



LIAN GONG'S USE AT THE FAMILY STRATEGY: CHRONIC PAIN TREATMENT
USO DO LIAN GONG NA ESTRATÉGIA DE SAÚDE DA FAMÍLIA: TRATAMENTO DA DOR
CRÔNICA
USO DE LIAN GONG USO EN LA ESTRATEGIA DE SALUD FAMILIAR: TRATAMIENTO DEL DOLOR
CRÓNICO

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ABSTRACT

Objective: to evaluate the Lian Gong efficiency with a patients group who present chronic pain and are watched by a Health Family Team. **Methodology:** action-research, with the presence of a control group, conducted with 41 patients suffering with chronic pain for more than 3 months. The control group (n=20, CG) was treated with conventional medicines and the intervention group (n=21, IG) besides receiving the same medicines as the group one, practiced Lian Gong for 20 weeks. Interviews at the beginning and at the end of the research were conducted, evaluating the pain based on the changed questionnaire from the chronic pain inventory. **Results:** there was a pain improvement in both groups; however, at the group which practiced Lian Gong, 90,48% said they got better while at the group control it was 60%. **Conclusion:** in this study, the Lian Gong practice shows as an improvement factor to the chronic pain. **Descriptors:** Chronic Pain; Therapeutic use; Chinese Traditional Medicine.

RESUMO

Objetivo: avaliar a eficácia do Lian Gong em um grupo de pacientes que apresentam dor crônica e são assistidos por uma Equipe de Saúde da Família. **Método:** pesquisa-ação, com presença de grupo controle, realizada com 41 pacientes portadores de dor crônica por um período acima de 3 meses. O grupo Controle (n=20, GC) foi tratado com medicamentos convencionais e o grupo Intervenção (n=21, GI), além de receber a mesma medicação do grupo um, praticou o Lian Gong durante 20 semanas. Foram realizadas entrevistas no início e fim da pesquisa, avaliando a dor a partir do questionário modificado do inventário de dor crônica. **Resultados:** houve melhora da dor em ambos os grupos, entretanto, no grupo que praticou Lian Gong, 90,48% referiram melhora enquanto no grupo controle foi 60%. **Conclusão:** neste estudo, a prática do Lian Gong aparece como fator de melhora para a dor crônica. **Descritores:** Dor Crônica; Uso Terapêutico; Medicina Tradicional Chinesa.

RESUMEN

Objetivo: evaluar la eficacia de Lian Gong en un grupo de pacientes que tienen dolor crónico y son asistidos por un equipo de Salud de la Familia. **Metodología:** una investigación-acción, con la presencia del grupo de control, llevado a cabo con 41 pacientes con dolor crónico durante un período superior a tres meses. El grupo control (n = 20, GC) fue tratado con medicamentos convencionales y el grupo de intervención (n = 21, GI), recibieron la misma medicación del otro grupo, y hay practicado Lian Gong durante 20 semanas. Las entrevistas se llevaron a cabo al inicio y al final de la investigación, evaluando el dolor por lo cuestionario modificado del inventario dolor crónico. **Resultados:** hubo una mejoría del dolor en ambos grupos, sin embargo, el grupo que he practicado Lian Gong, 90,48% reportaron una mejoría, mientras que el grupo control 60% reportaron mejoría. **Conclusión:** En este estudio, la práctica de Lian Gong aparece como factor de mejora para el dolor crónico. **Descriptor:** Dolor Crónico; Uso Terapêutico; Medicina Tradicional China.

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INTRODUCTION

The interpretation of the noxious stimulus protects the organism and in a temporal context, can be classified as acute or chronic. Acute pain is in general associated to the organism lesion, with a short period of time and which vanishes with the organism's injury recuperation. On the other hand, the chronic pain is persistent or recurrent and is not always related to the organism lesion.¹

It is estimated that, internationally, 80% of the doctor's appointments are for the pains presence and 75% because of the chronic pain.² Data from the National Social Security Institute, in 2007, shows that 20% of the granted benefits by work absence were designed to patients with chronic pains.³

