

FITBALL, A MULTIFUNCTIONAL PROGRAM FOR POSTURE CORRECTION AND SPECIFIC TRAINING

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Abstract: *The enforcement of the Fitball program involves the dynamic action of the ball which, with every movement, it "wraps" all the body parts connected to it, constraints the body's proprioceptive receptors to activate in order to determine the muscle contractions needed in order to compensate the unexpected variations of the body's position in space and to always maintain it in balance. This feature of the Fitball program is also valuable as training for several sports disciplines (i.e.: artistic gymnastics, skiing, skating, canoeing, dancing and all other sports which provide flying stages), which require fast reaction to the changes of the centre of gravity.*

Key words: *Fitball programme, motric skills, fitball benefits.*

1. Introduction

There is no doubt that this century speeded-up the life of the entire modern society, forcing the people to a higher daily movability, nevertheless it paradoxically immobilized them in front of the same technological processes created by themselves, thus weakening not only their motric skills, but also the functional ones, as well as their health. Fitness ball has no contraindications, but how can a discipline which was born in the 30s within hospital units have contraindications? In fact, this wonderful discipline was created in Germany, at the express request of a medical scientific board, in order to be able to recover some patients following surgical interventions, as well as to take care of

patients with problems at the level of the spine (back), knee-joint, hips and ankles. Over the past few years, in Switzerland, the Ministry of Education gradually replaced the chairs in all the primary schools from the German and French Cantons, with giant balls provided with four tiny legs. At the same time, numerous international bodies and institutions started a prevention and nursing program using balls. Some results of these choices have already manifested: controlling the various problems of the back, such as type 4 scoliosis, starting from an early age, stimulating the young to have a physically active life and even improving the attention during the class activities; in fact, the ball forces to a certain physical behaviour which is correct and healthy for

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everyone. Finally, A.O.K., the German insurance institution, offers as a gift to all the persons registered and preparing to retire, a ball accompanied by a videotape and a text presenting a program for maintaining and preserving the health, to be executed with a daily frequency [4], [7], [8].

2. The Fitball Program

Fitball program is based on the concept of returning pressure, deriving from our own body weight, under the form of energy, allowing the bone structure and the muscles to work almost in the absence of gravity. This way, joints can move free from the body weight, decreasing the injury risk, wrong requests or by reducing the simple back pain [2-3].

Fitball benefits are not limited to the correction of a wrong postural position, but it is also fit for valuable training: In all those disciplines (dancing, skiing, skating, artistic gymnastics) where of paramount importance is the development of the muscles' reaction to an unexpected change of the center of gravity: stretching or sitting on the ball, following its movements results to be an optimum exercise. From physical therapy to aerobics, from the specific training to pure entertainment, fitball convinced the professionals and please imagine that the Swiss Ministry of Health replaced the chairs in some primary schools with this therapeutic and fun rubber ball! In all those disciplines (dancing, skiing, skating, artistic gymnastics) where of paramount importance is the development of the muscles' reaction to an unexpected change of the center of gravity: stretching or sitting on the ball, following its movements results to be an optimum exercise [1], [5], [6].

3. The Experimental Research

The purpose of the proposed pedagogical experiment consists in the control of the various back problems by strengthening the supporting muscles, even from the beginning of the Fitball training.

Fitball Program succesfully incorporates the cardio-vascular training for articular mobility, elongation and relaxation of the entire body; it is used with sedentary persons affected by stress, articular rigidity and overweight, over 50, in order to prevent illnesses, nevertheless it is especially used in the training of balance, rolling and preacrobatic positions which are sought in numerous sports (artistic and rhythmical gymnastics, dancing, skiing, canoeing, surfing, free climbing, artistic skating etc.) [9], [10].

The research sample consisted of 16 persons, females, of an age comprised between 25 to 50 years old. The participants wanted to practice the Fitball program so as to maintain their health, to correct their posture and to improve their physical qualities.

The experiment unfolded within the WePlay Recreational Centre, the sports program being held 2 times a week in 60-minute sessions. Diversified training programs were applied to these sessions with common purposes aimed at strengthening the supporting muscles.

The training was based on the trainer's technique who, through active participation, applied the key points for the development of the program.

Trainer's profile:

- knowledge of the physiological and kinesiological principles.
- custom approach during the training session.
- general basic knowledge for plantar reflexology.
- adequate suggestions for the prevention of accidents.

- perfect execution, body alignment and control.

