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The effect of Reiki on depression in elderly people living in nursing home

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The aim of this study was to evaluate the effect of Reiki on depression in elderly persons living in nursing homes. The study was conducted randomized, controlled and experimental. The study universe consisted of 170 elderly and due to the long duration of the study and 90 elderly who volunteered for the study and fulfilled the inclusion criteria formed the sample. Ninety elderly individuals who were included in the study were separated into 3 groups using the random sampling method: 30 in the reiki group, 30 in the sham reiki group, and 30 in the control group. Data was collected using the Geriatric Depression Scale (GDS). There was a significant decrease in depression score of the Reiki group while there was no significant difference in depression scores of the sham Reiki and control group on the 4th, 8th and 12th weeks considering 1st week. In addition, the depression score of the Reiki group was lower than the depression scores of the sham Reiki and control group on the 4th, 8th and 12th weeks. The results of this study indicate that Reiki might be effective for reducing depression in elderly persons living in nursing homes.

Keywords: Reiki, Elderly, Depression, Complementary and alternative medicine, Nursing homes, Turkey

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Aging, which involves the ages of 65 and older, is one of the most important periods in human life and in that period changes in the mental, bodily and psychological structure of the individual, losses and physical regression can be observed[1,2,3]. Depression, which significantly increases morbidity and mortality in the elderly and increases in prevalence in mid-sixties, is an important health issue that should be addressed[2,3,4]. In studies that investigate depression and depressive symptoms, depression has been determined in varying rates such as %13 and %62.5 in individuals older than 65yrs[1-6]. Elderly form a risk group in means of mental health and their residence in nursing homes bring along intense problems. Therefore, in the elderly who reside at nursing homes, quality of life is affected, and also various psychological problems emerge[4,5,7,8].

Chronic diseases that increase during aging and unwanted conditions that are caused by multiple medication use led the elderly to use complementary and alternative medicine (CAM) methods[9,10]. Studies on the elderly and CAM reported that the elderly use CAM on varying rates such as 30%[11], 41%[9], 62.9%[12] and 88%[10]. Among the elderly, the rate of using energy therapies, which is a method of CAM, and Reiki is 0.5%. In previous studies, it has been reported that the elderly use CAM due to arthritis, chronic pain, stress, anxiety, depression, sleeping disorders, flu, influenza and gastrointestinal system diseases[12] as well as the inability to benefit from traditional medication, side effects of drugs, to improve their general state of health and to increase quality of life[9].

In the United States of America, according to the National Center for Complementary and Alternative Medicine (NCCAM), which is affiliated with the National Institute of Health (NIH), Reiki, which is classified among bioenergy therapies, is one of the healing methods that is based on life energy and existed through the history of humanity[14]. Reiki is used as complementary therapy in case an obstruction or blockage develops in an energy core and illness or imbalance occurs[15,16,17]. Reiki practitioners believe that the therapeutic effect of reiki is acquired through biotic energy and this energy forms balance and harmony between the body, the spirit and the mind, and it also enhances the body's natural healing strength[18]. In this natural healing method, energy is

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transferred through touching with hands. The transferred amount of energy is determined according to the reiki recipient's needs[15]. When hands touch the body in the necessary positions, Reiki starts to flow by itself. Reiki strengthens energy paths and meridians and facilitates the natural healing process. It reorganizes bodily energy systems that become blockaded with stress or negative states. Thus, the harmony between the body, the mind and the spirit is re-established[15,19]. During Reiki, the parasympathetic system's activity is increased, immunoglobin level is raised, and release of stress hormones such as cortisol decrease, leading to a complete relaxation. In this way, blood pressure and heart beat rate decreases[15,20,21]. Thus, Reiki resolves inner blockades and purifies the body from toxins. In view of randomized controlled studies on Reiki's therapeutic effects, Reiki has effects including relief from pain (especially post-operative and cancer)[22,23,24,25,27] decreasing anxiety/depression[22,24,25,26,27], improving quality of life[23,] decreasing fatigue[25], adjusting for blood pressure and pulse, providing relaxation and comfort[20,21], and it also complements standard nursing care.

In a systematic study on Reiki's therapeutic effect, nine out of 12 randomized controlled studies showed that Reiki has therapeutic effects but the need for more randomized controlled and methodically qualified studies has been reported[28]. Therefore, we have applied this study in a randomized, placebo controlled. There are no Turkish studies on the effects of Reiki in the elderly. Based on the lack of such studies, this randomized, controlled and experimental study has been conducted in order to evaluate the effects of reiki on depression in elderly persons living in nursing homes.

