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The effect of reiki on pain: A meta-analysis

Melike Demir Doğan

Gümüşhane University, Faculty of Health Sciences, Gümüşhane, Bağlarbaşı Mahallesi 29100, Turkey

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ABSTRACT

Objective: Pain is one of the most common symptoms and may lead to important psychological, mental, and physiological problems in individuals. According to data by The Center for Reiki Research, Reiki is an effective approach to decrease the levels of pain, depression, and anxiety. Therefore, the aim of this meta-analysis was to investigate the effect of Reiki on pain level.

Methods: Randomized controlled clinical trials in databases of Pubmed, ISI Web of Sciences, and Google Scholar were investigated. 4 randomized controlled studies involving 212 participants were included in the meta-analysis.

Results: The result obtained after the final Reiki application was evaluated in VAS pain score. When Reiki (n = 104) group was compared with control group (n = 108), standardized mean difference was observed to be −0.927 (95% CI: −1.867 to 0.0124). Reiki was observed to cause a statistically significant decrease in VAS score.

Conclusion: Consequently, this meta-analysis revealed that Reiki was an effective approach in relieving the pain.

1. Introduction

Today, in addition to medical treatment, patients benefit from alternative and complementary treatments in numerous fields of medicine. Alternative and complementary treatments have many subgroups. Energy approaches, one of these groups, involve reiki, qigong, and therapeutic touch.

Reiki, one of the energy approaches, was discovered by Dr. Usui in texts of Sanskrit, in late 19th century and then it was put in practical application by Hawayo Takata [1–3]. In Reiki, everything in the universe consists of energy including the human body and deviations of this energy may lead to diseases. Reiki points out a structure filled with spiritual wisdom waiting to be woken up in human as well as universal energy [4,5]. In Reiki application, practitioner tries to balance the energy flow in individual by sending the energy received from the universe [6–8].

Reiki application consists of three stages as the first level, the second level, and mastery level. Practitioners balance their own energies at the first level. Practitioners can send reiki energy to other people at the second level. At the third level, which is mastery stage, the person can train new practitioners [1]. In Reiki, duration of the therapy is about approximately 30–90 min. During the application, the person lies down or stays in extended position and there is no need to take the clothes off [1,2,4].

Reiki is generally safe and its serious adverse effect has not been reported [8]. According to the data of The National Center of Complementary and Alternative Medicine, there is a gradually increasing interest on energy approaches among consumers and healthcare providers [9]. Especially in the last decade, Reiki practice has increased among doctors, nurses, and other healthcare professionals [3]. It is commonly used in rehabilitation units, hospices, emergency care units, psychiatry clinics, surgery rooms, aged care facilities, pediatric clinics, clinics of gynecology and obstetrics, and neonatal care clinics. Reiki can be applied by licensed or unlicensed reiki practitioners such as nurse, caregivers, family members, and patients who received first level Reiki training in hospitals and clinics [3,10].

Although there is not yet a theory that explains how Reiki works in pain and the whole body, the quantum physics promises hope for the explanation of this mechanism in the future [11]. Even though there are studies determining the effect of Reiki on pain, there are yet no meta-analyses showing that Reiki is a definitive and effective practice on pain.

According to the data of The Center for Reiki Research, Reiki is an effective approach for reducing the level of pain, depression, and anxiety [12]. Therefore, the aim of this meta-analysis is to investigate the effect of reiki on pain level.

E-mail address: melekdm@gmail.com.

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2. Methods

Randomized controlled clinical trials were researched on databases of Pubmed, ISI Web of Sciences, and Google Scholar by using the keywords of 'reiki and pain'. A total of 44 studies were found as a result of this review. 13 of these studies were randomized controlled, 9 were eliminated because they did not have appropriate assessment instrument or method. VAS was not used in pain assessment in the four of these nine studies. In the remaining studies, the three-group system was used in assessing the effect of Reiki on pain. Besides the Reiki and control groups, another intervention such as sham Reiki or relaxation such as yoga was used as a third group.

Four studies in total were included in the meta-analysis. Fig. 1 shows flow chart of the meta-analysis. Only the studies comparing experimental and control groups were included in the meta-analysis. The number of studies performed in these areas is so small, so no restriction has been made regarding the number and duration of reiki sessions. The result obtained following the final Reiki sessions was considered for pain score in Visual Analog Scale (VAS).

In order to identify whether or not the effect size was significantly different from the studies in the meta-analysis, a heterogeneity test was used. Cochran's Q test statistics and I^2 test statistics were used to test the existence of heterogeneity. Random-effects meta-analysis model was used based on heterogeneity of the test results. Hedge's g test statistics were used in order to show the common effect between Reiki and placebo groups in the meta-analysis.

