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# The use of cupping therapy as a proposal to promote health for employees of a private university in Fortaleza – CE

El uso de ventosaterapia como propuesta de promoción de la salud de los empleados de una universidad privada en Fortaleza – CE

O uso da ventosaterapia como proposta de promoção à saúde para funcionários de uma universidade privada em Fortaleza – CE

## ABSTRACT

**Objective:** To evaluate the effects of cupping therapy as a way of promoting health among employees of a private University in Fortaleza-CE. **Methodology:** The study was carried out through an interventional and longitudinal research in the laboratories of the Course of Aesthetics and Cosmetics at the University of Fortaleza, in Fortaleza-CE. The collection period was from August to October 2019, twice a week with 08 employees who are allocated at the University, who were invited by e-mails, and by the laboratory technique at the University itself. **Results:** It was found that with the therapy approached there was an improvement in the quality of life, quality of sleep, improvement of mood, reduction of the use of medicines to sleep and reduction of pain, symptoms reported by the volunteers. **Conclusion:** The use of cupping therapy had several health benefits for the volunteers present in this study. Among them, we can highlight the improvement in the quality of sleep and consequently the increase of the disposition and improvement of the mood, providing greater quality of life.

**DESCRIPTORS:** Traditional Chinese Medicine; Quality of Life; Worker's Health.

## RESUMEN

**Objetivo:** Evaluar los efectos de la eólica como forma de promover la salud entre los empleados de una Universidad privada en Fortaleza-CE. **Metodología:** El estudio se realizó a través de una investigación intervencionista y longitudinal en los laboratorios del Curso de Estética y Cosmética de la Universidad de Fortaleza, en Fortaleza-CE. El período de recolección fue de agosto a octubre de 2019, dos veces por semana con 08 empleados que se encuentran adscritos en la Universidad, quienes fueron invitados por correo electrónico, y por la técnica de laboratorio en la propia Universidad. **Resultados:** Se encontró que con la terapia abordada hubo mejoría en la calidad de vida, calidad del sueño, mejora del estado de ánimo, reducción del uso de medicamentos para dormir y reducción del dolor, síntomas reportados por los voluntarios. **Conclusión:** El uso de la terapia de viento tuvo varios beneficios para la salud de los voluntarios presentes en este estudio. Entre ellos, podemos destacar la mejora en la calidad del sueño y en consecuencia el aumento de la disposición y mejora del estado de ánimo, proporcionando una mayor calidad de vida.

**DESCRIPTORES:** Medicina Tradicional China; Calidad de Vida; Salud del Trabajador.

## RESUMO

**Objetivo:** Avaliar os efeitos da ventosaterapia como forma de promoção da saúde em colaboradores de uma Universidade privada de Fortaleza-CE. **Metodologia:** O estudo foi realizado por meio de uma pesquisa intervencionista e de caráter longitudinal nos laboratórios do Curso de Estética e Cosmética da Universidade de Fortaleza, em Fortaleza- CE. O período da coleta foi de agosto a outubro de 2019, duas vezes por semana com 08 funcionários que estão alocados na Universidade, que foram convidados mediante e-mails, e pela técnica do laboratório na própria Universidade. **Resultados:** Verificou-se que com a terapia abordada houve uma melhora na qualidade de vida, qualidade do sono, melhora do humor, redução do uso de medicamentos para dormir e redução das dores, sintomas relatados pelos voluntários. **Conclusão:** O uso da ventosaterapia obteve diversos benefícios para a saúde dos voluntários presentes neste estudo. Entre eles, podemos destacar a melhora na qualidade do sono e consequentemente o aumento da disposição e melhora do humor, proporcionando maior qualidade de vida.

**DESCRIPTORES:** Medicina Tradicional Chinesa; Qualidade de Vida; Saúde do Trabalhador.

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**INTRODUCTION**

The term stress indicates the condition generated by the perception of stimuli that cause emotional anxiety and, when disturbing the balance, initiate an adaptation process, being characterized by the increase in the elimination of adrenaline producing various manifestations in the body, with physiological and psychological disorders<sup>(1)</sup>.