Materials and methods

The study was carried out in two nursing homes located in Istanbul during March – November of the year 2011.

The study universe consisted of 170 elderly and due to the long duration of the study and 90 elderly who volunteered for the study and fulfilled the inclusion criteria formed the sample.

Inclusion criteria for the study were to be of 65 yrs of age or older, no communication problems, be willing to participate in an eight-week Reiki program, have score 14 and higher points on the Geriatric Depression Scale and to not be on antidepressant medication. Elderly who were diagnosed with bipolar disorder, schizophrenia, and other mental disorders or who have received mind-body therapy (*yoga*, Reiki, *massage*, and meditation) in the last six months were excluded.

Elderly who were included in the study were separated into three groups using the random sampling method: 30 in the reiki group, 30 in the sham Reiki group, and 30 in the control group.

Hypotheses of study

H0: Reiki does not cause decrease in depression levels of the elderly who reside at nursing homes.

H1: The depression levels of the elderly who receive Reiki decrease more than the elderly who receive sham Reiki (placebo) and the elderly who do not receive Reiki (control group).

Data collection instruments

Data were collected using the Geriatric Depression Scale (GDS).

Geriatric depression scale (GDS): This scale was developed by Yesavage, Brink, Rose, Lum, Huang, Adey and Leirer (1982) in an attempt to investigate the presence of depression in the geriatric population[29] and the Turkish validity and reliability study of the scale was carried out by Ertan, Eker and Şar[30,31]. The GDS was designed in order to create a valid screening test that is easy to score and apply. The items are formed to maximize the differentiation of the depressed elderly persons from depressed persons who are not elderly.

The items include reduced affectivity, fading of sense of self, motivational weakness, tendency towards the past instead of the future, cognitive problems, obsessive features, and agitation. The GDS consists of 30 items and is filled out by the patient. The patient marks all items as either 'Yes' or 'No'. Out of 30 items, 20 are designed as positive and 10 were designed as negative. The cut-off score of the scale is accepted as 13/14. In this study, the Cronbach's alpha value was found to be 0.79.

Method and duration of data collection

After permission to conduct the study was granted, the nursing home director, psychologist, and nurses were interviewed and were briefed about the purpose and extent of the study. Data was collected by the researcher through face-to-face interviews with elderly persons. Before commencing the study, the purpose of the study was explained and both oral and written consent of the participants who accepted to

participate in the study were taken. The study began in March 2011 and data collection was completed in November 2011.

First, GDS was applied to the elderly. A randomized selection was made from the participants who scored 14 and higher on the GDS.

Later, raffle numbers ranging from 1- 90 were put in a bag and the group was asked to draw. Individuals who drew from 1- 30 formed the Reiki, 31- 60 formed the sham Reiki, and 61- 90 formed the control group. In this way, 3 groups were formed out of the sample group as follows: 30 Reiki, 30 sham Reiki, and 30 controls. The elderly persons were put on the group of his/her drawing but were not informed which group he/she was in (single blind).

Reiki was applied to the experimental group for 8 weeks, once a week for 45 minutes to an hour, and by a researcher who is a Reiki master. In order to evaluate the long term effect of Reiki, on the 12th week assessment took place without the application of Reiki. The process was carried out in a room decorated nicely and in a position which the elderly person would feel comfortable. There were e bed, wardrobe and two chairs in the room. Reiki practitioner did not talk with persons during Reiki apply but used music. To every single elderly person, the weekly process was carried out on the same day and time. During the process, the hands of the practitioner were placed on the 7 main *chakras* namely crown, third eye, throat, heart, solar plexus, sacral and with the root *chakra*, 4 main head positions and the thymus region (the channels form which energy enters the body), 4 head positions, and the thymus region[15,19]. Each position lasted for 5 minutes.

Sham reiki was applied to the sham Reiki group by four nurses who did not have Reiki training but thought that they were practicing Reiki. Hands stayed on the 7 main *chakras* in the same positions for 5 minutes as if they were practicing Reiki during the sham Reiki practice. Sham Reiki was applied in the same room decorated nicely and on the same schedule.

As for the control group, no intervention took place and the GDS was applied just like the other groups and on the same schedule. They were allowed to attend the general activity programs in the agency. The GDS was applied to both Reiki and sham Reiki groups on the 1st, 4th, and the 8th weeks before Reiki/sham Reiki sessions and on the 12th week without a Reiki/sham Reiki session.

Because sham Reiki practitioners thought they were practicing actual Reiki, this experiment is single-blinded and placebo controlled.

The Reiki practitioner who is researcher is a Reiki master who has practiced Reiki for approximately 4 yrs.

