

Stress and Anxiety Reduction Effects of a Reiki Program During the COVID-19 Pandemic Among Employees in Lima, Peru

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Evidence has been found of how the coronavirus disease-2019 (COVID-19) pandemic has increased stress and anxiety indicators. Against this background, the present research aims to determine the effect of a distance Reiki intervention program on stress and anxiety during the period of isolation due to COVID-19 among people working in the city of Lima, Peru. The related hypothesis was that distance Reiki would generate a reduction in stress and anxiety levels. It was a quasiexperimental design with pre- and posttests, with nonprobabilistic purposive sampling. In total, 28 employees participated (12 in the experimental group and 16 in the control group). As part of the method, the following instruments were used: the EPGE, IDARE, and Coronavirus Anxiety Scale (CAS). There was a large decrease in the distress parameter (Cohen's $d = 1.006$), as well as in the state anxiety parameter ($d = 1.678$) and a large increase in eustress ($d = 0.921$). Similarly, there was an overall reduction in the trait anxiety parameter ($d = 0.373$) in all cases as compared with the control group. Coronavirus anxiety showed no major impact. These results provide initial evidence on the effects of distance Reiki among Peruvians and provide the basis for promoting this cost-effective therapy, generating a practical and social contribution. **KEY WORDS:** *anxiety, COVID-19, distance Reiki, employees, Reiki, stress* *Holist Nurs Pract* 2022;36(5):E48–E56

INTRODUCTION

The coronavirus disease-2019 (COVID-19) pandemic and the response to it has been an issue of high relevance around the world. This has been not only because of the disease itself, but also because of the effects it has had on the population's mental health.¹ It has been proven that reduced social contact, isolation, and quarantine have increased anxiety and stress

levels.^{2,3} In particular, working people, women, and young adults are groups that are highly susceptible to such increase.⁴

Although Peru is carrying out several in-depth studies to measure the pandemic's impact on mental health,⁵ indicators prior to the pandemic showed that 22% of Peruvians felt stressed on a regular basis.⁶ At the beginning of 2020 this number rose to 28% and in June of the same year, after the arrival of COVID-19, the indicator soared to 58%.⁷ As a result, therapeutic support services are limited. In Peru, only 20% of the population has access to psychological care.⁸

Therefore, different comprehensive programs have been developed to address this.⁹ In addition, people are looking for new therapies as the continuous stress, dissatisfaction with the health care system, and the ineffectiveness of the traditional system compel them to take other options.¹⁰ Complementary therapies are those that comprise practices that are not considered part of traditional medicine, but that seek to promote health and prevent disease from a holistic approach.

Reiki is one of these therapies. It is a bioenergetic therapy, cost-effective, since it can be learned and performed by patients themselves, and noninvasive since the therapy consists of the laying on of hands

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and the transmission of energy without any need to physically alter the person's body, and it can also be performed remotely.¹¹ Furthermore, its benefits include promoting relaxation and reducing tension, while there is proven evidence of its effects on stress and anxiety.^{12,13}

Stress

“Stress” is a term that expresses how a person reacts to certain situations, either positively or negatively. It can have a physical influence (causing cardiovascular disease, insomnia, anxiety, or depression)¹⁴ or psychological influence on the person's life and may be very difficult to cope with.¹⁵ Thus, when stress becomes too strong to bear, it is known as distress. On the other hand, when stress has a beneficial impact on the person, it is known as eustress.^{16,17} Lazarus and Folkman¹⁸ propose that stress is part of a transaction process involving the person's appraisal of the experienced situation, whether internal or external.