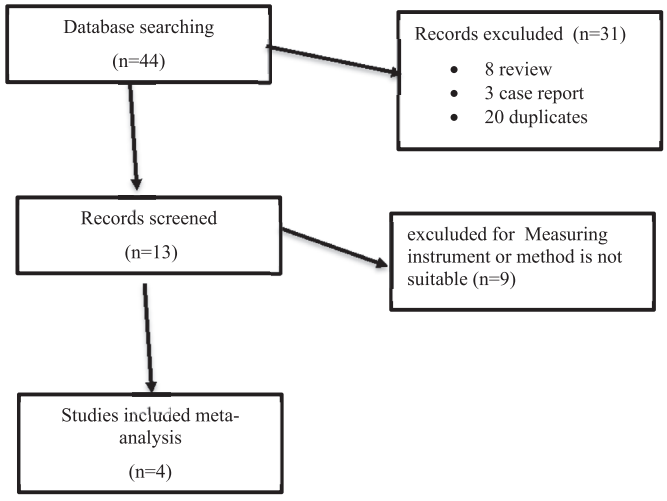

Fig. 1. Folow chart of meta-analysis.

3. Results

Table 1 shows basic characteristics of 4 studies chosen for the meta-analysis. As the numbers of sample in the studies were added, 104 patients from Reiki group and 108 patients from control group were included in the meta-analysis. Researchers were responsible for collecting the data in two of four studies, which were double-blind randomized controlled study.

While 3 studies used VAS scale, one study used 10-point face pain scale. While patients in the control group in two of studies included were not subjected to an additional practice in addition to general medical treatment, patients of the remaining two had resting period as the intervention in addition to general medical treatment.

When Reiki and control groups were compared in terms of heterogeneity, they were observed to be distributed heterogeneously ($p < 0.0001$; $I2 = 89.05\%$; 95% CI: 74.66%–95.27%).

Table 2 shows comparison of reiki and control groups as a result of the meta-analysis conducted based on the change in VAS pain score. Random-effects model was used for the meta-analysis. As standardized mean difference of Reiki versus control group was calculated, this value was found to be −0.927 (95% CI: −1.867 to 0.0124). Reiki was observed to cause a statistically significant decrease in VAS score (Fig. 2).

4. Discussion

According to the description by the International Association for the Study of Pain (IASP); pain is an unpleasant, emotional and sensorial experience which progresses with a possible tissue injury originating from any part of the body and involves all past experiences of the individual [13]. People across the world regularly experience acute or chronic pains associated with injury, disease, therapeutic treatment or surgery [14].

The pain is one of the most common symptoms [15], individuals may develop important psychological, mental, and physiological problems [16]. When pain is not taken under control; it leads to consequences such as negatively influenced response to the treatment, decreased quality of life, reduced productivity, and increased health expenses [17,18].

There are studies indicating that some of the complementary

Table 1
Study characteristics of meta-analysis.

Study	Study Design	Sample size		Applied method		Comparisons	Outcome
		Reiki	Control	Reiki	Control		
Demir 2015 [24]	RCT	8	10	5 distant Reiki Sessions, for 30 min	usual medical care	Reiki vs control	10-point VAS scale
Midilli 2015 [25]	RCT	45	45	First 24 and 48 h postsurgery for 30 min 10 identified regions of the body for 3 min each once a day for 2 days (in the first 24 and 48 h) within 4–8 h of the Reiki application of postoperative analgesic in the patient's room.	a rest without treatment for 30 min.	Reiki vs control	10-point VAS scale
Olson 2003 [23]	RCT	11	13	standard opioid management plus Reiki patients received two Reiki treatments (Days 1 and 4) 1 h after their first afternoon analgesic dose.	standard opioid management plus rest patients rested for 1.5 h on Days 1 and 4	Reiki vs control	10-point VAS scale
vanderVaart 2011 [26]	RCT	40	40	Three distant reiki sessions in addition to usual care	usual medical care	Reiki vs control	10-point VAS scale

Table 2
Comparison of reiki versus control groups in reduction of pain.

Study	Reiki (n)	Control (n)	Total (n)	SMD	SE	95% CI	Weight (%)
Demir 2015	8	10	18	−1008	0,482	−2030 to 0,0133	22,29
Midilli 2015	45	45	90	−1869	0,251	−2369 to −1370	26,72
Olson 2003	11	13	24	−0,711	0409	−1558 to 0,137	23,81
vanderVaart 2011	40	40	80	−0,124	0222	−0,565 to 0,318	27,17
Total (random effect)	104	108	212	−0,927	0477	−1867 to 0,0124	100,00

Test for heterogeneity: Q = 27.4; df = 3; p < 0,0001; I^2 = 89,05% (95% CI for I2: 74,66–95,27).