Reiki application procedure

1. The elderly person was given directions.
2. The application took place in a quiet room.
3. It was provided that the elderly person lied on the bed.
4. The practitioner washed his/her hands and brought them forth to body temperature.
5. Connected to Reiki channel.
6. Hands were put on the seven main *chakras* (crown, third eye, throat, heart, solar plexus, sacral and with the root *chakra*, 4 main head positions and the thymus region) and stayed on each position for 5 minutes.
7. Disconnected to Reiki channel.
8. The procedure was finalized.

The ethical aspect of the study

In the execution of the study, scientific principles were abided to as well as universal ethical principles. Accordingly, informed consent, autonomy, privacy and preservation of privacy, justice, and conservation/effectuality principles were regarded. As the use of human phenomenon in studies requires the preservation of individual rights, the Declaration of Helsinki was stood by throughout the study. Prior to the study, ethics board permission was obtained. Before the application of data collection tools, potential participants were briefed about the purpose, plan and the benefits of the study. The Patient Debriefing and Consent Form had been signed by the ones who accepted to participate in the study.

Data analysis

Statistical Package for the Social Sciences (SPSS 13) program was used for the statistical evaluation of data. For parametric data, the t test; for non-parametric data, the chi-square test; and to determine whether there is a difference between groups, the Mann Whitney U test was used. For inter-group comparison, the Wilcoxon sign test and for the internal consistency analysis of the scales, the Cronbach alpha was calculated. In statistical evaluation, $p<0.05$ was accepted as significant.

Results

Socio-demographic characteristics of elderly individual

The distribution of the socio-demographic characteristics of elderly persons was given in Table 1. The average age of the elderly is 78.29±7.8 yrs, among them 63.3% were female and 36.7% were male. Nearly half of them has a degree of higher education (46.7%) and has a high level of income (58.9%).

Findings regarding the effects of Reiki on depression

The depression scores of elderly persons in the Reiki, sham Reiki, and control groups were compared considering weeks in Table 2. In the Reiki group, there was statistically significant difference on depression score averages between the 1st and the 4th, the 1st and the 8th, the 1st and the 12th weeks (respectively; $p<0.001$, $p<0.001$ve $p<0.001$), (Table 2). A significant decrease in depression levels of the Reiki group occurred on the 4th, 8th and 12th weeks considering 1st week. Consequently, positive effect of Reiki, which was applied for 8 weeks, was observed on the 12th week.

In the sham Reiki group, a statistically significant difference in depression score average did not observed between the 1st and the 4th, the 1st and the 8th and the 1st and the 12th weeks ($p>0.05$), (Table 2).

Likewise, in the control group, a statistically significant difference in depression score average did not found between the 1st and 4th, the 1st and the 8th and the 1st and the 12th weeks ($p>0.05$), (Table 2).

There were statistically significant differences in depression scores between reiki and sham Reiki groups on the 1st, 4th, 8th and the 12th weeks (respectively; $p<0.01$, $p<0.001$, $p<0.001$ and $p<0.001$) (Table 3). Accordingly, a relatively significant decrease in the depression level of the Reiki group occurred than of the sham Reiki group. In addition, there were statistically significant differences in depression scores between Reiki and control groups on the 1st, 4th, 8th and the 12th weeks (respectively; $p<0.01$, $p<0.001$, $p<0.001$ and $p<0.001$) (Table 3). Accordingly, a relatively significant decrease in the depression level of the Reiki group occurred than of the control group. Otherwise, there was no significant difference in depression scores between sham Reiki and control groups on the 1st, 4th, 8th and the 12th weeks ($p>0.05$) (Table 3).

Table 1—Distribution of socio-demographic characteristics (n=90)

Socio-demographic characteristics		n	%
Gender	Female	57	63.3
	Male	33	36.7
Educational Background	Primary	8	8.9
	Secondary	40	44.4
	Higher	42	46.7
Income	Middle	37	41.1
	High	53	58.9
Age (M + SD years)	78.29 ± 7.8	(range: 65 – 91)	

Table 2—Comparison of depression scores with regard to weeks (n=90)

Groups	Reiki			Sham Reiki			Control		
	1-4w	1-8w	1-12w	1-4w	1-8w	1-12w	1-4w	1-8w	1-12w
Significance									
Z	-4.59a	-4.78a	-4.788a	-.278a	-.893b	-.458b	-.360a	-.492b	-.590b
p	0.000***	0.000***	0.000***	0.781	0.372	0.647	0.719	0.623	0.555

Z: Wilcoxon Test was used. ***p<0.001

Table 3—Comparison of depression scores with regard to weeks (n=90)