In the present century, stress has presented imbalances related to the emotions of the population<sup>(2)</sup>.

Dozens of surveys have been carried out according to this theme due to the negativity of occupational stress in the health and well-being of employees, causing stressed workers, decreased income, leading to increased costs for companies; when related to health problems, with increased absenteeism, turnover and the number of accidents in the workplace<sup>(3)</sup>.

Researches complement that, the occupational stress has been studied for a better understanding of its origin, mecha-

nisms and consequences in the health and development of the work activities performed by the employees<sup>(3,4)</sup>.

One of the reasons that is linked to activities poorly performed in their work environments is exactly the excess of charges, affecting the psychological and causing stress, generating tiredness, muscle pain and insomnia<sup>(5)</sup>.

Thus, the Integrative and Complementary Practices (PIC) has been offering the ability to increase the quality of life of people affected by numerous diseases, including stress. With the application of several therapies, an improvement in the health of these individuals is obtained. Some of the ones we can mention are: homeopathy, phytotherapy, immunotherapy, therapeutic touch, Reiki, chakra unblocking / alignment, artistic therapy, curative eurhythm, visualization, group exchange, meditation, anthroposophical biographical work and relaxation through cupping therapy<sup>(6)</sup>.

Cupping therapy has been a very popular procedure for those looking for aesthetics as a form of comfort and health,

considering that this treatment method proceeds in two areas, bringing great therapeutic responses, providing expansion in the circulation and oxygenation of the tissues through a massage<sup>(7)</sup>.

To maintain health, it is necessary to take care not only of the body but also of the soul and spirit. Faced with so many benefits that this technique can bring us, its use to treat affected people in the work environments has been highlighted<sup>(8)</sup>.

Recent studies point to the importance of cupping therapy as a therapeutic form in many clinical conditions, being defined as a complementary therapy that basically consists of applying a vacuum to some points of the skin using cups in areas that have pain, acupuncture points or reflex zones. The vacuum formed by the glass causes the microcirculation of the skin to release toxins increasing local circulation<sup>(9)</sup>.

Treatment with cupping therapy has the purpose of achieving energy balance, considering that these pathologies occur, in most cases, due to emotional factors. The application of the suction cups to the dorsal

Shu points, which represent the Zang-Fu settling points, will bring benefits to the patients, considering that the suction cups act by removing excess energy from the stagnant Zang-Fus, making the affected blood circulate, decreasing heat and bad energies, thus restoring balance<sup>(10)</sup>.

The use of holistic therapies is little known as relaxation therapies, however, studies point to cupping therapy as an extremely effective therapy in reducing pain, muscle tension, and increasing the quality of life of people who experience a high level of stress and an intense workload. This theme was chosen to improve the quality of life of university employees.

This study aims to verify the effects of cupping therapy as a health promotion proposal for employees of a private university in Fortaleza-CE.

## METHODOLOGY

It was a quantitative, interventional, and longitudinal study, carried out in the laboratories of the Course of Aesthetics and Cosmetics at the University of Fortaleza, in Fortaleza-Ceará. The collection period was from August to October 2019, once a week, totaling 12 visits. The sample consisted of 08 employees, who were invited through emails and posters placed in the various sectors of the university.

The research included men and women between 25 and 65 years old, hired for at least one year. Employees with some health problems were excluded from the study, according to the contraindications of cupping therapy, which are: capillary fragility, cancer, open wounds, inflammation, and fever.

The volunteers were initially evaluated and submitted to an evaluation form to identify the inclusion in the research. We clarify that it is not possible to apply the suction cups every time in the same place, due to the precision of a minimum time for the circulatory system to fulfill its function of increasing oxygenation until the stains disappear entirely.

Participants responded to QWLQ 78, proposed by Junior, Pilatti, Pedroso<sup>(11)</sup>,

which is a specific questionnaire validated on quality of life at work, through a self-completion test with questions to be answered on a scale of 1 to 5 (1 - nothing, 2 - very little, 3 - more or less, 4 - a lot, 5 - extremely).

