

SHORT REPORT

## Using Reiki to Decrease Memory and Behavior Problems in Mild Cognitive Impairment and Mild Alzheimer's Disease

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### ABSTRACT

**Objectives:** This empirical study explored the efficacy of using Reiki treatment to improve memory and behavior deficiencies in patients with mild cognitive impairment or mild Alzheimer's disease. Reiki is an ancient hands-on healing technique reputedly developed in Tibet 2500 years ago.

**Design:** This study was a quasi-experimental study comparing pre- and post-test scores of the Annotated Mini-Mental State Examination (AMMSE) and Revised Memory and Behavior Problems Checklist (RMBPC) after four weekly treatments of Reiki to a control group.

**Settings/location:** The participants were treated at a facility provided by the Pleasant Point Health Center on the Passamaquoddy Indian Reservation.

**Subjects:** The sample included 24 participants scoring between 20 and 24 on the AMMSE. Demographic characteristics of the sample included an age range from 60 to 80, with 67% female, 46% American Indian, and the remainder white.

**Interventions:** Twelve participants were exposed to 4 weeks of weekly treatments of Reiki from two Reiki Master-level practitioners; 12 participants served as controls and received no treatment.

**Outcome measures:** The two groups were compared on pre and post-treatment scores on the AMMSE and the Revised Memory and Behavior Problems Checklist (RMBPC).

**Results:** Results indicated statistically significant increases in mental functioning (as demonstrated by improved scores of the AMMSE) and memory and behavior problems (as measured by the RMBPC) after Reiki treatment. This research adds to a very sparse database from empirical studies on Reiki results.

**Conclusion:** The results indicate that Reiki treatments show promise for improving certain behavior and memory problems in patients with mild cognitive impairment or mild Alzheimer's disease. Caregivers can administer Reiki at little or no cost, resulting in significant societal value by potentially reducing the needs for medication and hospitalization.

### INTRODUCTION

Always fatal and with no known cure, Alzheimer's disease (AD) afflicts over 2 million Americans.<sup>1</sup> Mild cognitive impairment (MCI) is often a precursor to AD.<sup>1</sup> A wide range of therapies are used to treat the symptoms of AD and

MCI. This study presents the results of the use of Reiki on clients with MCI or mild AD. Reiki is an ancient form of hands-on healing applied by trained practitioners. Electromagnetic currents 1000 times stronger than in heart muscle have been measured from Reiki healers' hands in the range of 2–20 Hz, centering at 8–10 Hz.<sup>2</sup> Profound healing of dam-

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TABLE 1. SUMMARY OF GAIN SCORES IN FREQUENCY OF OCCURRENCE AND REACTION IN RMBPC QUESTIONS<sup>a</sup>

Question factor	Questions with gain scores negative, positive, or no change					
	Negative		Positive		No change	
	Reaction	Frequency	Reaction	Frequency	Reaction	Frequency
Memory related	1, 2, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	0	3	0	0
Disruption factor	9, 10, 24	10, 24	16	9, 11, 16	8, 11, 13, 14, 15	8, 13, 14, 15
Depression factor	12, 17, 18, 19, 21, 23	12, 17, 18, 19, 21, 23	0	0	20, 22	20, 22

<sup>a</sup>Negative scores indicates improved behavior or memory. RMBPC, Revised Memory and Behavior Problems Checklist.

aged tissue and some psychological impacts have been measured when energy at 8–10 Hz is applied.<sup>2</sup>

## MATERIALS AND METHODS

A quasi-experimental study incorporating a pretest-posttest design using the Annotated Mini Mental State Examination (AMMSE) and the Revised Memory and Behavior Problem Checklist (RMBPC) was conducted.<sup>3</sup> Participants were recruited from the Passamaquoddy Indian Reservation and Perry, Maine. Candidates scoring between 20 and 24 on the AMMSE were selected. The demographic sample for this study had 67% female, 54% white, and 46% American Indian, compared to the local population: 51.2% female, 93.5% white, and 4.4% American Indian, and national population: 50.8% female, 80.7% white, 1.0% American Indian, and 18.3% other. The age distribution was 11 between 60 and 69, 9 between 70 and 79, and 4 more than 80.

Two groups of 12 randomly selected participants were selected, with one group receiving Reiki and the other no treatment. Reiki treatments were given by two Usui Reiki masters for 30 minutes per week for 4 weeks. Scores of pre- and post-tests of the AMMSE and RMBPC were statistically compared. The Walden University Committee on Ethical Standards in Research, Minneapolis, Minnesota, approved this research.

