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The Efficiency Of Physical Therapy Associated With Psychotherapy In The Treatment Of Generalized Anxiety

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Abstract

A complex treatment which associates psychotherapy which are cognitive and behaviour therapy with means of physical therapy is the best option for the anxious individual. The kinesiology methods (individualized exercise, stretching, breathing exercises, jogging) or playing a sport that pleases the patient should clearly contribute to the improvement of the patient's state, giving higher self-confidence and a well-being state. This study tries to highlight the role of psychotherapy and physical exercise in the treatment of generalized anxiety to adults and to establish the most effective means kinetic (multi-joint and respiratory exercise, stretching, jogging) which associated with cognitive and behaviour psychotherapy ensures the improvement of the individual's psychosomatic manifestations. This research is organized as a longitudinal study on a group of 20 subjects diagnosed with generalized anxiety disorder, aged 45-55 years. The tested parameters have pursued functional balance (pulse, blood pressure, respiratory rate and resting muscle tonus) and on the other hand psychological tonus (work performance, anxiety based on QIA questionnaire, fatigue based FSI questionnaire, sleep disorders and anxiety based Beck inventory (BAI).

Keywords: generalized anxiety, cognitive and behavioural psychotherapy, and kinetic means;

1. Introduction

The reflectors comprehensive system phenomena of reality, human psychic adjusts the behavior in correlation to social and material conditions of the subject’s life. Through reception, processing and interpretation, the psyche conducts the behavior towards ensuring an active balance with the environment. The man's psychic life becomes the expression of unity between subjective phenomena and their behaviors (Tüdöş, 2001). Requiring, then repeating a
large number and a variety of motor actions, brings a positive effect by helping to organize the system through the gradual introduction of information ("small steps") and by increasing energy support.

Social, political, and organic changes have a psycho-physical echo more or less, depending on the individual's psychic structure. They can be based on a sense of danger, alert status with the inability to act. All this leads to an activity disruption having repercussions of psychic and functional sphere. Virtually any object or situation can cause anxiety. In today's society, characterized by the existence of a large number of stress factors and rapid changes at all levels, the growth rate of anxiety among the population is self explanatory (Enăchescu, 2000).

Anxiety predisposes to distraction from an activity in progress, to a decrease yield of actions, and generates real problems in family, social and professional plateau. A large part of memory is "occupied" with intruding thoughts of anxiety and fear and becomes no longer available for the real cognitive-behavioral purpose. Anxious patients avoid physical activity not because they cannot perform, but because this produces the feelings of fears. So some personal resources are lost in the name of the intended purpose (Gelder, Gath and Mayou, 1994).

We believe that a complex recovery program with methods corroborating psychotherapy (cognitive behavioral therapy) with drugs and kinetics means may ensure a good quality of therapeutic act. Kinetic means (exercise, massage, relaxation, breathing exercises, practicing a sport that pleased the patient) contribute to somatic relieving symptoms, giving self-confidence and well-being. All these are important conditions for a rapid recovery and an appropriate family and socio-professional reintegration (Bratu, 2011).

1.1. Purpose of study

This research aims to highlight the effective means that can act in the case of the anxious patient through the personal experience. The combination of psychotherapy (cognitive and behavioral therapy) with physical-kinetic means in the treatment of generalized anxiety leads to an increased efficiency of the therapeutic act, demonstrated by improving the individual's psychosomatic disorders and the rise of functional parameters values, therefore improving of "the well-being" state. All this has a positive impact on the body, on one's personality and especially over personal social life this way leading to an appropriate adaptation to family, social and professional reintegration.

1.2. Methods

The research was organized as a study on a lot of 20 patients diagnosed with anxiety disorders (generalized anxiety disorder), aged between 45-55 years old and without associated pathologies. The group of the subjects is homogeneous in terms of psychosomatic manifestations.

The subjects received weekly psychotherapy (CBT program), 12 sessions with therapeutic tasks mutually agreed at the end of each meeting, (Ionescu, 1995) and doubled by kinetic program using the following algorithm:

- In the morning (30 min.) multi-joint exercise 10 minutes, breathing exercises 10 minutes and stretching 10 minutes.
- In the evening - at 18.00 kinetic program (30-45 min.) composed by multi-joint exercise 3-5 minutes, jogging 15-25 minutes, stretching 5 minutes and breathing exercises 7-10 minutes.

We have to mention that when designing the programs it was ensured that it respects the progressive and individualization principle based on the patient’s effort capacity, on their biological response and on their availabilities at runtime.