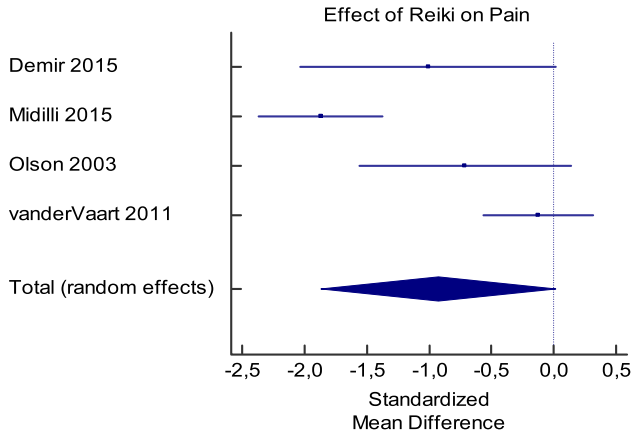

Fig. 2. Forrest plot showing changes reiki between pain.

and alternative treatments are effective on pain management. While acupuncture creates analgesic effect [19,20], massage application may help relieving the pain [21]. Likewise, behavioral therapies were shown to decrease pain perception level [22].

Likewise, there are studies showing that Reiki might be an effective method in pain management. In the study by Olson et al. (2003), the Reiki and control groups were similar in terms of diagnoses, source of pain, nature of pain, previous opioid exposure, cognitive function, psychological distress, opioid tolerance and drug or alcohol dependence. In this study, bone metastasis, neuropathic pain, lymphadenopathy, ascites, and visceral pain were determined as a source of pain. The nature of the pain was assessed as non-incidental and incidental. In this study conducted with 24 adult patients (Reiki n = 11, control n = 13) having at least 3 points of pain in 10-point VAS scale and receiving 2–5 daily doses of analgesic, they applied reiki to the patients following afternoon dose of analgesic on days 1 and 4. This study revealed that there was a statistically significant decrease in pain of Reiki group compared to control group [23].

Demir et al. (2015) evaluated pains of patients in experimental group via 10-point VAS scale before Reiki application and following 5 distant Reiki application in their study on 18 patients (Reiki n = 8; control n = 10) who were hospitalized in oncology service and stated to have pain. In reiki group, the patients' mean age was 38.62 ± 19.50, median length of time since being given the diagnosis of cancer was 19.5 months and the median treatment cycle was 3.85. In control group, the patients' mean age was 28.70 ± 8.88, median length of time since being given the diagnosis of cancer was 21.6 months and the median treatment cycle was 3.60. In the study, no information was given about the location of the pain, and patients who expressed pain were included in the study. In their study, patients were applied distant Reiki for 30 min every day for 5 days. As a result of study, pains of patients were observed to have a statistically significant decrease compared to control group [24].

Midilli et al. (2015) conducted a study with 90 patients (Reiki n = 45; control n = 45) hospitalized in gynecology service and applied reiki to experimental group for 10 min at the first 24th and 48th hours after the birth. While the age of the participants ranged from 18 to 45 years, 35 women included in the study delivered their first birth. It was reported that there was no difference between reiki and control groups in terms of demographic and clinic characteristics. In the study, the pain of the patients after cesarean section was evaluated. As were in other studies, pain levels were lower than control group when evaluated via 10-point VAS scale [25].

In the study conducted by vanderVaart et al. (2011) with 80 patients (Reiki n = 40; control n = 40) who underwent c-section surgery, they applied 3 distant reiki applications to reiki group. In the study evaluating the pain of the patients after cesarean section, it was reported that there was no difference between reiki and control groups in terms of demographic and clinic characteristics. While reiki was first applied at least 30 min before the surgery, second and third applications were applied at 08.00 in the morning in following days. When pain levels were evaluated in this study, it was observed that there was no significant difference with pain levels compared to control group [26].

We included only randomized controlled studies in the meta-analysis in order to minimize bias risk. Sample sizes of the studies included were also small. Because there is limited number of studies on Reiki, general effect of reiki on pain was evaluated instead of the efficiency of reiki on special patient groups. As the number of studies on reiki and pain increases, it will be possible to evaluate the effect of reiki on special groups.

Consequently; Reiki was observed to be an effective complementary application in decreasing the pain level. It is recommended to evaluate the efficiency of reiki on pain in special patient groups in future meta-analysis studies.

5. Limitation

Since there are only a limited number of randomized controlled trials to determine the effect of reiki on pain, studies on all pain types rather than studies on a specific type of pain were evaluated in this study. Therefore, in the present study revealing that Reiki was effective in reducing pain, it could not be determined to be effective specifically at which type of pain. For this reason, it is planned and recommended to repeat the study when the number of studies with specific patient groups and types of pain increase.

Acknowledgments and conflict of interest

There is no acknowledgments and conflict of interest.

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