The studies related to the exercises use to the chronic pain improvement are still recent at the literature⁴, despite of the exercises' prescription to its treatment defended for more than 20 years for scientific literature.³ The actual treatment for chronic pain is characterized for multidimensional programs acting on the bio psychosocial characteristics² in the quest for auto-esteem through the social participation and physical and intellectual productivity.³

Based on respiratory therapy techniques of Traditional Chinese Medicine, Lian Gong is present from the 70's in China, where its use has become linked to improvement in the context of patients with muscle and joint pain, been showing excellent results with the practitioner population. In some municipalities in Brazil, this therapy already has been adapted as Suzano, São Paulo, but still without producing large efficacy studies in which they are practicing the exercise literature.⁴

The exposure of the subject to the Lian Gong method is a best practice for all ages and conditions, has no side effects that directly affect the individual or contraindications. We kept the best form of pharmacological treatment indicated for each individual, saving participants free of any effects that the lack of medication may cause.

Developed in China by Dr Zhuang, initially relying on 18 years (previously) that worked at the cervical spine to the lower limbs. After that, most were created 18 additional years (later) that work in the prevention and treatment of joint pain, tenosynovitis and disorders of internal organs such as hypertension and gastrointestinal disorders. Another sequence was created and became known as I Qi Gong and aims to strengthen the

heart-lung function and prevent and treat respiratory infections.⁵

Was not found in Brazil, a study to consolidate epidemiological data on chronic pain, although in 2002 a researcher describe the pain as the fifth vital sign and a determining factor in the clinical monitoring.⁶ The only state that these researchers found available was the EPI-DOR⁷, conducted by the University of São Paulo in 2009.

The study, when performed in a Brazilian Northeast capital, used the parameter chronic pain lasting longer than 6 months, meeting 41,4% of respondents (all aged above 20 years) with painful manifestations. In São Paulo, a city based study, using as parameter the pain over three months, 28,7% was positive the presence of pain. London showed 51,5% of elderly people referred pain especially in the back and lower limbs. Also, in the South, with a survey of people over 15 years old, he met 54,4% who reported headache, 35,6% and 35,1% in the joints in the back.

This study aimed to evaluate the effectiveness of Lian Gong in a group of patients who have chronic pain and are assisted by a Family Health Team.

METHOD

This is an action research, cross-section, with control group use, carried out with volunteers patients treated by a team of the Family Health Strategy/FHS, in the metropolitan area of northeastern Brazil capital, and were willing to participate of the practices and this study for 20 weeks.

All 41 participants are patients with chronic pain for more than three months and were selected through a screening performed at first, before the application of the instruments. It used the Survey of chronic pain modified⁸ that evaluates the pain condition in the patients studied. In addition to this, the questionnaire of the Brazilian Association of Population Studies (BAPS)⁹ for socioeconomic characterization of the project participants. All procedures were convicted and executed by health professionals of the Health Strategy of the Family and Medical Education teachers of the Alagoas Federal University. The interviews were conducted by Medical School researchers at the Federal University of Alagoas, previously trained and calibrated.

Respondents were divided by lot into two groups, one group exposed to pharmacological treatment (group control, n= 20) and another, in addition to pharmacologic therapy, the practice has been exposed Lian Gong (intervention group, n= 21).

Correia DS, Cardoso GMC, Cardoso DM et al.

Lian Gong's use at the family strategy: chronic...

The exclusion would be made with all respondents for the questionnaire, denied having chronic pain for more than three months; with exclusion was not. It was reported to the group that did not attend two practices during the 20 weeks would lead to group exclusion; there is no shortage of volunteers to the proposed meetings.

The intervention group followed the multidisciplinary program in which the series of Lian Gong exercises were applied for 20 weeks daily, in the morning, in the first half of 2014. The exercises were guided by professional physical education UBS Support Center to Family Health Strategy (SCFHS), which is specialized in the practice of Lian Gong. The control group remained only with drug therapy provided by UBS prescribed by attending physicians of the same. As it is found in the literature ⁵, exposure to Lian Gong has no side effects and to minimize the risks and following the ethical, remained the prescription of pharmacological treatment in this study.

