Immediate effects of Reiki on heart rate variability, cortisol levels, and body temperature in health care professionals with burnout

Reference

Purpose of Study
To determine if Reiki treatments have an effect on the symptoms of health-care professionals diagnosed with Burnout Syndrome (BS).

Objective/goals/hypotheses
It was hypothesized that a parasympathetic response would occur after Reiki as indicated changes in heart rate variability (HRV), increases in body temperature and salivary flow rate and a decrease in salivary cortisol levels. A secondary aim of the study was to analyze the relationships among HRV, body temperature, and salivary changes.

Methods
Twenty-one self-recruited female health care professionals, with a mean age of 44 years and a psychologist-based diagnosis of Burnout Syndrome (BS) attended two treatment sessions held in the morning one week apart. In the first session baseline measurements of HRV via Holter monitor (5-minute recording), body temperature, and stimulated salivary flow rate with salivary cortisol concentration were collected. Participants were then randomly assigned to a 30-minute Reiki treatment or placebo non-intentional Reiki (performed by a nurse with no Reiki experience) after which the same measures were repeated. The second session was the same as the first except that each participant received the alternate treatment compared to the first session.

Results
Reiki treatment, but not placebo treatment, produced a statistically significant increase in HRV (as measured by SDNN), a decrease in the low frequency component of HRV indicating reduced sympathetic activity, and an elevation of body temperature. The high frequency component of HRV, which reflects parasympathetic activity was not affected by either treatment, nor were the salivary flow rate or the salivary cortisol concentrations. These results indicate that Reiki treatment produces a mild but significant relaxation response in nurses with BS symptoms.

Strengths
A very carefully designed placebo-controlled, repeated measures, cross-over, single blind, randomized trial showing that Reiki promotes relaxation by reducing sympathetic autonomic stimulation, consistent with previous findings in healthy people and rats. Randomized non-contact Reiki with sham non-contact Reiki control meant that the influence of touch alone or attention alone was eliminated.

Weaknesses
1. The effects of respiration rate on HRV were not considered and this may have confounded the LF component of the HRV data.
2. Measurements were taken immediately after intervention so that the duration of action was not addressed.
3. The sample size was small such that findings may or may not be generalizable.