



The Effect of Reiki energy therapy on the severity of pain and quality of life in patients with rheumatoid arthritis: A Randomized clinical Trial Study

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Background: Patients with rheumatoid arthritis (RA) experience moderate to severe pain and a low quality of life. Reiki energy healing is a modality to control pain and improve the QOL patients. This study aimed to investigate the effect of Reiki energy healing on pain and QOL the patients with RA. **Methods:** This clinical trial study was conducted in 40 RA patients who were randomly divided into control and Reiki groups. The data were collected using the demographic information questionnaire, quality of life questionnaire (SF-36), and the Visual Analogue Scale (VAS) for pain. The questionnaires were collected after two day of distribution in pretest phase. Remote or distance energy healing was performed four times a week (20 minutes each time) for Reiki group then the questionnaires were completed within two days after intervention. The independent t-test or Mann-Whitney U test was applied to compare the mean or median of normal and non-normal distributed data, respectively. **Results:** The mean or median score of the pain ($P<0.001$) and the QOL ($P=0.009$) were significantly higher in the Reiki healing group in compared with the control group in the dimensions of physical functioning, energy/fatigue, emotional well-being, role limitation due to physical health. **Conclusion:** Remote or distance reiki therapy as a complementary and alternative, and noninvasive healing modality relieves pain and improves the QOL in the RA patients.

INTRODUCTION

Approximately 70% of patients with rheumatoid arthritis (RA) experience moderate to severe pain as the most common symptom of this disorder (1). Several studies have identified pain as the main problem for patients with RA (2-4). The pain, which can often be continuous, intermittent, and localized or diffuse (3, 5), is caused by inflammatory joint processes or may be the result of neural damages as the main origin of the so-called persistent, burning or needle-like pain (6). The unpredictable nature of pain in these patients has a significant impact on their quality of life (7).

Patients with RA have reduced quality of life in many ways, including physical health, autonomy and personal and environmental beliefs. Similarly, patients' quality of life is influenced by their age, occupation, economic status, lifestyle (8) and the stage of disease (9).

The ultimate goal of treatment in patients with RA is to control pain and improve their quality of life (10, 11). Common treatments for RA

include non-steroidal anti-inflammatory drugs, corticosteroids, Disease-Modifying anti-rheumatoid Drugs and biological medicines. These drugs have adverse side effects such as nephrotoxicity and hepatotoxicity, gastrointestinal ulceration and bleeding, anemia, and ocular and systemic infections all of which limit their application. On the other hand, the existing medicines have limited efficacy and should be used with caution in view of their toxic and other reported side effects (40). Furthermore, these biological drugs are expensive and not readily available and patients cannot fully benefit from them (12). Despite taking these drugs, patients might not completely be treated and symptoms of the disease persist (13) such that a significant proportion of them complain of persistent and uncontrolled pain and report poor quality of life (6, 7, 14).

Due to the persistence of the symptoms of the disease, in the face of common treatments for RA, many patients have turned to complementary and alternative medicine and use one or more type of them (15, 16, 41, 42). The complementary and alternative therapies are divided into five subgroups, one of which is "energy therapy" (17). Several studies have shown that energy therapy reduces pain, fatigue, anxiety, and stress, and improves the quality of life and overall health of the patients (18, 19, 20, 22). However, no study, if any, could be found

