteria count was greater for the Reiki-treated bacteria in 19 of the 42 runs. In the healing context the bacteria plate count was greater in the Reiki condition for 14 of the 23 runs. A significant healing context by treatment condition interaction was found ($F(1,408) = 3.865$; $p < 0.05$).

Effect of practitioner well-being

In all instances, practitioners who began sessions with higher ratings of well-being demonstrated "Reiki-better-than-control." Practitioners who started sessions with lower ratings of well-being demonstrated results of "control-greater-than-Reiki."

Strengths

This study includes a quantitative research design that is exploratory regarding the influence of Reiki on bacterial growth that holds promise with a larger sample.

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Weaknesses

The study was over-designed and under-powered with respect to the number of questions they were asking, and, therefore, led to confusing results.

Problematic aspects of this study are:

1. The primary endpoint, bacterial growth, showed a confounding result that was never addressed by the authors: the control cultures in the non-healing vs healing groups showed dramatically different growth following heat stress. They should have been equivalent. This result alone throws into question all subsequent interpretations and conclusions, which were based on this primary endpoint.
2. The Reiki practitioners were mixed in terms of their credentials, and so could have led to confounding results.
3. A lack of clarity in the report of the research that detracts from results disclosed.

Additional comments

The usefulness of this investigation should be confined to the effects of Reiki on bacterial cell growth. Outcome effectiveness can be seriously questioned regarding Reiki practitioner well-being and other variables because they are not grounded in full explanation of instruments/tools, rigor and sample size.

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