All patients signed the Informed Consent Form (ICF) indicating agreement with the applied methodology and stages of the study.

In the anamnesis, all patients reported feeling greater discomfort in the trapezius and lumbar region. In this way, the volunteers were placed in prone position, a back cleaning was performed with a body fluid. Then, the body massage cream was applied throughout the region, sliding with the digital pulps in the form of massage to identify the places with points of tension. Afterwards, the acrylic cup, characteristic of cupping therapy, was applied, sliding along the entire length of the back, making 05 types of movements, until hyperemic. The pressure applied was varied, according to the individual characteristics of each volunteer and based on anamnesis.

The application of the suction cup in a sliding and fixed way did not show stains, such as bruises. There was a change in the local color, some red, brown and purple, no black color was observed. These observations served as an analysis of blood quality<sup>(12)</sup>.

As a result, the skin was purified by capturing a greater amount of oxygen, which made it possible to increase the movement of natural fluids. Negative pressure was used in order to clean the paralyzed blood<sup>(13)</sup>.

Subsequently, the suction cup was positioned in a fixed manner, following the acupuncture points, which must remain on the patient's skin, varying from five to ten minutes in a sufficient way to obtain the desired results<sup>(14)</sup>.

In the first three sessions, the glasses remained for seven minutes and in the following sessions, ten minutes. The windscreen cups were positioned in the paravertebral region and according to the individuality of each volunteer, based on their greatest point of tension. When necessary, pins were applied to the cup at the trigger points. When removing these

objects from the body, it ended with a slide with massage cream in place to soften the redness and it was explained to the patients that such spots would disappear after a few days and that they should not be exposed to the sun, but, if necessary, to use the sunscreen, so that the stains do not become prolonged or even permanent.

The data were analyzed quantitatively using graphs with the aid of the Excel program to present the general results. Regarding the questions related to the questions, using questioning about the changes in their daily routine related to the improvement of quality of life, through the Questionnaire for assessing quality of life at work QWLQ 78. The qualitative data served as illustrative data of the volunteers to measure the degree of well-being and satisfaction with the proposed therapy.

The study was approved by the Ethics Committee of the University of Fortaleza (CEP / UNIFOR) under number 3,711,345.

## RESULTS

The sample counted with the participation of 62.5% (n = 5) women and 37.3% of (n = 3) men, in the age group from 25 to 65 years, with varied professions, being 3 secretaries, 2 teachers, 1 laboratory technician, and 1 administrative assistant. Regarding the main complaint, all volunteers, 100%, (n = 8) responded that they had pain in the trapezius and lumbar region. All volunteers, 100%, (n = 8) denied the presence of allergies, open wounds, stroke or any hemorrhagic disorder, fever, neoplasms, fractures in the place to be treated, hepatitis, chronic diseases, infection, altered tissue sensitivity, capillary fragility and ecchymosis. Twenty-five percent (n = 2) had previous surgery, specifically cesarean section. One of the volunteers, 12.5% (n = 1) reported that she had previously attended cupping therapy sessions for 2 months.

Based on the assessment of the QWLQ 78 questionnaire, which concerns the assessment of quality of life at work, it was noted in question 1 that it concer-

ns how you assess your freedom to create new things at work. It was reported that after visits, 25% (n = 2) increased their freedom of creation at work, to 37.3 (n = 3) it remains the same and to 37.5 (n = 3) this freedom decreased.

In Graph 1, referring to question 2, related to how you assess your motivation to work, it was noted that 25% (n = 2) increased the motivation to work, 50% (n = 4) it persists and in 25% (n = 2) this motivation decreased.

In question 3, which does justice to how you evaluate equality of treatment among employees 12.5% (n = 1) stated

that this equality in treatment between them rose, 62.5% (n = 5) declared the permanence of the treatment and 25% (n = 2) stated a decrease in equal treatment.

In Graph 2, which explains question 4 and refers to the measure that you assess your sleep, it was found that 87% (n = 7) reported an increase in sleep quality and 12.5% (n = 1) declared that your sleep assessment remains the same.

