



## **The meditation as a stress reliever in residents of the America Labadie Nursing Home**

*La meditación como atenuante del estrés en internos del Hogar de Ancianos América Labadie*

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### **ABSTRACT**

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**Introduction:** the increase in aging in the Cuban population constitutes a core issue in research, therefore improving their quality of life is a task of the first order. These patients have more than 6 hours a day of free time and do not take advantage of it properly, for this reason they are offered techniques such as meditation.

**Objective:** to describe the impact of meditation as a stress reliever in inmates of the América Labadie Nursing Home.

**Method:** a descriptive cross-sectional study was carried out with 25 patients from the América Labadie Nursing Home, the main variables were the amount of free time, assessment of the state of mental and general health, the taking of vital signs before and after the meditation exercise.

**Results:** the age group with the highest representation was from 70 to 84 years with 14 patients (56 %) 72 % (n=18) of the patients have 8h of free time a day and 33,3 % of these rate their mental health as fair 64 % present a bad use of their free time, which represents a stressor in them. After applying the meditation, the decrease of the pulse rate was seen in the patients from 54 to 70 years and the increase of 2 % in the oxygen saturation of the patients from 85 years or more.

**Conclusions:** The modification of physiological variables demonstrates the impact of meditation on them, which shows its contribution in mitigating stress in the elderly.

**Keywords:** Elderly; Stress; Meditation

## RESUMEN

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**Introducción:** el incremento del envejecimiento en la población cubana constituye un tema medular en la investigación, por esto mejorar la calidad de vida de ellos es tarea de primer orden. Estos pacientes tienen más de 6 horas al día de tiempo libre y no lo aprovechan adecuadamente, por ello se le ofrecen técnicas como la meditación.

**Objetivo:** describir el impacto de la meditación como atenuante del estrés en internos del Hogar de Ancianos América Labadie.

**Método:** se realizó un estudio descriptivo transversal con 25 pacientes del Hogar de Ancianos América Labadie, las principales variables fueron la



cantidad de tiempo libre, valoración del estado de salud mental y general, la toma de signos vitales antes y después del ejercicio de meditación.

**Resultados:** el grupo de edad de mayor representación fue de 70 a 84 años con 14 pacientes (56 %). El 72 % (n=18) de los pacientes poseen 8h de tiempo libre al día y el 33,3 % de estos valoran su salud mental como regular. El 64 % presenta un mal aprovechamiento de su tiempo libre, lo cual representa un estresor en ellos. Después de aplicada la meditación se vio la disminución del pulso en los pacientes de 54 a 70 años y el incremento de un 2 % en la saturación de oxígeno de los pacientes de 85 años o más.

**Conclusiones:** la modificación de variables fisiológicas demuestra el impacto de la meditación en estas, lo cual evidencia su contribución en atenuar el estrés en el adulto mayor.

**Palabras claves:** Adulto mayor; Estrés; Meditación

## INTRODUCTION

Among the challenges of the 21st century, systematic, multi-sectoral and harmonious care for the elderly is of great interest to global society, since the number of citizens aged 60 or older is increasing, with an annual growth rate of 2.4 percent, surpassing that of those under 15 years of age, which represents 1.6 percent of the population. This phenomenon alone shows the increase in the number of older adults and therefore an increase in diseases typical of their age, which forces medical personnel to prepare to face the situation in order to improve the quality of life of these people. Among the risk factors that can most affect the well-being, health and quality of life of the elderly is stress. <sup>(1)</sup>

Stress is a complex process that, in general terms, is said to be an adaptive process in which environmental stimuli; cognitive assessment; coping methods; neurovegetative, motor and cognitive-behavioral responses; and the subject's personal modulating factors interact. <sup>(2)</sup>

Stress is defined as the human response to situations of fear, tension and danger. Statistics show that 43% of the world's adult population suffers from adverse health effects such as heart and respiratory diseases, cirrhosis, suicide and premature aging. The Center for Disease Control and Prevention suggests that some alternatives to cope with stress could be sleeping properly, avoiding excessive drug use, exercising, eating properly and practicing



meditation, since scientific evidence has demonstrated the positive impact of these. <sup>(3)</sup>

