

## STUDY ON THE COMBATEMENT OF STRESS BY KINETOTHERAPY MEANS

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**Keywords:** *kinethotherapy, problem, stress.*

**Abstract:** I have chosen to deepen this theme because I believe that the world in which we live is becoming stronger and a serious problem in all points of view. Any activity carried out in everyday life causes stress which leads to the disease of the population and an increase in mortality rates.

Stress can cause different conditions, such as: gastritis (inflammation of the stomach wall), ulcer (wound on the stomach), HTA- Hypertension, Diabetes, arteriosclerosis (fat on the walls of the arteries), AVC (stroke), Hyperthyroidism (increase in thyroid volume), nervous system can cause Alzheimer's (memory loss), sensory disorders: visual and clogged ear disorders, dermatological conditions (acne, itching, etc)[4].

### Introduction

Stress, also called "*invisible disease or modern disease*" is defined as a factor that can destroy both a person's mental health and physical health and occurs when the human body is asked much more than it can normally provide [1,2].

The general causes of stress are diverse but the most important are unexpected changes, transmission of information in front of a large collective of people, lack of organisation and inability to manage time, responsibilities, lack of coordination, non-compliance with rules, financial situation, pressure performed even by family members[5].

Stress in low doses is necessary because it gives us the impetus to overcome certain situations. Self-confidence is essential because it helps us get through everything that upsets and disturbs us. The questionnaire method is a very often used one and is the safest method by which we can find out about what level of stress a particular person is subjected to. When completing a questionnaire the person must be honest and check in the box that has the answer as close as possible to what he feels and

how stress works in his life [3]. The questionnaire is very helpful when we want to find out our stress levels.

### **Material and method**

#### **Research hypotheses**

- 1.Can stress be lessened by the means of kinetotherapy?
- 2.Using the means of kinetotherapy can improve the quality of life?
- 3.The individual can reintegrate into society using kinetotherapy-specific exercises?

The purpose of this work is to verify the assumptions and on the basis of the study to contribute to the efficiency of the program.

I propose that after the kinetotherapy program, the person I work with becomes more confident, stronger, regains self-confidence, to be more ambitious and determined.


#### **ORGANIZATION OF RESEARCH**

##### **Topic**

Name: V, First name: V, Age: 18 Years, Sex: Female, Occupation: pupil  
KINETOTHERAPY RECOVERY PROGRAM

The location of the physiotherapy program took place at the swimming and physiotherapy complex in the building "K" of Stefan cel Mare University in Suceava and at the subject's home. The materials that assisted in carrying out the exercises were: ball, swimming raft, string and of course the appropriate equipment of the subject.

TABLE 1 Questionnaire for the initial assessment of the subject.

		
	I.T	F.T
1. Do things around you bother you?	4	1
2. Do you often feel tired or exhausted without a special reason?	5	2
3. Are you always in a hurry?	3	2
4. Do you get dizziness every day?	4	1
5. Does your head frequently hurt because of the tension accumulated on the day's parous?	5	3
6. Do you often end up arguing with various people?	2	1
7. Are you having trouble concentrating on what you have to do?	5	2
8. Is your mood of life affected?	4	2
9. Do you have insomnia?	3	1
10. Do you blame yourself if things don't go well in everyday life?	5	2
11. When you're tense, do you notice any negative changes in your behavior?	5	2
12. Do you feel bad if a person doesn't feel good about you?	5	3
13. Do you take on too many tasks at the same time?	4	1
14. Are you avoiding saying what's on your mind to others?	5	2
15. Do you feel unappreciated by those around you?	5	2
16. Are you an easily influenced person?	4	2
17. Is your sleep affected when you know that the next day you have something important to do?	5	3
18. When you feel constrained by certain responsibilities, do you eat a lot?	3	2
19. Do you sweat a lot?	3	2
20. Does the disputes around you affect you a lot?	4	3

This physiotherapy-specific exercise program is developed over a three-month period (February, March, April 2018), being structured twice a week on Mondays and Thursdays under my supervision, and on

Tuesdays and Fridays, the subject working alone (30-40 minutes session).

### ***Schedule for February***

Warming of body segments:

- heating of the head and neck: flexion, extension, left, right lateral inclinations, rotations and semi-rotations of the head;
- heating of the upper limbs: bringing the arms up, on the shoulders, to the side, down, flexion and extension of the arms, alternative and simultaneous rotations of the arms in different directions;
- torso heating: torso bends and bends, torso rotations to the left and right;
- heating of the lower limbs: knee rotations simultaneously, squats;
- ankle heating: alternate ankle rotations to the left and right.

### **Exercises:**

**Breathing exercises** - in the first and second weeks of February.

1. The subject sat on his knees (sitting on his heels), takes a deep breath while maintaining 5 seconds, then exhales. Repeat 5 times with 20-second breaks.