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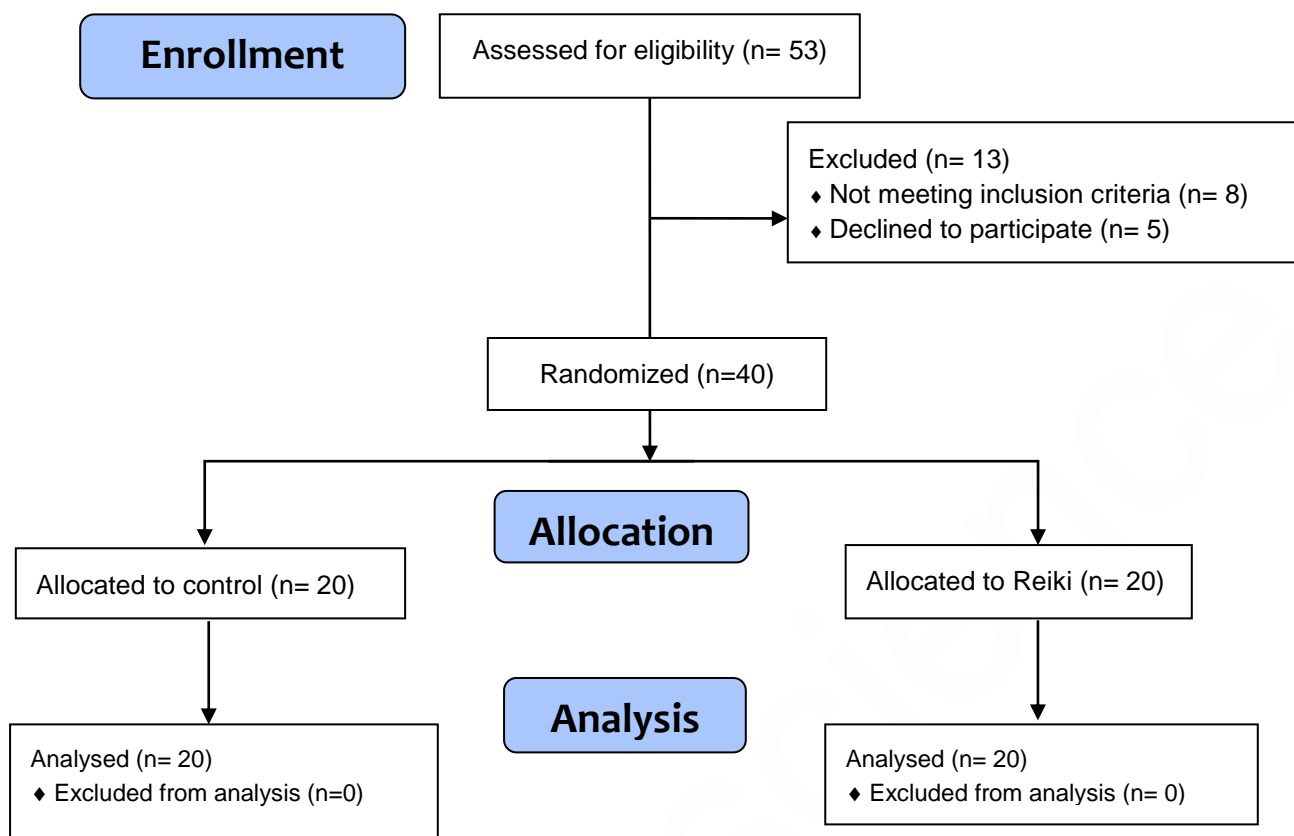


Figure 1 Sampling Flow Diagram

on the effect of Reiki energy therapy on the pain and quality of life of patients with RA. Therefore, this study aimed to determine the effect of Reiki energy therapy on pain and quality of life of patients suffering from RA.

METHOD

The current study was a clinical trial, which aimed to determine the effect of Reiki energy therapy on patients with RA. The samples of this research were 40 patients who met the inclusion criteria for the study. These criteria included suffering from RA for at least 6 months, willingness to participate in the study, being over 18 years of age, and the ability to establish verbal communication.

After providing a list of eligible patients and obtaining written consent, the researcher divided the participants randomly into control and experimental groups. The data were collected using the demographic information questionnaire, quality of life questionnaire (SF-36), and the Visual Analogue Scale (VAS) for pain. The demographic information included age, gender economic status, occupation, education, underlying disease, duration of disease and medication use. Quality of life questionnaire (SF-36) contains 36 questions on physical functioning, Role limitations due to physical health, Role limitations due to emotional problems, energy/fatigue, emotional well-being, social functioning, pain and General health. SF-36 scores range from zero (the worst outcomes) to 100 (best results), with higher scores indicating better quality of life. Quality of life and its dimensions are classified into three categories: good (75 to 100%), fairly good (50 to 75%), poor (less than 50%) (23-25). Validity and reliability of Persian SF-36 questionnaire have been approved (26 and 27).

The VAS for pain is made up of a 100 mm horizontal straight line, with one end indicating no pain (score 0), and the other showing the most severe pain (score 10). The patients mark the intensity of pain on a continuum of 100 mm that they feel (16). The reliability of this tool has also been confirmed before (28).

After obtaining the ethical approval (IR.ZBMU.REC1397.039) from the Zabol University of Medical Sciences, the researcher selected sample patients with RA who met the inclusion criteria and randomly assigned them to the intervention (energy therapy) and control groups (Fig. 1). The goals and method of completing the questionnaires were explained to the patients. The confidentiality of the answers was guaranteed before delivering the questionnaires to the patients. The questionnaire was received back in coordination with the patients and their family two days later. Remote or distance energy healing was performed four times a week (20 minutes each time). After four times of energy therapy, the questionnaires were completed within two days. In this study, all patients received medication treatments prescribed by their physician.

Data was analyzed using SPSS 23. The normality distribution of numeric data such as age was measured using the Shapiro-Wilk test. In case of normal distribution of the data, the independent t-test and for non-normality distributed data the Mann-Whitney U test were applied to compare the effect of Reiki energy therapy on the groups.