The 12-question AMMSE asks the test taker to perform a memory task. The AMMSE is reliable and valid; test-retest Pearson  $r$  values are 0.887 after 28 days.<sup>4</sup> Concurrent validity Pearson correlation scores between the Wechsler Adult Intelligence Scale is 0.776.<sup>4</sup>

Behavior changes were measured using the 24-question RMBPC.<sup>4</sup> The questions are grouped in three factors; memory, disruption, and depression factors. Each question is scored separately in frequency of occurrence and strength of reaction to the caregiver. Reliability scores between patients' behavior and caregiver reaction are 0.84 and 0.90.<sup>4</sup> Concurrent and discriminant validity were significantly predictable compared to the AMMSE and other depression scales.<sup>5</sup>

## RESULTS

A Fisher Exact Test comparison of the demographic distributions of the treatment groups and control groups indicated no significant difference at  $p < 0.05$ . AMMSE post-treatment scores were higher (improved memory) and post-test scores in the control group were lower, but not significant at  $p < 0.05$ . The scores suggest that mental ability improved after the 4 weeks of Reiki treatment compared to the control group, but not significantly.

A between-groups  $t$ -test comparison of AMMSE scores in posttest treatment and posttest control groups indicated a

TABLE 2. WILCOXON SIGNED RANK TEST SIGNIFICANT  $p$ -VALUES

Question	Frequency $p$ -values	Reaction $p$ -values
2. Remembering recent events	0.049*	0.004*
4. Losing or misplacing things	NS	0.002**
7. Difficulty concentrating	0.004**	0.002*
10. Waking at night	0.014**	0.023**
12. Appearing anxious or worried	0.001**	0.004**
17. Appearing sad or depressed	NS	0.002*
18. Expressing feelings of hopelessness	0.031*	0.016**
23. Feeling like a failure	0.016**	0.016**

Level of significance:  $p < 0.05^*$ ;  $p < 0.01^{**}$ .

statistically significant difference ( $p = 0.005$ ). This signified that the Reiki treatment might have had a beneficial effect in memory-related activity. The paired  $t$ -test analysis of the pretest and post-test treatment groups and individual results of each question were not significant.

Posttest scores in the RMBPC in both frequency and reaction were significantly improved ( $p < 0.05$ ) over pretest and control group scores. The memory-related and depression-related questions demonstrated greatest impact by the Reiki treatment (Table 1). A between-groups post-test and post-treatment comparison  $t$ -test was significantly different for both the frequency and reaction scores ( $p = 0.027$  and  $p = 0.036$ ). Pre-and post-test treatment reaction scores were significantly different at  $p = 0.041$ .

A Wilcoxon Signed Rank test was run on each question in the RMBPC frequency and reaction groups. Table 2 provides a summary of the questions having a significant  $p$  value in frequency of occurrence and reaction. The scores of three of the memory-related questions, four of the eight depression-related, and one of the disruption-related questions were significantly improved.

## DISCUSSION

Several confounds must be accounted for in this study. The sample size was small, but sufficient;<sup>3</sup> it was equivalent among clients in test and control groups but not representative to the general population; those participating did so voluntarily, were familiar with Reiki, and may have expected improved results, the affecting the scores. Two Reiki Masters with years of experience in Reiki treatment provided the Reiki. Results of Reiki treatment might be different when performed by new initiates of Reiki I or Reiki II level practitioners.

Several factors strengthened this study. There were no dropouts and the sample size was sufficient. The testing circumstances were stable, with no variance in time, location, or setting. The participants were equivalent in mental and behavior ability. Participants reported no significant changes in pharmacologic or other therapy or daily living experiences.

In the AMMSE, only the post-test treatment and post-test control scores were significantly different ( $p = 0.005$ ). Improvement in overall scores indicated a possibility that more frequent or longer treatments of Reiki might have a greater impact.

Reiki had greater impact on the RMBPC scores. The posttest treatment and control scores and 8 of the 24 questions in both the frequency and reaction domains were significantly different for the RMBPC. Several of these questions significantly impact quality of life, including waking at night, remembering recent events, losing or misplacing things, and depression issues. Improvements in these areas strongly recommend the use of Reiki for MCI or mild AD clients.

## CONCLUSIONS

Pre- and post-test scores in the AMMSE and RMBPC in MCI or mild AD clients were significantly improved after four 30-minute treatments once per week of Reiki at the  $p < 0.05$  alpha level. Difference in the post-test treatment and control scores in the AMMSE and RMBPC and in 8 of the 24 questions in the RMBPC were statistically significant.

Reiki is noninvasive, has no known side effects, has no negative impacts on existing treatments or therapy, and is inexpensive. Primary caregivers can become attuned and provide Reiki to their clients frequently at no cost. Reduction in nursing care, nursing facilities, and improved quality of life may result.

## REFERENCES

1. Hy LX, Keller DM. Prevalence of AD among whites: a summary by levels of severity. *Neurology* 2000;55:198–204.
2. Oschman JL. *Energy Medicine: The Scientific Basis*. Edinburgh: Churchill Livingstone, 2004.
3. Cozby PC. *Methods in Behavioral Research*. 6th ed. Mountain View, CA: Mayfield Publishing Co., 1997:112–113.
4. Teri L, Truax P, Logsdon R, Uomoto J, et al. Assessment of behavioral problems in dementia: the revised memory and behavior problems checklist. *Psychology Aging* 1992;7:622–633.

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