Data were analyzed using Epi Info version 3.5.2 program, considering the gender, social class, employment status, age, pain, time, pain pattern (absent, mild, moderate and strong), As a dependent variable, the

evolution of the pain chart. They were used frequency measures and Fisher exact test at the end of work and question whether there was improvement in pain.

The study had the project approved by the Ethics Committee of the Federal University of Alagoas, nº 10288113.2.0000.5013 process.

RESULTS

The study group was presented as a sample of most women (85,4%) retired (48,8%) (Also by age/length of service or by disease/physical problem); over 60 (58,5%); inserted in the Brazilian social classification of the type B (48,8%).

When asked about the time you feel pain, both groups reported that, in most cases, had pain for more than 2 years (60% and 52,4%, control and Lian Gong, respectively) (Table 1), demonstrating the chronic disease.

Table 1. Distribution of respondents' second half of pain and group. Alagoas / AL, 2013

Pain Period	Control	Lian Gong
3 to 6 months	2 (10%)	2 (9,5%)
6 to 12 months	2 (10%)	7 (33,34%)
1 to 2 years	4 (20%)	1 (4,76%)
More than 2 years	12 (60%)	11 (52,4%)
Total	20 (100%)	21 (100%)

At first, patients undergoing Lian Gong and the control group responded to pain, both at its best and in the last 24 hours, the patient was moderate way.

In the past 6 months, with respect to the interference of pain in life, the information proved differently for the two groups, since most of the volunteers Lian Gong said that the pain in the last 6 months was mild and much or did not interfere in life, or interfered

moderately. In the control group, in the last 6 months, the pain found strong and interfering moderate so strong in your life.

In the second phase, the control group of patients began to say that the pain in his best time in the last 24 hours, the patient was experiencing mild to moderate in the interview time. Exposed to Lian Gong, the best time and when the new interview had no more pain (Table 02).

Table 2. Distribution of respondents by groups, according to standard pain at first. Alagoas / AL, 2013

	Pain at the Best moment		Pain at the last 24h		Pain at the last 6 months		Life interference	
	Control	Lian Gong	Control	Lian Gong	Control	Lian Gong	Control	Lian Gong
Absent	-	7 (33,34%)	-	6(28,57%)	2 (10%)	-	4 (20%)	8 (38,1%)
Fair	4 (20%)	3 (14,29%)	1 (5%)	3(14,29%)	-	1 (4,76%)	3 (15%)	4(19,06%)
Moderate	16 (80%)	10 (47,61%)	18 (90%)	9(42,86%)	5 (25%)	12 (57,14%)	5 (25%)	7(33,34%)
Strong	-	1 (4,76%)	1 (5%)	3(14,28%)	13 (65%)	8 (38,1%)	8 (40%)	2 (9,5%)
Total	20 (100%)	21 (100%)	20(100%)	21 (100%)	20 (100%)	21 (100%)	20(100%)	21 (100%)

In the last 6 months, the control group cited moderate to severe pain, and the second group, mild to moderate. In the other hand, interference in life, became moderator in the

control group and leads us they did Lian Gong (Table 3).

Table 3. Distribution of respondents by groups according to pain pattern in the second time. Alagoas / AL, 2013

Pain at the Best moment	Pain at the last 24h		Pain at the last 6 months		Life Interference			
	Control	Lian Gong	Control	Lian Gong	Control	Lian Gong		
Absent	2 (10%)	15 (71,43%)	1 (5%)	12 (57,14%)	-	-	4 (20%)	7 (33,34%)
Fair	12 (60%)	6 (28,57%)	7 (35%)	9 (42,86%)	-	10 (47,62%)	5 (25%)	10 (47,6%)
Moderate	6 (30%)	-	12 (60%)	-	8 (40%)	10 (47,62%)	9 (45%)	3 (14,3)
Strong	-	-	-	-	12 (60%)	1 (4,76%)	2 (10%)	1 (4,76%)
Total	20 (100%)	21 (100%)	20 (100%)	21 (100%)	20 (100%)	21 (100%)	20 (100%)	21 (100%)

At the end of the job, He was asked whether the participants had improved or not after interventions. Both groups answered yes, and the Lian Gong with 90,48% of the participants and the control group with 60%. On the inadequacy of the chi-square test was applied Fisher's exact test ($p = 0,027$), demonstrating the statistical validity of the Lian Gong practice hypothesis assist in improvement of chronic pain

DISCUSSION

Chronic pain has a high cost to the public health system, being a problem even for the economic production of the country, away from the working class of their service.³ This study found the majority of the sample of retirees and women. This brings reflection to the fact that pain is cause for further investigation by checking whether the retirement would be a way out for these people, since it was reported that the pain felt strongly interfered in the daily life of these patients.