Verbal suggestions:

The use of verbal suggestions in order to anticipate information, communicating with the students when:

- The work plan is changed.
- The muscle group is changed.
- For motivation during "Stretching".
- In order to pay attention to the correct execution of exercises.

Visual suggestions:

- Perform correctly all the proposed exercises.
- Face-to-face (mirror) demonstrations.
- Always use the technique "show correct exercise and wrong exercise".
- Make use of facial expressions.

Communication with the class:

- Technical orientation prior to and after the lesson.
- Activity introduction and presentation.
- Information upon the main purpose of the lesson.
- Information upon the main individual purpose.
- Cheering and praising the entire class.
- Strengthening the safety measures.
- Dialogue upon the type of exercises in order to receive an improved feedback.

During the training programs and based on the protocols completed by the participants, their evolution showed a considerable progress of the training, as follows:

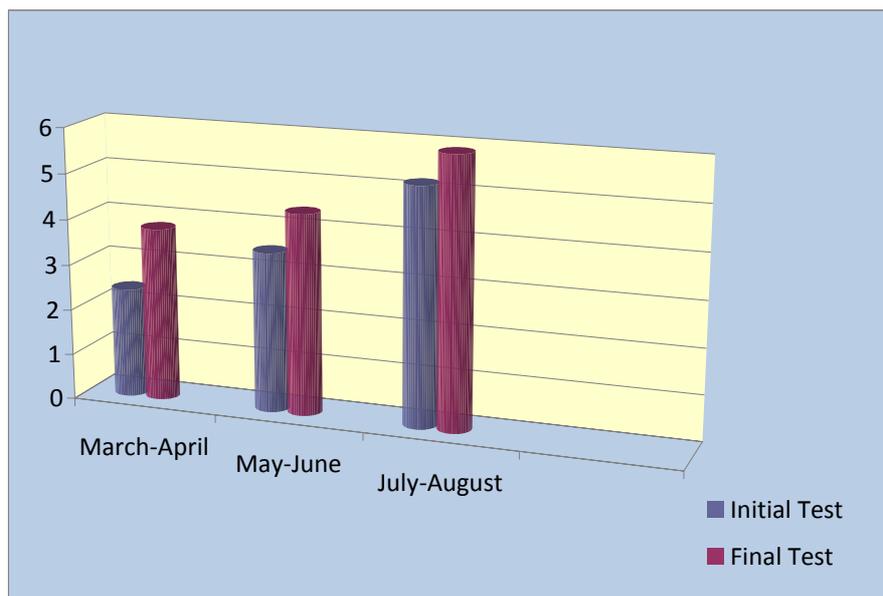


Fig. 1. *Training progress*

Based on the same observation protocols, it was noticed that the considerable evolution was owed to the qualitative involvement of the trainer, as the trainer has an important role to raise the interest of the participants in the Fitball program.

Thus, there were positive observations in the training parameters on the emotional factor, involving the trainer's active support, the technical and psychological support.

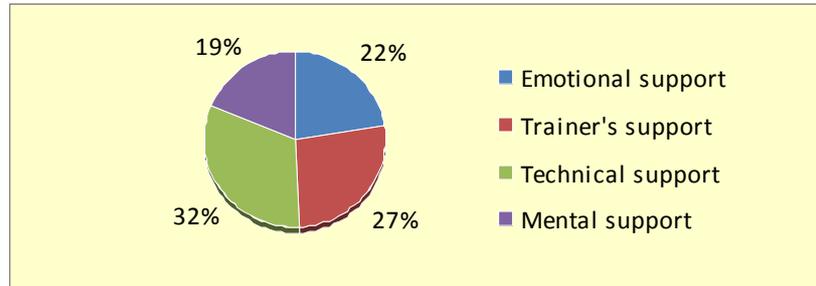


Fig. 2. *Training parameters*

4. Conclusions

The applied fitball program eventually led us to draw the following **conclusions**:

1. The systematic and assisted practicing of the proposed actuation systems led to the improvement of the subjects' health condition.
2. The correct application of the Fitball programs into practice led to the improvement of the anterior and posterior lumbar mobility, it decreased articular rigidity.
3. The correct execution of the actuating systems by following the trainer's indications led to the improvement of the subjects' articular mobility and of the abdominal strength indicators.

5. Proposals

Following the above-mentioned conclusions, the following **proposals** are imposed:

1. To recommend the Fitball program to be applied into practice within all centres for the improvement and maintenance of the health condition.
2. To recommend the Fitball programs within any sports centres, in order to develop the aerobic capacity in athletes.

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