Stress is exacerbated in employees due to increased exposure to uncertainty associated with illness, work and isolation, globalization, and remote working over time.^{4,19,20} There is proven evidence that mental health is impaired in a pandemic and natural disaster context.²¹

Anxiety

Anxiety has been defined as an adaptive response of human beings, which can provide a necessary warning for possibly threatening situations.²² But it can also become a pathology generating psychological, physical, cognitive, and emotional effects.^{23,24} Anxiety displays characteristics such as fear, excessive concern, and tension, which can become constraining. The causes of anxiety are related to biological, environmental, and psychosocial factors, although they are not clearly defined. Such causes include the family setting, stressful situations, threatening experiences, learned responses, as well as alterations in the neurobiological gamma-aminobutyric acid (GABAergic) and serotonergic systems, and in the limbic system.²⁵⁻²⁷

For Spielberger et al,²⁸ there are two types of anxiety: trait anxiety, which refers to a person's propensity to feel anxious in different situations on a more permanent basis, and state anxiety, which reflects an anxious response to threatening stimuli.

There are several studies that indicate that people who work are more likely to display anxiety symptoms than those who do not, especially if they work remotely, where there is discomfort or job uncertainty.^{29,30}

Reiki

Reiki is a Japanese complementary therapy developed by Mikao Usui. The word means “universal life energy” in Japanese. It seeks to balance the energy of the person receiving it. To use this technique, Reiki practitioners must go through a training and initiation process where they become attuned to the universal energy and thus can act as a channel to transmit this energy.³¹ Hence, this technique consists of applying energy through the laying on of hands on different areas of the body (which are usually related to the person's energy centers, known as chakras). The hands channel the energy, which, together with an intention, and in some cases the use of symbols of power, enable a balance to be achieved between body, emotions, mind, and spirit. It should be noted that practitioners do not provide their energy but act as a channel, allowing the body and the energy to be directed intelligently to where they believe the best impact can be generated.³¹⁻³⁵

This bioenergetic therapy is easy to learn and use and can be applied in 3 different ways: face-to-face, distance, and by oneself. The benefits of this therapy include relaxation and a reduction of stress, anxiety, depression, pain, and fatigue, as well as providing the client with a more positive and optimistic outlook on life.¹²

Although there has been much controversy as to whether Reiki is more effective than a placebo, it has been shown in several studies that it is indeed effective. These studies have proven its effectiveness versus sham Reiki, a technique used as a placebo method in which an actor without any actual Reiki training performs the Reiki movements.³⁶ It has also been found to be more effective than music or meditation in inducing relaxation.³⁷ Additionally, Reiki has been shown to reduce anxiety, pain, stress, and depression, and to improve quality of life and self-esteem in chronically ill and cancer patients.^{11,38}

It has also been effective in work and university environments, reducing stress and burnout, while generating relaxation.^{35,39,40} It has even been shown to reduce anxiety among patients diagnosed with this condition, with better results than progressive

relaxation.¹³ Moreover, it has been proven to have long-term effects up to 1 year after the experiment.⁴¹

In addition, there have been programs in which the number of sessions has varied, as well as the duration of each session, considering that the minimum recommended is 4 sessions.^{35,41-44}

This study aims to determine the effect of a distance Reiki intervention program on stress and anxiety during the COVID-19 isolation period among people working in a company in the city of Lima, Peru. The associated hypothesis is that the distance Reiki intervention program will lead to a reduction in stress and anxiety levels in the aforementioned group. This study is considered important because it will provide initial evidence on the effects of Reiki in Peru, as well as a basis for promoting the use of this cost-effective technique as an alternative treatment, which would generate a relevant practical and social contribution.⁴⁵

The study was approved by the ethics subcommittee of the Faculty of Health Sciences and Psychology of the Peruvian University of Applied Sciences (Universidad Peruana de Ciencias Aplicadas) (FCS-CEI/222-03-21).

MATERIALS AND METHODS

Design

A quasiexperimental design with pre- and posttests, including control and experimental groups, was used.⁴⁶

Participants

The sampling used was nonprobabilistic purposive. The sample consisted of 28 employees of a company in Lima, Peru, belonging to the area of innovation focused on digital health who were working remotely during the study. Twelve of them were selected to form the experimental group. They received the Reiki sessions and participated in the program, while the remaining 16 made up the control group—the latter only participated in the pre- and posttests and did not receive any type of Reiki or sham Reiki intervention, or a placebo. The latter did not attend any psychoeducational workshop either. The selection criteria for the experimental group included showing interest in taking the sessions (as expressed in the initial questionnaire) and the time availability of both the Reiki volunteers and the participants.