In question 5, which is fair to how you assess your freedom of expression at work, 37.5% (n = 3) noted an increase in freedom of expression, 37.5% remains the same and 25% says it has decreased.

Question 6, which is about your accomplishment with the work you do, 37.5% (n = 3) increased that accomplishment, 12.5% (n = 1) remained with the same accomplishment and 50% (n = 4) felt become more accomplished with the exercise of work.

Question 7 shows how proud you are of the organization in which you work, and it was analyzed that 50% (n = 4) increased this pride for the organization and 50% (n = 4) remained with the same opinion.

Graph 3 refers to question 8 and talks about the extent to which some problem with sleep harms your work, it was found that 37.5% (n = 3) stated a harmful increase in work related to sleep, 37.5 (n = 3) remained with the same opinion and 25% (n = 2) said that this relationship had decreased.

Question 9 refers to the extent to which you feel proud of your profession, it was observed that 25% (n = 2) had an increase in that pride, 62.5 (n = 5) remained and 12.5% (n = 1) decreased pride in the profession.

It was found that in question 10, about how you evaluate the quality of your relationship with your superiors and / or subordinates, 12.5% (n = 1) increased the quality of your relationship with subordinates and / or superiors, 62.5 (n = 5) remained the same opinion and 25% (n = 2) decreased the quality of the relationship.

It was observed in question 11 that it lives up to the fact that his family evaluates his work, that 50% (n = 4) increased his opinion and 50% (n = 4) remained with the same.

It was found in question 12 that talks about the extent to which you are satisfied with your level of participation in the company's decisions, that 25% (n = 2) are more satisfied, 37.5% (n = 3) continued in the same way and 37.5% (n = 3) decreased this satisfaction with the level of participation in decisions.

It was found in question 13 that it analyzes whether you are satisfied with your level of responsibility at work, that 50% (n = 4) remained with the same satisfaction and 50% (n = 4) decreased that level.

It was observed in question 14, which concerns satisfaction with training given by the organization, that 37.5% (n = 3) is more

Gráfico 1. Em que medida você avalia sua motivação para trabalhar? Fortaleza, CE, Brasil, 2019 (n=8)

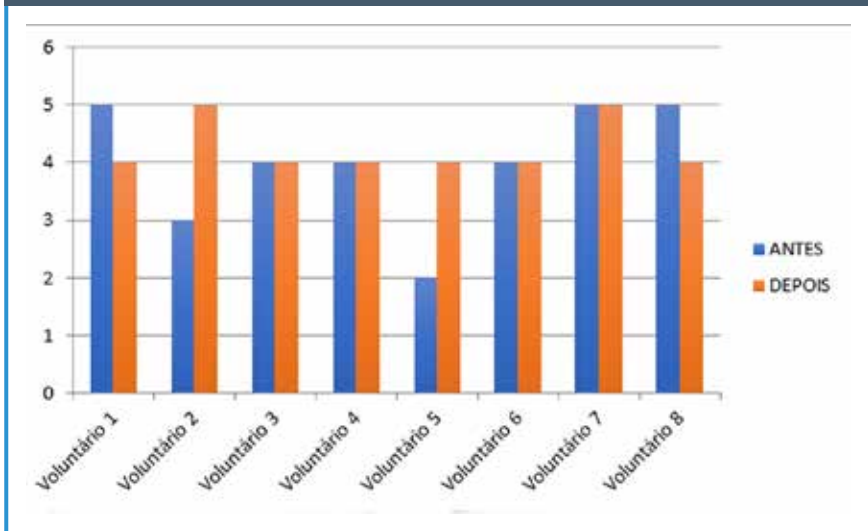
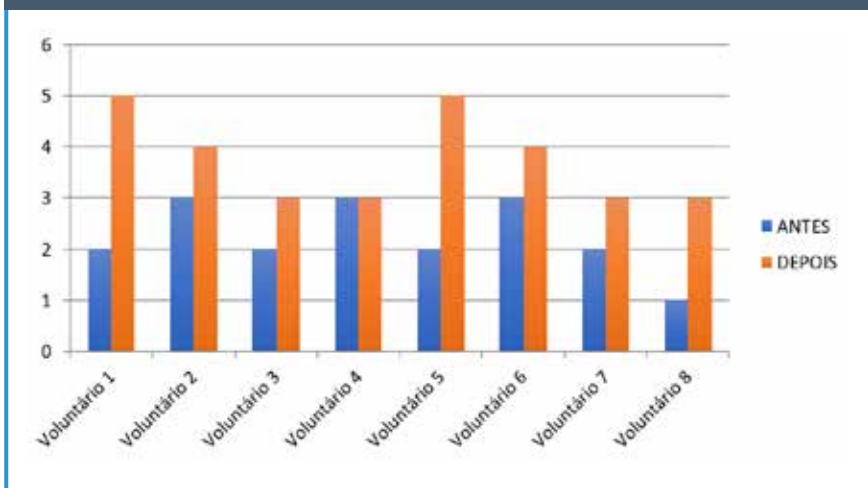