RESULTS

Table 1 shows the demographics of the patients in the experimental and control groups. The distribution of data in the two groups did not have a significant statistical difference ($P > 0.05$).

Table 1 Demographic profile of the participants in Reiki and control groups

Variables		Reiki n (%)	Control n (%)	Z score	P value
Gender	Female	20(100)	20(100)	-	-
Marital Status	Single	5(25)	2(10)	1.55	0.407
	Married	15(75)	18(90)		
Economic Status	Weak	8(40)	10(50)	0.481	0.829
	Moderate	9(45)	8(40)		
	Good	3(15)	2(10)		
Education Level	Illiterate	9(45)	5(25)	4.32	0.399
	Primary	7(35)	11(55)		
	Secondary	3(15)	3(15)		
	≥ Diploma	1(5)	1(5)		
Job	Employee	3(15)	4(20)	1.77	0.764
	Housewife	17(85)	16(80)		
Residence	Town	8(40)	13(65)	2.66	0.333
	Rural	4(20)	3(15)		
	Village	8(40)	4(20)		
Drugs	Glu	1(5)	0(0)	1.46	0.843
	DMARDs	2(10)	1(5)		
	Glu + DMARDs	15(75)	17(85)		
	Glu + DMARDs + NSAIDs	2(10)	2(10)		
Disease Length (year)	≤1	2(10)	2(10)	1.00	0.805
	2-5	8(40)	11(55)		
	>5	10(50)	7(35)		
Age	Mean (SD)			t-score	0.93
	Reiki	Control			
		52.70(12.53)	53.05(12.63)	-0.08	

GLU= Glucocorticoids; NSAIDs= non-steroidal anti-inflammatory drugs; DMARDs= Disease-Modifying anti- rheumatoid Drugs

Fig 2. Mean of the Pain and QOL and its subdimension

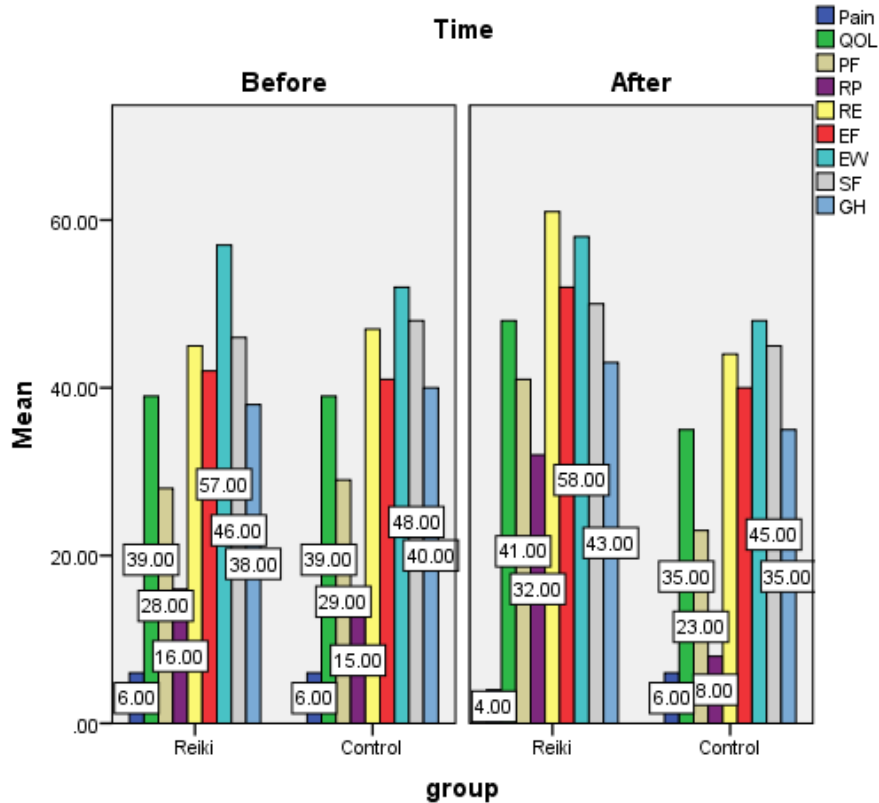


Table 2 Mean (SD) or Median (IQR) of the Pain and quality of life and its dimensions in Reiki and control groups