The experimental and control groups had equal proportions in terms of gender, educational level, and marital status (Table 1).

Instruments

Global Perceived Stress Scale (EPGE, by its Spanish initials)

The version adapted by Guzmán and Reyes-Bossio⁴⁷ of Cohen et al's Perceived Stress Scale (PSS)⁴⁸ was used. This questionnaire comprises 13 Likert-type items that measure stress and distress in the last months and has evidence of validity and reliability.

For the present study, the eustress factor had an α of .836 and a ω of .845, whereas distress had an α of .731 and a ω of .744.

State-Trait Anxiety Scale (IDARE, by its Spanish initials)

Adapted by Castro⁴⁹ from the State-Trait Anxiety Inventory Scale developed by Spielberger et al,²⁸ this questionnaire has 20 items of the state anxiety parameter and 20 of the trait anxiety parameter.

For this study, the trait anxiety factor had an optimal reliability with an α of .884 and a ω of .891. In the case of state anxiety, the α was .923 and ω was .927.

Coronavirus Anxiety Scale

Version adapted by Caycho-Rodríguez⁵⁰ from the Coronavirus Anxiety Scale (CAS),⁵¹ this questionnaire, which has also been validated in other contexts,^{52,53} has 5 items with a Likert-type response format (0-4) and measures physical symptomatology related to the perception, thoughts, and information received regarding COVID-19 within the previous 2 weeks. These items are: "I felt dizzy, lightheaded, or faint, when I read or listened to news about the coronavirus"; "I had trouble falling or staying asleep because I was thinking about the coronavirus"; "I felt paralyzed or frozen when I thought about or was exposed to information about the coronavirus"; "I lost interest in eating when I thought about or was exposed to information about the coronavirus"; "I felt nauseous or had stomach problems when I thought about or was exposed to information about the coronavirus."⁵⁰

For this study, the CAS had an α of .868 and a ω of .881, indicating good reliability.

A sociodemographic questionnaire was also completed.

TABLE 1. Sociodemographic Characteristics of Pretest Participants^a

Characteristics	Experimental Group n (%)	Control Group n (%)	Total Participants n (%)
Gender			
Female	5 (42)	6 (38)	11 (39)
Male	7 (58)	10 (62)	17 (61)
Marital status			
Single	7 (58)	7 (44)	14 (50)
Married	4 (33)	3 (19)	7 (25)
Living with partner	1 (9)	5 (31)	6 (21)
Divorced	0 (0)	1 (6)	1 (4)
Education level			
Technical completed	2 (17)	2 (13)	4 (14)
College completed	7 (58)	10 (62)	17 (61)
Postgraduate completed	3 (25)	4 (25)	7 (25)

^aMost of the participants were born in Lima (75%); no participant had COVID-19 in the study period.

Intervention program

The intervention program “Reiki to Manage Stress” (RPE, by its Spanish initials) (Table 2) was designed according to the protocol of the Usui Reiki Association (Dickers, Usui Reiki master’s manual).

The program lasted 3 weeks and comprised 7 sessions. The first one was psychoeducation and the other 6 were divided into 2 weekly sessions, allowing for a greater focus on the practice of Reiki and using psychoeducation as a descriptive complement. The program began with a pretest email sent to both groups (experimental and control), followed by a 1-hour descriptive psychoeducation session aimed at helping participants identify positive and negative stress,¹⁸ but without delving into techniques to manage such stress. The subsequent practical sessions lasted 52 minutes each, with the application of Reiki taking up 42 minutes. These were applied only to the experimental group.