Gráfico 2. Em que medida você avalia o seu sono? Fortaleza, CE, Brasil, 2019 (n=8)



satisfied, 50% (n = 4) remained at the same level and 12.5% (n = 1) reduced satisfaction.

Question 15 talks about the extent to which you are respected by your colleagues and superiors, it was noted that 25% (n = 2) feel more respected, 62.5% remain with the same opinion and 12.5% reduced as they are respected by colleagues and superiors.

It was found in question 16 that it analyzes whether you are satisfied with the variety of tasks you perform that, 25% (n = 2) felt more satisfied with the variety of tasks, 50% (n = 4) remained with the same satisfaction and 25% (n = 2) is less satisfied.

Question 17 addresses the following question: Are your basic physiological needs adequately met? In it, it was found that 25% (n = 2) is more satisfied, 25% (n = 2) remained with the same degree of satisfaction and 50% (n = 4) decreased sa-

tisfaction with basic physiological needs.

In question 18, which concerns how you evaluate the spirit of camaraderie in your company, it was found that 25% (n = 2) better evaluated the spirit of camaraderie and 75% (n = 6) remained with the same opinion.

Regarding question 19, which you check as you feel comfortable in the work environment. Twenty-five percent (n = 2) is more comfortable in the work environment, 50% (n = 4) remains with the same degree of satisfaction and 25% (n = 2) is less satisfied.

Question 20, explained in Graph 4, is about how satisfied you are with your quality of life at work. In it, 25% (n = 2) is more satisfied, 60% (n = 5) remained with the same satisfaction with the quality of life at work and 12.5% (n = 1) decreased satisfaction.

After the application of the QWLQ-questionnaire (modified), the volunteers were also assessed through an individualized assessment, in which they were asked to answer some questions. When asked about “Make a brief summary of your experience with cupping therapy”, below are the statements of some volunteers:

*“The pain improved, and the amount of pain relief medication decreased, and the sleep improved a lot” (V.M.C.O., 61 years old).*

*“It was very satisfactory, I got a lot of results with the treatment, the students were totally professional and I intend to continue doing this treatment” (B.L.O., 25 years old).*

*“The suction cup treatment brought immediate improvement in quality of life, there was an increase in the disposition and improvement of pain” (M. P. S. P., 27 years old).*

*“I had a great experience, the improvement was notable the pains that decreased and during the time that I did the sessions my posture improved a lot” (A.B., 43 years old).*

*“Through treatment with cupping therapy I was able to work on the tensions that bothered me during the day and night. I noticed that with the treatment the pains decreased, and the mood and mood increased, providing a better quality of life” (I.S.M., 27 years old).*

## DISCUSSION

In this study, cupping therapy proved to be effective in combating back pain in adult men and women, not only in variables related to pain, but also in improvement related to quality of sleep, increased disposition in the workplace, greater productivity in activities performed at work, increased willingness to practice physical activity and improved mood.