Variable	Before intervention		P value	After intervention		P value
	Mean (SD) or Median (IQR)			Mean (SD) or Median (IQR)		
	Reiki	Control		Reiki	Control	
Pain	6.62(1.41)	6.04(1.47)	0.211	4.50(1.37)	6.27(1.28)	<0.001
QOL	38.16(16.53)	38.76(13.59)	0.950	49.67(21.90)	34.65(9.73)	0.009
Energy/ fatigue	42.25(15.26)	41.47(14.44)	0.916	52.75(16.18)	40.50(13.37)	0.013
Emotional well-being	57.60(13.45)	52.20(14.00)	0.221	58.88(12.80)	48.40(12.44)	0.012
Social functioning	46.87(21.79)	48.12(21.94)	0.858	50(25)	50(25)	0.904
General health	38.75(17.23)	40.50(16.61)	0.746	43.75(20.44)	35.75(16.95)	0.186
Physical functioning	22.5(30)	22.50(33.75)	0.913	41.25(24.86)	23.50(17.40)	0.013
Role limitations due to physical health	0(25)	0(25)	0.975	20(60)	0(17.5)	0.008
Role limitations due to emotional problems	3.33(100)	33.33(45.83)	0.615	61.66(88.70)	44.16(21.75)	0.407

As Table 2 shows, the independent t-test revealed no statistically significant differences between mean scores of pain based on VAS, quality of life, and the dimensions of energy and fatigue, emotional well-being, social functioning, pain, and general health before intervention in the experimental and control groups ($p>0.05$). Also, the Mann-Whitney test did not reveal any significant statistical difference between the median scores of physical functioning, role limitations due of emotional problems, and role limitations due of physical health ($p>0.05$). In a similar way, Table 2 indicates that the quality of life scores were different in intervention and control groups after intervention such that the mean scores in the intervention group were higher than the control group ($P=0.009$). In addition, the pain intensity, physical functioning, energy/fatigue, emotional well-being, and physical pain were statistically different after the intervention, so that the scores in the intervention group were more than the control group. However, there was no statistically significant difference in the mean scores of role disorder due to emotional and general health. The Mann-Whitney test showed a significant statistical difference in median score for role limitation due to physical health in the intervention and control groups after treatment ($P=0.008$), but there was no statistically significant difference in the median scores of social functioning between the two groups.

DISCUSSION

The evaluated the effects of Reiki energy therapy on the severity of pain and quality of life in patients with RA. The results of this study revealed that Reiki energy therapy is an effective method on relieving pain in RA patients. This finding is in line with similar studies that investigated the effect of Reiki energy therapy on the severity of lower back pain in patients with herniated lumbar intervertebral disc (29), chest pain due to open heart surgery (30), knee replacement (31), total knee arthroplasty (32), the impact of remote Reiki on the pain of oncology patients (17), and relief of acute (33) and chronic pain (34, 35).

Some studies, however, have reported inconsistent results with the findings of the present study. The results by Anjana et al., on the children's oral pain after surgery (36), Vandervaart et al., on post-cesarean pain (37), and Assefi et al. on relieving pain and the other symptoms of fibromyalgia (38) have not found effectiveness of reiki. The reasons for such incongruence with the present study might include lower tolerance of children for pain, physical and emotional problem associated with cesarean.

The results also showed that the Reiki energy therapy could generally improve the quality of life (QOL) in RA patients. The dimensions as the physical functioning, role limitations because of

physical health problems, energy/fatigue, emotional well-being, and physical pain have improved significantly in the intervention group in compare to the control ones.

Similarly, the QOL studies of Alarcão and Fonseca on the patients with blood cancer (38), and Lee et al. on gastro-intestinal patients (39) are in line with the findings of the present study, which demonstrates the positive effects of Reiki energy therapy on life quality.

However, three dimensions of the QOL as role limitation due to emotional problems, social functioning, and general health were not affected. The lack of effect of Reiki therapy on the three dimensions of QOL could be associated with factors such as the economic situation, the family and other support systems, the environment facilities, and understanding and using the personal feelings to make the right decisions in life to improve the QOL.

In spite of some strength, this study had some limitations that might affect the results i.e. the impossibility of blinding the participant samples due to the nature of the treatment, lack of patient awareness about energy therapy and remote energy healing. Moreover, the length of the QOL SF-36 questionnaire can be seen as another limitation given that most of the participants were old.

CONCLUSION

This study shows that remote or distance reiki therapy as a complementary and alternative, and noninvasive healing modality effects on relieving pain and improving the QOL of the patients with RA. Besides, it is recommended to investigate the antibody tests e.g., rheumatoid factor and cyclic citrullinated peptide antibodies to find out the Reiki efficacy in RA patients in future studies.

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Conflict of interest

There is no conflict of interest amongst the authors.

Article History

Received: 21 December 2018

Accepted: 6 February 2019

Published: March-April 2019


Citation

Naser Shirani, Abdolghani Abdollahimohammad, Mohammadreza Firouzkouhi, Nosratollah Masinaeinezhad, Aziz Shahraki-Vahed. The Effect of Reiki energy therapy on the severity of pain and quality of life in patients with rheumatoid arthritis: A Randomized clinical Trial Study. *Medical Science*, 2019, 23(96), 205-210

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