Meditation is defined in the literature as a process of full concentration that allows the flow of thoughts without remaining in any specific one, giving way to the conscious appreciation of the here and now, allowing the generation of a consciousness free of suffering, attachment and aversions, since through it the possibility of achieving, even in the midst of challenges and difficulties, a certain degree of physical and mental peace is manifested. <sup>(4)</sup>

The practice of meditation recommended by health professionals has generated a positive impact on practitioners to such an extent that different scientists have reported that these disciplines increase the quality of life, decrease anxiety and depressive symptoms, improve the relief of chronic pain and adherence to pharmacological treatments. <sup>(5-8)</sup>

The Cuban government establishes among the country's priority policies the right of citizens to public health services free of charge and with the highest quality, and special attention is also given to the geriatric sector, which has gained great relevance due to the marked population aging that our nation suffers. That is why today the aspects related to population aging and how to guarantee better care for the elderly are considered as a primary line of research.

At this point, the present investigation acquires much connotation since it contributes to improving the quality of life of this age group, which is why this was carried out with the objective of describing the impact of meditation as a stress reliever in inmates of the America Labadie Nursing Home.

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## MATERIALS AND METHODS

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An observational, descriptive and cross-sectional study was carried out in January 2023 at the América Labadie Nursing Home. A population of 25 patients from the América Labadie Nursing Home who were valid inmates of this center was selected. These patients were selected based on whether they had access to the study and could care for themselves. The entire population was worked with, so a sample design was not required.

Variables analyzed were: Age (65 – 69, 70 – 84, 85 – more), Sex (Female, Male), Amount of free time (2 h, 4 h, 6 h, 8 h), Assessment of the elderly person on their mental health (Good, Average, Bad), Assessment of the elderly person on their general health (Good, Average, Bad), Use of free time



(Good: 5 or more hobbies, Average: 3 to 4 hobbies, Bad: 1 to 2 hobbies), Initial pulse (Number of pulses measured by the pulse oximeter), Initial oximetry (Percentage of oxygen saturation measured by the pulse oximeter), Final pulse (Number of pulses measured by the pulse oximeter), Final oximetry (Percentage of oxygen saturation measured by the pulse oximeter).

The study started with a literature review and the general design of the study protocol was carried out, for which a questionnaire instrument and a data collection form were structured. After collecting the primary data through interviews with each patient, the initial vital signs were taken (pulse and partial oxygen pressure), then they were subjected to a 20-minute guided meditation and a second vital sign was taken. After this, the results were analyzed and discussed in order to arrive at conclusions.

The data were processed in a digital database created in the Excel software of the Microsoft Office 2010 platform, on a Hewlett-Packard laptop. The data processing was carried out on the same technological platform. In the descriptive statistical analysis, central tendency measures such as the mean and percentages were used as synthesis parameters. In order to illustrate the main results obtained, tables and graphs were used to present the data on which the results of the study were delimited in a transparent manner.

This study was designed and carried out in strict compliance with the ethical principles that govern research. Compliance with articles 5, 20, 21, 22 and 25 of the Declaration of Helsinki was ensured. Informed consent was requested from all patients involved, which was recorded in writing. The confidentiality of the data in the records was safeguarded by the use of a numerical code that represented the identification of each patient. The name under each code was known only to the principal investigator. The research was approved by the ethics committee of the Faculty of Medicine No. 1.

## RESULTS

**Table 1** shows that of the 25 patients who participated in the research, males represented 68 % (n=17) and females 32 % (n=8). The age range with the highest representation in males was 70 to 84 years old with 44 % and in the case of women it was 60 to 69 years old with 16 %.

**Table 1:** Distribution by age and sex of patients at the America Labadie Nursing Home in January 2023

Age	Male	Female	Total
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	n	%	N	%	n	%
65-69	4	16	4	16	8	32
70-84	11	44	3	12	14	56
85 and over	2	8	1	4	3	12
<b>Total</b>	17	68	8	32	25	100

Source: database prepared.