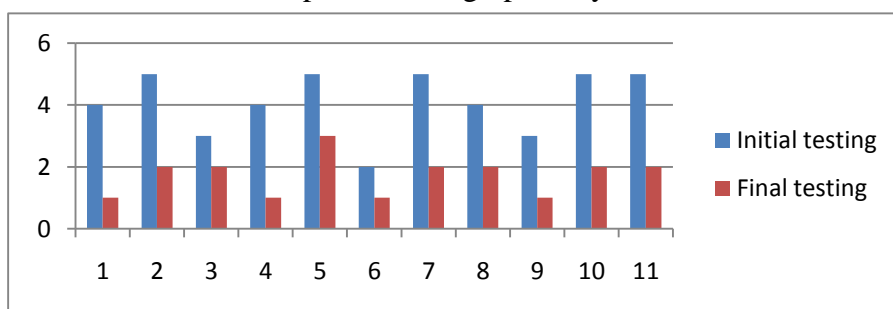
The subject seated on his knees with his arms near his body, inspires simultaneously with the carrying of his arms to the side. When I exhale, the arms come back around the body. This exercise is repeated 5 times with a 10-second pause.

Following the 3-month physiotherapeutic program (February, March, April 2018), we obtained the final results.

I applied the same questionnaire and took the blood pressure.

### **Graphical data processing**

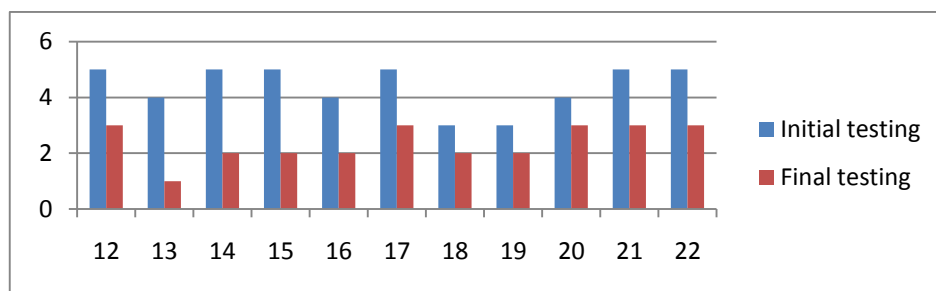
Following the application of the physiotherapeutic program to combat stress, the results obtained from the initial evaluation and the final evaluation, we interpreted them graphically.



GRAPHIC 1 Initial evaluation and final evaluation of the first eleven questions of the questionnaire.

As we can see in the graph above (Figure 1) of the first eleven questions in the questionnaire applied to find out the stress level of the subject, there is a noticeable decrease in points namely:

- For question 1 of the questionnaire(*Are you bothering the things around you?*), we have a decrease of 3 **points**, which means an improvement in stress levels.
- For question 2 of the questionnaire (*Do you often feel tired or exhausted without a special reason?*), we have a decrease of 3 **points**, which means an improvement in stress.
- For question 3 of the questionnaire (*Are you always in a hurry?*), we have a decrease of 1 **point**, which signifies a decrease in stress levels.
- For question 4 of the questionnaire(*Do you have dizziness daily?*), we have a decrease of 3 **points**, which means an improvement in stress.
- For question 5 of the questionnaire(*Do you frequently have a headache due to the accumulated tension throughout the day?*), we have a decrease of 2 **points**, which means an improvement in stress levels.
- For question 6 of the questionnaire(*Do you frequently get to argue with different people?*), we have a decrease of 1 **point**, which means a reduced level of stress.
- For question 7 of the questionnaire (*Do you have difficulty concentrating on what you have to do?*), we have a decrease of 3 **points**, which means a reduced stress.
- For question 8 of the questionnaire(*Is your life binge affected?*), we have a 2-point decrease, 2 **points** which means a noticeable improvement in stress levels.
- For question 9 of the questionnaire(*Do you have insomnia?*), we have a decrease of 2 **points**, which shows that the stress level is much low.
- For question 10 of the questionnaire(*Do you blame yourself if things go wrong in everyday life?*), we have a decrease of 3 **points**, we see an improvement in stress levels.
- For question 11 of the questionnaire(*When you are tense, do you notice negative changes in your behavior?*), we have a decrease of 3 **points**, we see a decrease in stress.



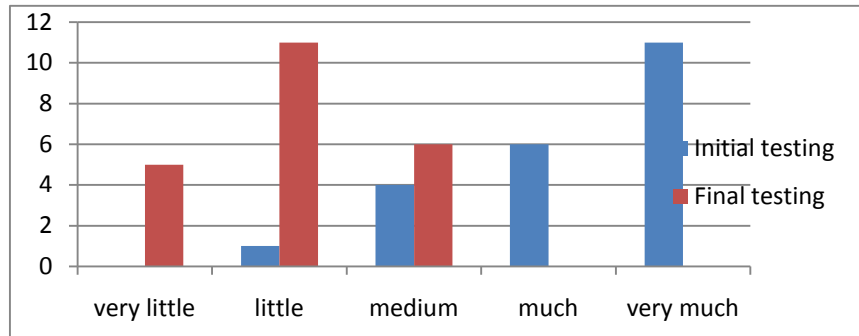
GRAPHIC 2 Initial evaluation and final evaluation of the following eleven questions in the questionnaire.