TABLE 2. Duration of RPE Program

Descriptions	Period
Program duration	3 wk
Session 1	1 h
Days per week	2 d
Duration of sessions 2-7	52 min
Procedure explanation	5 min
Practical part of session	42 min
Closure and indications for home	5 min

These sessions consisted of a brief explanation of the procedure to be performed, as well as of general check-up questions. Also, after the initial questions, distance Reiki was applied using the previously indicated protocol.

The program was validated by 3 expert judges who approved the program developed based on previous intervention programs (Table 3).^{35,41-43}

Procedure

The participants were called through an internal company notification. Among those who were willing to participate, those who met the initial screening criteria were selected. A pretest and a posttest were carried out, which included the previously mentioned measurement instruments and an informed consent through a Google Form. The experimental group underwent the intervention program with Reiki sessions, which were delivered via video call through the Zoom platform. It is worth mentioning that participants were asked to continue carrying out their daily activities as usual.

The Reiki sessions were administered to the experimental group by 12 volunteer Reiki practitioners ($n = 12$), who were recruited through Usui Reiki Peru’s community where 17% ($n = 2$) were Reiki level 2, 50% ($n = 6$) were Reiki level 3, and 33% ($n = 4$) were Reiki masters. All volunteers had more than 3 years’ experience and practice. The consistency and quality of the sessions provided was guaranteed through a prior alignment session with

TABLE 3. RPE Intervention Program

Module	Number of Session and Time	Topic	Goals	Psychoeducation	Materials	Experiential Exercises
Pretest assessment	Sending of email	Pretest assessment	Conducting pretest questionnaire on participants	Does not apply	E-mail	None
Stress	Session 1 1 h	Eustress and distress	Identifying positive and negative stress	What is positive and negative stress?	PowerPoint presentation	None
		Reiki for stress	Understanding how stress is a part of our life Understanding the benefits of Reiki for stress	How can we identify what stress we are experiencing? Introduction to Reiki as a stress management tool	Zoom platform	
Reiki for stress management	Session 2 52 min	Reiki practice	Receiving Reiki energy with the intention to relieve stress	Brief explanation of procedure Directions for home	Zoom platform	Remotely sending Reiki to the areas of the body according to Usui protocol
	Session 3 52 min	Reiki practice	Receiving Reiki energy with the intention to relieve stress	General check-up questions and closing questions Directions for home	Zoom platform	Remotely sending Reiki to the areas of the body according to Usui technique with the intention of reducing stress
	Session 4 52 min	Reiki practice	Receiving Reiki energy with the intention to relieve stress	General check-up questions and closing questions Directions for home	Zoom platform	Remotely sending Reiki to the areas of the body according to Usui technique with the intention of reducing stress
	Session 5 52 min	Reiki practice	Receiving Reiki energy with the intention to relieve stress	General check-up questions and closing questions Directions for home	Zoom platform	Remotely sending Reiki to the areas of the body according to Usui technique with the intention of reducing stress
	Session 6 52 min	Reiki practice	Receiving Reiki energy with the intention to relieve stress	General check-up questions and closing questions Directions for home	Zoom platform	Remotely sending Reiki to the areas of the body according to Usui technique with the intention of reducing stress
Session 7 52 min	Reiki practice and posttest assessment	Receiving Reiki energy with the intention to relieve stress Conducting posttest questionnaire on participants	Receiving Reiki energy with the intention to relieve stress Conducting posttest questionnaire on participants	General check-up questions and closing questions Directions for home	Zoom platform and Google Form questionnaire	Remotely sending Reiki to the areas of the body according to Usui technique with the intention of reducing stress

volunteers, the authors' supervision during the session, constant communication, and the fact that the volunteers were part of the same community (thus using the same technique). Furthermore, volunteers were chosen based on availability. No volunteers received any payment for their participation.

Analysis

A descriptive analysis of the pre- and posttests in the control and experimental groups was performed, as well as an inferential analysis (Student's *t* test for dependent groups and the Wilcoxon signed rank test). In addition, to interpret the size of the differences be-

tween the experimental and control groups, Cohen's *d* statistic was considered, expecting an irrelevant or null effect in the control group (<0.20) and a moderate to considerable effect in the experimental group (≥ 0.50). A minimum value of $\alpha = .70$ was considered.⁵⁴

RESULTS

Descriptive statistics were calculated for both groups in both the pre- and posttests (Table 4). It is important to note that both the control and experimental groups had similar minimum values, means, and maximum values in the pretest.