Table 2 shows that most of the population had 8 hours of free time per day, which represented 72% (n=18) and of these patients with 8 hours of free time per day, only 40% (n=10) rated their mental health as good. 40% (n=10) of the patients rated their mental health as average, although n=6 of these had 8 hours of free time.

**Table 2:** Distribution of the mental health rating of patients according to the amount of free time they have

Amount of Free Time	Mental Health Assessment of Older Adults						Total	
	B		R		M			
	n	%	N	%	n	%	n	%
2 h	1	4	0	0	0	0	1	4
4 h	2	8	3	12	0	0	5	20
6 h	0	0	1	4	0	0	1	4
8 h	10	40	6	24	2	8	18	72
<b>Total</b>	13	52	10	40	2	8	25	100

\* Legend: B: Good, R: Average, M: Bad

Table 3 shows that 52 % (13) of the patients rated their general health as average, although 32 % (n=8) of them had 8 hours of free time per day 40



% (n=10) of the patients rated their general health as good, and only 8 % (n=2) reported having a poor general health.

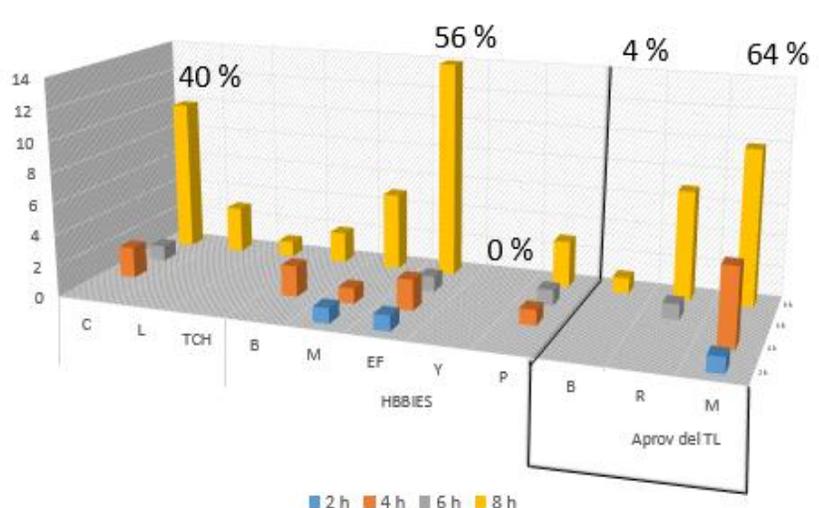
**Table 3:** Distribution of the patients' general health ratings according to the amount of free time they have

Amount of Free Time	Assessment of the Elderly on their General Health						Total	
	B		R		M			
	n	%	n	%	N	%	n	%
2 h	1	4	0	0	0	0	1	4
4 h	0	0	4	16	1	4	5	20
6 h	0	0	1	4	0	0	1	4
8 h	9	36	8	32	1	4	18	72
<b>Total</b>	10	40	13	52	2	8	25	100

\* **Legend:** B: Good, R: Average, M: Bad

Chart No. 1 represents how free time behaved according to the variables that analyzed it. It shows that 72 % (n=25) of the population studied enjoys 8 hours of free time per day. They were surveyed about the possible hobbies they practiced, namely: walks, walks with friends, Thai Chi, Yoga, physical exercise, meditation, reading and dance therapy; confirming that the practice of physical exercise and walks predominated with 56 % and 40 % respectively, however no individual practices yoga. In addition, the group of authors, based on the activities that the patients performed in their free time, assessed the use of free time by these people, showing that the largest percentage of the population (64 %) shows a poor use of their free time and only 4 % of this had a good use of their free time.

**Chart 1.** Representation of the distribution of free time according to variables studied



**Legend:** (C) walks (P) walks with friends (TCH) Thai Chi (Y) Yoga (EF) physical exercise (M) meditation (L) reading (B) dance therapy (Apro TL) Taking advantage of free time.