Other researchers obtained the same characterization findings of the study population here.¹¹ that is repeated in the international literature¹¹⁻¹² where most of the population affected by chronic pain is retired women. In another state in 2008 found the same proportion of higher prevalence of chronic pain in women, reaching that number to 70% of participants. It is assumed that hormonal variations, lower threshold and tolerance to pain may be explanations for this finding.¹³

In argue about the role of the menstrual cycle in pain awareness among women, is also associated with a social role to the greater perception of pain since there is an accumulation of roles and responsibilities, such as caring for the offspring, household management and employment and often

elderly relatives in their family life under his observation.^{14,10}

Another author using the Project Database Monitoring Chronic Diseases of Salvador Population (PDMCDSP), reached the same conclusion, where 55,4% of women have chronic pain.¹¹ The difference to what was found in this study is in the socioeconomic classification where participants were in lower social class. One of the hypotheses to explain this fact is that the city here searched, Pilar, is a place that receives the transfer of oil royalties, which can slightly improve the economic situation of the population.

Another important factor related to the study cited above was the age of the population, where the carriers participating in chronic pain showed progressive results when compared to an age group of 20 to 29 years.¹¹ Thus, chronic pain can be in young adults, related to work activities, and chronic pain process in the elderly, associated with aging, thereby increasing the risk of chronic degenerative diseases. These data are similar to those found here, since the behavior of pain in the age groups gradually increased with age, reaching 58,54% in over 60.

Another state, using the pain score in mild, moderate, severe and very severe among patients with chronic pain for at least 6 months, achieved the result of 33,66% of respondents complaining of intense pain and 42% stating pain very intense, resembling that found in this study (table 02);¹⁵ It was also observed that the higher demand of the participants were seen in primary care, a fact that makes it important to know the patient with chronic pain, how it behaves and how the interference of this process can interfere in your life, in order to improve service provided to these patients in UBS.

There were no research for the literature review period that addressed the use of Lian

Correia DS, Cardoso GMC, Cardoso DM et al.

Lian Gong's use at the family strategy: chronic...

Gong in improving research for chronic pain and clinical improvement of the patients, however, you can try a parallel between research that studied patients with fibromyalgia and found that low intensity training, compared to high intensity, have improved physical fitness and positively affect the psychological and general health of patients.¹⁶

Lian Gong has the basic characteristic fusion of stretching movements with traction, which are slow, combined with the natural breathing and coordinated by the practitioner. Thus, it acts in postural correction of practitioners, physical strengthening and treating and preventing pain in the neck, shoulders, lower back and limbs⁵, It can be used adjuvant way to treat chronic pain. What can be explained as a favorable factor for the reduction of pain in this study (Table 03).

In Brazil, especially in primary care, non-pharmacological therapies are still underutilized in order to improve the painful process, and drug therapy practice established by Western medicine for pain control.¹³ With the confirmation of the hypothesis of this study that the practice of Lian Gong had statistically significant (Fisher's exact test equal to 2,7%) view that the combination of these two types of intervention should be considered, since the practice of low-impact exercise tends to decrease the need for medication¹³, improving the life and reducing side effects of drugs, especially in the elderly.

CONCLUSION

The groups improved at the pain, but the group in case, exposed to Lian Gong, presented a higher improvement at the pain symptoms, comparing to the participants who used only medicines, proving that the Lian Gong practice can help in the chronic pain treatment.

It suggests the conduction of new studies with the Lian Gong practice aiming that this oriental millenary technique makes effectively part to the people care in Brazil.

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Correia DS, Cardoso GMC, Cardoso DM et al.

Lian Gong's use at the family strategy: chronic...

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