Groups	1st week GDS U and p	4th week GDS U and p	8th week GDS U and p	12th week GDS U and p
Reiki/Sham Reiki	218.50	127.00	20.50	7.00
	0.001**	0.000***	0.000***	0.000***
Sham Reiki/Control	379.00	393.50	394.50	387.00
	0.291	0.400	0.405	0.345
Reiki/Control	232.00	114.50	25.00	00.00
	0.001**	0.000***	0.000***	0.000***

U: Mann Whitney U test was used. **p<0.01, ***p<0.001

Discussion

In previous studies, Reiki was reported to reduce anxiety and depression and increase relaxation and comfort[18,32]. As in the WHO's description of health, Reiki approaches the individual with his/her body, soul and mind altogether[33]. In our study, a relative recovery on the depression level of the Reiki group has been seen than of the sham Reiki and control groups (Table 3). With regard to sham Reiki and control groups, the statistically significant decrease of depression scores by week on the Reiki group is remarkable. During Reiki applications, many of the elderly stated that they 'felt relaxed, happy, safe, and their ability of coping has increased. An elderly person who received dialysis treatment and showed depressive emotional symptoms reported that he/she felt happier when attending dialysis sessions. Furthermore, in an elderly person, who was diagnosed with major depression, who did not get out of his/her bed, use the bathroom in his/her room and urinate on the bed, depressive emotional state decreased after the application of Reiki.

Our study findings show similarities with study findings of Richeson, Spross, Lutz & Peng (2010)[27]. Similarly, Richeson *et al*. (2010) notified that elderly individuals to whom Reiki was applied to stated, parallel to the decrease in depression their scores, that they felt more relaxed during reiki sessions[27]. Dressen & Singg (1998), in their study of pain and psychological symptoms of 120 patients suffering from chronic diseases, found that there was a relative decrease in the depression level of the group that Reiki was applied to than of the sham Reiki, progressive muscular relaxation, and control groups[22]. Also Shore (2004), in his study of the effects of Reiki in cases of depression and stress, among groups which he applied Reiki, distant Reiki and sham Reiki to, stated that the level of depression of the Reiki group decreased relatively to those of control groups[26]. These results are supportive of our study as well.

Bowden, Goddard & Gruzelier (2011) applied Reiki on two groups consisting of students with high and low levels of depression and anxiety. In the study, which both groups were considered control groups; a relative decrease on depression level of the Reiki recipient group was found than of the control groups[34].

Shiflett. Nayak, Bid, Miles & Agnostinelli (2002), in their study on 50 patients with sub-acute ischemic stroke, could not find a significant difference between the Reiki master, Reiki practitioners, sham Reiki and control group in terms of functional healing and depression. This situation might originate from the size of our sample group and the characteristics of the group that we work with[35.]

Depression affects the elderly's physical, social, emotional, and mental well-being, hence his/her whole life. As the fact that living in a nursing home is a triggering factor for depression is taken into account, new techniques and approaches which increases the elderly's life satiation, allows him/her to feel happier, helps him/her to cope with stressful situations, and provide his/her adaptation to the nursing home should be investigated. In our study, the elderly stated that after Reiki treatment they felt happier, clung to life, became more hopeful and they were at peace and felt secure. Moreover, an elderly who used a walking stick walked out of the room without the need to use it after the reiki application and needed to use a walking stick less often. Also, an elderly who was diagnosed with Parkinson disease and who described that they fall often, stated that "before the reiki application he/she fell four or five times a day", expresses his/her emotions at the end of the 7th week as: 'my fallings are now one or two times a week, from now on I feel happy and my crying has decreased, I love life'. With this, we have come to the conclusion that reiki can be an application that reduces fallings in the elderly who have this problem and this finding should be supported with new studies. Also, when depressive conditions without reiki on the 12th week were evaluated, it was found that effect of Reiki remained for a month.

Conclusion

There was a significant decrease in depression score of the Reiki group while there was no significant difference in depression scores of the sham Reiki and control group on the 4th, 8th and 12th weeks considering 1st week. In addition, the depression score of the Reiki group was lower than the depression scores of the sham Reiki and control group on the 4th, 8th and 12th weeks. The results of this study indicate that Reiki might be effective for reducing depression in elderly persons living in nursing homes.

Study limitations: The long duration of the application period is one of the hardships that is encountered during the data collection phase. Besides, as this study is conducted with individuals aged 65 and above who reside at nursing homes, the generalization of results forms the limitation of the

study. As the researcher‘s time is limited in order to determine the long term effect of reiki, evaluation could only be done on the 12th week.

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