Table No. 4 reflects the positive effect of meditation on physiological variables (pulse and oximetry) which in other words reflects that this technique is capable of attenuating stress and modulating the expression of these variables, coinciding with the results of the authors with those of Marrison 13 and collaborators who stated that the incorporation of active meditation in their study population decreased their physical and psycho-emotional indicators of stress.

**Table No. 4.** Distribution of pulse and oximetry values before and after the meditation exercise according to age

Age	Pulse		Oximetry	
	After	Before	After	Before
	X	X	X	X
65-69	68,7	62,2	95,75	96,3
70-84	65,5	68,4	96,21	97,57
85 y más	63,6	67	94	96

\* **Legend:** X: Medium.

## DISCUSSION

In this study, the predominance of the male sex was observed, as well as the age range of 70 to 84 years, data that are similar to the study carried out by Beceras Canale et al <sup>(8)</sup>, where the greatest representation in the study was the male sex and the elderly over 70 years old.

Most of the patients had 8 hours of free time per day, this does not mean a better state of health, on the contrary, in their case this could represent a negative stressor, since they did not feel useful and did not know how to use it.

This agrees with the data referred to by Sharif et al <sup>(9)</sup>; and Mika Kivimäki et al <sup>(10)</sup>, when stating that whether you have little or a lot of free time, it is important to know how to manage it to avoid some of the associated health problems, such as stress, anxiety, depression, etc.

The meditation technique was applied in order to contribute to improving their health, seeking to attenuate their stress and provide them with this tool to counteract their excess of free time. These elements coincide with what was stated by Jiménez Serrano <sup>(11)</sup> who expressed: "meditation has been shown to provide great benefits for health (mental, emotional and physical)". Likewise, it coincides with other authors such as Silveria Días <sup>(12)</sup> who affirms that the results obtained support, in general terms, the benefits of meditation practice activities.

It was shown that the majority of the population under study enjoys 8 hours of free time, which represents an excess for them. In addition, it was found that a large percentage of these people show poor use of their free time, which represents a stress factor for their health, of which they have no perception.

These findings coincide with what Rodríguez et al <sup>(1)</sup> suggests, and also say that this could negatively influence their health status, causing decompensation and worsening of their underlying chronic diseases, as well as causing depressive disorders to emerge, which are typical when the patient does not feel useful to society.

It was observed that the pulse had a tendency to increase in most patients, a fact that does not coincide with what Fernando et al <sup>(14)</sup> stated, since in their research they state that: it was found that training with guided meditation was effective in decreasing stress levels and pulse in most practitioners of the technique.



The authors of this paper do not disagree entirely with this criterion since the applied technique does decrease stress, only that being novice practitioners of the technique and having applied it only for 20 min, the vital signs are taken in the midst of the physiological euphoria of the organism, so in some patients it may be increased.

The results of Reyes Luna <sup>(15)</sup> are consistent, who states that with the required accompaniment and the use of the technique, it is possible to reduce the levels of anxiety in the patient and that by verifying with physiological variables such as pulse oximetry, one can see the increase of this in response to the relaxation experienced by the subject, a fact with which the research team agrees.

This paper aims to contribute to the provision of scientific evidence that validates the use of meditation in centers of this type where it is not yet implemented, thus offering our elderly another tool for the enjoyment of their free time.

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## CONCLUSIONS

Meditation is a tool capable of alleviating the stress of a person generated by excess free time, since it positively stimulates our organism by providing it with techniques to use its time. That is why the modification of physiological variables demonstrates the impact of meditation on these, which shows its contribution to alleviating stress in the elderly.

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## AUTHORSHIP CONTRIBUTION

**CCC:** conceptualization, formal analysis, investigation, methodology, visualization, writing-original draft, writing-review and editing.

**AGS:** conceptualization, formal analysis, investigation, methodology, visualization, writing-original draft, writing-review and editing.

**RMBA:** conceptualization, formal analysis, investigation, methodology, visualization, writing-original draft, writing-review and editing.

**SHCL:** conceptualization, formal analysis, investigation, methodology, visualization, writing-original draft, writing-review and editing.

## CONFLICT OF INTERESTS

The authors declare that they have no conflicts of interest.

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