TABLE 4. Descriptive Analysis of Stress and Anxiety in CG and EG During Pre- and Posttests

Variable	EG				CG			
	Min	Max	Mean (SD)	ω	Min	Max	Mean (SD)	ω
Pretest								
EPGE	33.0	51.0	42.5 (4.56)		34.0	51.0	45.0 (4.37)	
Eustress	18.0	32.0	25.5 (4.44)	.852	19.0	32.0	27.5 (3.98)	.867
Distress	13.0	23.0	18.0 (3.50)	.768	15.0	24.0	18.4 (2.94)	.802
State A	29.0	53.0	41.0 (8.05)	.901	33.0	60.0	39.5 (9.52)	.948
Trait A	23.0	54.0	38.0 (9.77)	.915	27.0	53.0	37.0 (8.04)	.877
CAS	0.0	8.00	1.5 (2.56)	.828	0.0	12.0	2.0 (3.47)	.905
Posttest								
EPGE	38.0	46.0	43.5 (2.91)		38.0	53.0	43.0 (4.20)	
Eustress	21.0	34.0	27.0 (3.55)		20.0	33.0	27.0 (4.03)	
Distress	10.0	20.0	14.5 (3.55)		13.0	24.0	17.0 (3.65)	
State A	21.0	36.0	26.0 (5.14)		30.0	59.0	35.0 (9.52)	
Trait A	23.0	51.0	34.5 (9.15)		24.0	58.0	36.0 (8.09)	
CAS	0.0	13.0	2.0 (4.54)		0.0	11.0	1.5 (3.42)	

Abbreviations: CAS, Coronavirus Anxiety Scale; CG, control group; EG, experimental group; EPGE, Global Perceived Stress Scale.

Subsequently, the Shapiro-Wilk test indicated that the eustress, distress and trait anxiety distribution in pre- and posttests in both groups were normal, as well as state anxiety in the experimental group ($P > .05$), allowing the use of Student's t -test. However, the Wilcoxon signed rank statistic was used in the CAS, and in the state anxiety indicator as it did not show a normal distribution ($P < .05$).

In the case of the eustress and distress parameters, there was a large effect ($d = 0.921$ and $d = 1.006$, respectively).⁵⁵ This effect was accentuated when observing the impact on the control group, which was insignificant in eustress ($d = 0.0490$) and distress ($d = 0.2383$) (Table 5).

Regarding trait anxiety, a small impact was found in the experimental group and an insignificant impact

in the control group ($d = 0.373$ and $d = 0.159$, respectively). Furthermore, in the case of the state anxiety parameter, a large impact on the reduction of this parameter was observed in the experimental group ($d = 1.678$), while there was a moderate impact in the control group ($d = 0.3238$).⁵⁶

On the other hand, coronavirus anxiety had insignificant results in the experimental and control groups ($d = -0.472$ and $d = -0.0659$, respectively).⁵⁷

These results show that the initial hypothesis associated with this study is valid (ie, the Reiki intervention program allowed a reduction in the distress levels and a considerable increase in eustress in the experimental group versus the control group). In addition, the program allowed a considerable reduction in the state anxiety parameter in the

TABLE 5. Analysis of Differences in Stress and Anxiety Variables Between Pre- and Posttests in CG and EG

Variable	EG			CG		
	T(40)	P	Cohen's d	T(40)	P	Cohen's d
Eustress	3.19	.009	0.921	0.196	.847	0.0490
Distress	3.48	.005	1.006	0.953	.356	0.2383
State A	5.81	<.001	1.678
Trait A	1.29	.223	0.373	0.636	.534	0.159
	Wilcoxon	P	Effect Size	Wilcoxon	P	Effect Size
CAS	9.50	.260	-0.472	42.5	.859	-0.0659
State A	69.5	.300	0.3238

Abbreviations: CAS, Coronavirus Anxiety Scale; CG, control group; EG, experimental group.

experimental group, while in the control group the reduction was moderate. Also, in the case of the trait anxiety indicator, there was a small impact in the experimental group, but an insignificant impact in the control group. However, anxiety related to coronavirus did not have any major impact, so this indicator was not conclusive in this study.