As we can see from the figure above (Figure 2) of the last eleven questions in the questionnaire applied to be able to see the level of decrease in the subject's stress, the results obtained are:

- For question 12 of the questionnaire (*Do you feel sick if a person doesn't have a good opinion of you?*), we have a decrease of 2 **points**, resulting in a decrease in the subject stress.
- For question 13 of the questionnaire (*Do you take on too many tasks at the same time?*), we have a decrease of 3 **points**, which means an improvement in stress levels.
- For the 14th of the questionnaire (*Do you want to say what you have on your mind to others?*), we have a decrease of 3 **points**, which means an improvement in the subject's stress.
- For question 15 of the questionnaire (*Do you feel unappreciated by those around you?*), we have a decrease of 3 **points**, which means that the patient's stress level has been visibly decreased.
- For question 16 of the questionnaire (*Are you an influenceable person?*), we have a decrease of 2 **points**, which shows us that the stress level has been improved.
- For question 17 of the questionnaire (*Is your sleep affected when you know that the next day you have something important to do?*), we have a decrease of 2 **points**, resulting in improved stress levels.
- For question 18 of the questionnaire (*When do you feel constrained by certain responsibilities, do you eat a lot?*), we have a decrease of 1 **point**, which means a decrease in the force of stress.
- For question 19 of the questionnaire (*Sweat a lot?*), we have a decrease of 1 **point**, which means a decreased level of stress.
- For question 20 of the questionnaire (*Do the disputes around you affect you?*), we have a decrease of 1 **point**, which means a significant improvement.

• For question 21 of the questionnaire: *When you're not in a good mood, do you speak in a high tone?*), we have a decrease of 2 **points**, which means an improvement in the stress level of the subject.

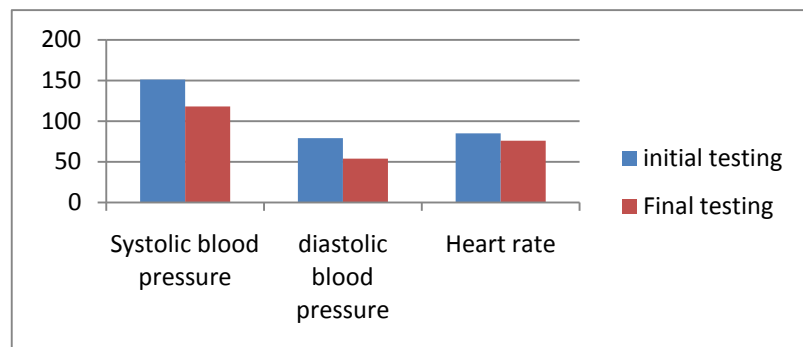
• For question 22 of the questionnaire (*Are you worried about the future?*) , we have a decrease of 2 **points**, causing a decrease in the stress of the subject.



GRAPHIC 3 Initial assessment and final assessment of the number of responses 1(very little), 2(little), 3(medium), 4(much), 5(very much). Interpretation of the values in Figure 3 are shown in Table 2 below:

TABLE 2 Comparison between the responses in the initial assessment and the responses in the final evaluation.

INITIAL ASSESSMENT		FINAL ASSESSMENT	
Scale	Responses	Scale	Responses
1	0 responses	1	5 responses
2	1 Response	2	11 Responses
3	4 Responses	3	6 Responses
4	6 Responses	4	0 Responses
5	11 Responses	5	0 Responses



#### GRAPHIC 4 Blood pressure and heart rate values in initial and final assessment.

In the graph above (Figure 4) we see the initial and final values of blood pressure and heart rate that were:  $BP=151/79mmHg$  (initial value),  $BP=118/54mmHg$  (final value), and  $HR=85$  beats/minute (initial value),  $HR=76$  beats/minute (final value). There is a decrease in both blood pressure and heart rate, which means better functionality of the heart and respiratory system under stress.

#### Conclusions

1. Following the study, the hypotheses were verified.
2. With the help of the exercises used in the physiotherapy program, the stress of the subject has been reduced, and it copes more easily with new situations.
3. The quality of life is visibly improved, the subject being extremely pleased with the help given.
4. Reintegration into society was made easy as a result of the programme applied and communication with others became it's a strong point.
5. After the 3 months of exercises carried out to combat stress, seeing an improvement, the subject wants to continue this program and is really eager to propose to him other exercises to perform exactly.

#### Proposals

1. I propose to continue exercising, especially those of breathing that must be done every morning, because they are very beneficial for everyone.
2. Continue to communicate as much as possible and meet new people.

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