Gráfico 3. Em que medida algum problema com o sono prejudica o seu trabalho? Fortaleza, CE, Brasil, 2019 (n=8)

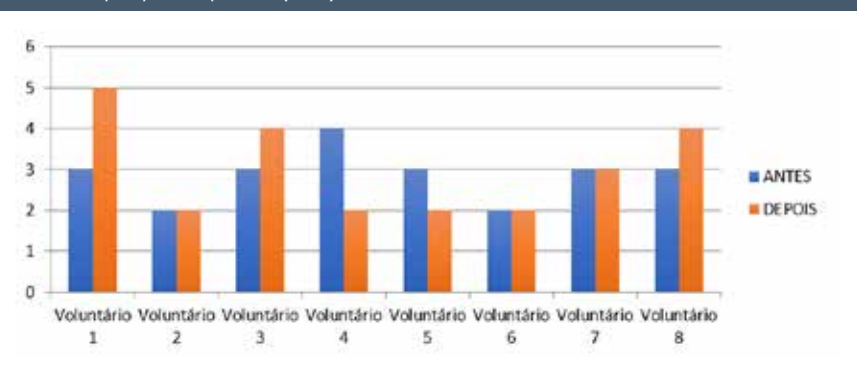
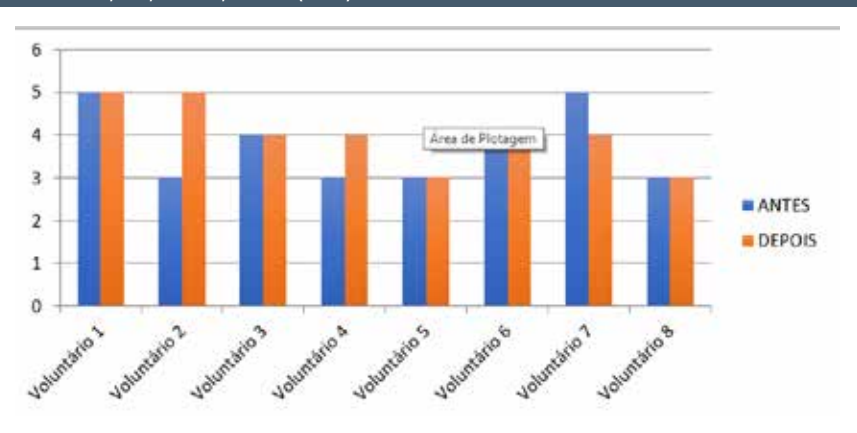


Gráfico 4. Em que medida você se sente confortável no ambiente de trabalho? Fortaleza, CE, Brasil, 2019 (n=8)



Moura et al<sup>(15)</sup> conducted a study through a systematic review of the literature to analyze the intensity of back pain in adult clients. He elaborated guiding questions to analyze chronic back pain with adults who were 18 years-old or older, who reported feeling this discomfort for more than three months in at least one of the spinals, cervical, thoracic and / or lumbar segments. After analyzing and carrying out the technique with various forms of application, it was seen that in a broad way, the results showed substantial variation in the application of cupping therapy. These findings corroborate this study, in which the evaluated volunteers also showed improvement in back pain with the application of cupping therapy.

Freire and Peixoto<sup>(16)</sup> carried out a study of the effects of the application of cupping therapy on chronic low back pain by suctioning the skin with the suction cup associated with heat with the intention of achieving the result of myofascial release with the use of warm water with the sweeping technique, using pressure according to each participant and respecting the degree of pain tolerance of each of them, staying for 10 minutes and observing the increase in blood flow in the region. It was found that, after applying the suction cup, there was a significant improvement in capacity and quality of life, increased range of motion and reduced lumbar pain in all participants homogeneously.

## FINAL CONSIDERATIONS

The use of cupping therapy obtained several benefits for the health of the volunteers present in this study, among them, we can highlight the improvement in the quality of sleep and, consequently, the increase of the disposition and improvement of the mood, providing greater quality of life.

All participants reported having relaxed during treatment sessions and noted that the cupping therapy technique is beneficial in terms of reducing muscle tension. There was also the perception that, after completing therapy, one of the participants reduced the amount of medication orally, due to the relief of localized pain.

Thus, we note that the technique used is beneficial and effective in several diseases, whether related to the emotional or physical factor. ■

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