LIMITATIONS

Although there were no results showing a reduction in anxiety due to COVID-19, this is the first time that this tool has been used in such studies. Moreover, participants did not show increased values in this indicator in the pretest, which may be the reason why no major reduction could be found.

In addition, anxiety psychoeducation was not included. Although there is previous evidence from Reiki programs that did not include psychoeducation,^{35,43} this program did include an initial part where the topic of stress was addressed, but not anxiety, which may have made the information inequitable, although this study did not focus on psychoeducation.

It should also be taken into account that the Reiki sessions could not be applied at the same time due to the unavailability of participants or Reiki volunteers.

Also, in this case participants were not selected in a fully random manner mainly because they came from a company and therefore their time availability was reduced and subject to the company's availability, as well as because of the management intricacies during the pandemic. Similarly, the Reiki volunteers went through the same situation, which made the program have a greater variety of volunteers, due to the reduced schedules available to them. It is suggested to consider similar schedules in future studies in order to measure and discard a possible time effect.

Finally, due to the characteristics of the study design, the results cannot be generalized.⁴⁶ We would suggest further research on the aforementioned factors.

DISCUSSION

As identified in relation to the objective, it was found that the Reiki intervention program reduced distress and increased eustress considerably in the experimental group versus the control group. This may

be due to the fact that, through the implementation, the participants perceived improvement in receiving the Reiki therapy. In this program, the number of sessions and the time employed may also have favored stress reduction, as shown in previous studies in programs with more than 4 sessions,^{41,44} as well as in samples of similar size.^{39,40}

On the other hand, considering that the Reiki intervention program sought to assess anxiety under Spielberger's theory,²⁸ which integrates state and trait anxiety, a low impact on trait anxiety was observed, which may be because this variable is related to personality, so changing it may be more difficult as it is a more permanent characteristic.⁵⁰ However, it could also be because the group assessed (employees) did not exhibit any medical condition. This may explain why previous studies have indeed shown an impact on this parameter: among patients with anxious pathology and chronic diseases.^{13,38}

However, the Reiki program contributed to improving state anxiety, which is in agreement with results found in previous studies.^{11,38} In spite of this, since there are improvements also in the control group, it cannot be ruled out that the use of the participants' personal resources, socioemotional characteristics, and activities that they carried out in the month of the experiment may have influenced the improvement in the period studied. In fact, 50% of participants in the control group carried out other stress reduction activities in the month of the experiment, including some that usually contribute to anxiety reduction, such as meditation or yoga.¹³

Some of the strengths of the present study are that although the program ended 1 week before the presidential elections in Peru in May 2021, which may have been a stress factor for some participants,⁵⁶ the results observed showed a decrease. Additionally, the sample of the present study had similar sociodemographic and pretest characteristics. Also, the study demonstrated validity and reliability regarding the instruments used. Finally, this study is one of the first involving distance Reiki.

CONCLUSIONS

The implications of the study include the contribution of Reiki to health in general, laying a foundation in Peruvian samples, while promoting further studies on the subject in Peru. In addition, it is valuable in that Reiki is a validated alternative therapy to reduce

anxiety and stress in a cost-effective way and without any need of face-to-face contact—which is important in view of the pandemic. However, it is recommended to replicate this type of program with participants other than company employees and to further explore the field of trait anxiety, looking for the implications of Reiki.

In conclusion, this study validates its main hypothesis and hopes to contribute to the management of anxiety and stress through complementary therapies where physical distance is not a limiting factor for improvement.

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