The tests followed the evaluation of the functional balance through resting heart rate; arterial pressure, respiratory rate and rest muscle tone (in the trapezoid muscles). Basal pulse was measured 3 consecutive days (in the morning) the average value being recorded. The functional parameters were recorded at different times of the day through the active and conscious participation of the subject in eliminating a possible development of misfits’ reactions of the subject to the examination. Psycho-emotional status was assessed by the Hamilton Inventory Anxiety, Leahy Inventory Anxiety and by sleep quality on a scale of 0 to 10.

Three tests were carried out: initial, intermediate (after 6 weeks) and final (after 12 weeks). The recorded values have been reported to the literature values. It was felt that the initial testing provided reference data for further
testing and for establishing basic programs (structure, association, iteration, dosage) adapted to each patient so as to allow them carried out and not to be a stress factor.

The intermediary tests appreciated the biological answer to the effort in order to readjust the availabilities of the patient at the runtime. The final tests were performed after 12 weeks, at time that it was expected that the functional status of the subjects would allow them the reintegration into family and socio-professional activity.

2. Results

The values recorded in the initial testing for heart rate and blood pressure (Fig.1) showed the existence of significant variables from the average considered normal (physiological). Thus, the pulse has values between 70 beats/minute to 91 beats/minute (mean 87,3 beats/minute), which shows the presence of the tachycardia (66%). The values for systolic blood pressure are between 100 mmHg and 190 mmHg (average 155 mmHg) and for diastolic blood pressure between 60 mmHg and 120 mmHg, with an average of 87 mmHg showing high blood pressure direct consequence of the patient’s stress state.

![Fig. 1. Initial test values for heart rate and blood pressure](image)

Respiratory rate (tachypnea - rapid and shallow breathing) recorded values between 17 and breaths/ minute with an average of 21,85 breaths/minute, is increased from the physiological rest data, highlighting the phenomenon of hyperventilation. Resting muscle tone is increased by 22,16% compared to normal values, with values between 72 us and 99 us, revealing a state of muscle tightness that illustrates the anxiety felt by the patient (Fig 2). The values coincide with the literature’ data, which emphasizes the existence of the relationship between anxiety and functional cardio-respiratory changes in their upside.

![Fig. 2. Initial test values for respiratory rate and muscle tone at rest](image)
The tests for assessing anxiety scores are high for both the global index, caught in chart 3 as well as on the subscales; the results for both questionnaires are related. Hamilton recorded test values are between 38 and 53 with an average of 42.9, and Leahy test between 36 and 54 with an average of 43.3. This data validates the diagnosis of anxiety disorder (generalized anxiety disorder) (Smith, Sell and Sudbury, 1996) based on which the subjects were included in this study.

![Fig. 3. Initial testing values and Leahy Hamilton Anxiety Inventory Anxiety Inventory](image)

After the intermediate tests observed better adapt to the requirements of the subjects to the effort, an improvement in exercise capacity, a better psychophysical condition and a decrease of wasting energy with efficiency of the motor act. They are in a better overall functionality, appearance that is found in the journal of self-control.

Final testing shows values of heart rate improved to 15.08% in the study group with an average number of 73.55 beats/minute for values between 66 beats/minute and 84 beats/minute. Blood pressure evolved as follows: systolic blood pressure decreased by 3.33%, with values between 110 mmHg diastolic and 160 mmHg and diastolic pressure by 1.5%, with values between 65 mmHg and 100 mmHg, modifications justified by physiological implications of cardiovascular function. (Fig. 4)

![Fig. 4. Final test values for heart rate and blood pressure](image)

Respiratory rate improved significantly to reaching an average of 17.3 breaths/ minute like the rest muscle tone (values between 52 us and 72 us) which decreased significantly (by 13.67%) getting closer to the rest physiological...
values. [6] These results coincide with the data recorded at Hamilton Anxiety Inventory and Leahy Anxiety Inventory as well as with self control journal.

Fig. 5. Final test values for respiratory rate and muscle tone at rest

3. Conclusions

For patients with anxiety disorders (generalized anxiety), the combination of psychotherapy (CBT program) with physical-kinetic means constitutes a correct option in the complex treatment providing an increased therapeutic efficiency evidenced by improving functional indicators, by improving the "wellbeing" state with positive impact on overall functioning of the body and on person’s social life.

Anxious patients have a low tolerance to effort due to associated psychosomatic disorders and to physiological phenomena imposed by physical activity. In this context, a correct instruction is necessary individualizing and grading effort according to progressivity principle and to the patient’ availabilities of the moment.

The association of kinetic means to the classic anxiety treatment causes a psychosomatic rebalance that allows an optimal adaptation of it to family, social and professional environment.

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