

The impact of physical training program to improve the capacity of some motor skills and heart rate in elderly person

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Abstract-The deterioration in health functions is characteristic in elderly person (EP) and may be associated with decline in daily living activities with consequent reduced quality of life. The aim of this study was to analyze training program effects on health functions in elderly with Subjects. 34 elderly mean took part in this study and were allocated into two separated groups: Training Group (TG) and Social Gathering Group (SGG). The global physical health cognitive status was determined using some tests. The protocols were performed three times a week, one hour per session. Physical training protocol consisted of three sets of 20 repetitions, with two minutes of rest between sets and exercises. The activities proposed for the SGG aimed at promoting social interaction among patients. The Results: showed a significant difference associated to the effects of the practice of physical training on health elderly person. In conclusion, the improvement in physical health functions was evident in elderly with EP who followed a low intensity exercise protocol.

Index Terms: Physical health, resistance, elderly person, social integration, skills

I-INTRODUCTION

Hardly pass a short time until we find a scientific research came new in the benefits of exercise on human health (Shang, 2013). So we see when regularity rights to exercise some kind of orderly movement such as walking, swimming or running and the subsequent activity occurs in all organs of the body until it reaches this man after (Hajian-Tilaki KO, 2007). A few months to the stage becomes the level of efficiency devices more body strength and vitality which gives him the ability and activity more than any other, where increasing has estimated kinetic shall be work performed or exercise habit for more affordable and easily, this evolution and differences disparate level between individuals. However the number hours that used to exercise practiced as well as the number of years that have passed since he began sports (Sugiura, 2013; Hedman, 2013). In the Western societies that share sport and physical activity significant in human life and necessities inevitable daily habit for rights, we find an hour of sports training is sacred in these communities because they realized it is one of the basics of a happy life that qualifies them to continue to live physical easier for them to practice their requirements daily (Hedman, 2013). Because researcher one immigrants moving to Sweden recently, along with large numbers of immigrants and the various nationalities who are not used to doing physical activity in their countries on an ongoing basis and to be defined "Btabaa Swedish society", as well as introduce them to the importance of practicing the exercise was a training curriculum for age group specific (50-65 years) makes them willing to abide by the physical activity in cooperation with municipality "Norashwbenk". Hence the importance of research in the introduction of older immigrants in a sports training session working to motivate them and make them more vigor and vitality than before and for them to develop their abilities physical ability and kinetic capacity .

Immigration to Sweden from different communities have made Sweden a microcosm and different cultures, but the government remains working on the integration of new immigrants into the community and the original work on introducing them to their customs and traditions, and most important of these habits are practicing a sport that is characterized by the Swedish

people, so we see its personnel active and vital throughout today and see its opposite of immigrants (Gillespie, 2001). To address the problem of our research that foreigners seem less movement and activity and almost their abilities kinetic be very limited, especially at older ages, so sought researcher and cooperation with the Municipality "Norashwbenk" in the implementation of training curriculum simplified set of older men (50-65 years) to motivate them to practice aerobics kinetic and activate their abilities and their computer physiological and this is in the best interest of the health and psychological and therefore in the interest of the new society in which they engaged. Thus, the objective of this work was to identify the impact of the training program on some physical kinetic characteristics and heart rate, indeed the hypotheses was the training program has a significant impact in the development of some kinetic characteristics under study and heart rate on a sample search.

II-METHODOLOGY

Experimental approach to the problem

The researcher chose the experimental method style of one set of relevance in solving the problem of search, "where is the most adequate means to get to know the reliable. However the human sphere was the new immigrants to Sweden and men Reconstruction (50 – 65 years). The temporal research domain was for the period between 7/5/2008 and 7/7/2008. Spatial domain: folk Park, Forest Farnfei, the central pool.

The research sample consisted of 20 men out of 22 common man in sports Special Session of the elderly, has ruled out two of the lack of commitment in the audience, and the researcher used per experimental group system to identify research variables. And to identify the specifications sample in terms of good selection and the allocation of natural and homogeneity among the sample coefficient sprains to measure weight, height and age to a statement "Tjanassehm", the results were within normal limits for plants sprains (+3) as whenever the score resulting sandwiched between (+3) indicated that the grades are distributed naturally and homogeneous sample and the absence of defect in their choice (2), as shown in the table (1)

Testing protocols

- *Tested 50 m shuttle from a standing position*- to measuring the speed and agility and balance. The tools used: ran 25 and Hookahs number, placed first on the distance of 13 m from the starting line and put the rest behind pillars and a distance of 2 m from all, stopwatch and Makati and recorder. The Method performance: joint takes place behind the starting line and used to stand high as the beginning of the test mode, after hearing the reference laboratory running fast towards the first pillar then jogging shuttle between pillars back and forth. The Date: measured the time that interrupted the joint to the nearest 0.01 seconds (sec and pars thereof).

- *Test of Medicine ball throw*- the aim of the test: measuring muscle strength of the arms (explosive force). Tools used: Football medical weight of 2 kg and a tape measure and to perform the test. Method performance: joint carries the ball medical Baldhirain from the back of the head and then thrown and directed to forward to the farthest point. Date: joint lead two attempts recorded "Avdilhma" that does not exceed his feet selected firing line.

- *Bend the trunk test the bottom of the stand*- The aim of the test was to measuring flexibility- Tools used: Fund height of 50 cm and a tape measure in the form of a ruler graded numbers starting from scratch and up to 100 cm so that the zero point at the beginning of the front edge of the box and 50 cm for the top 50 cm of the bottom. Method performance: stand on the box and legs outstretched and Amadmomtan not be bending the two during bending the trunk forward and down to get to the nearest degree either positive or Negative, for example (+3) any exceeded zero down, either (-2) any negative for the top, and this process would be for a period of two seconds and each participant two attempts and calculates the best. Date: measurement Balsntmitr two attempts and recorded the best.

-Test to measure pulse rate at rest- the Goal of the test was to measuring heart rate at rest. The Tools used: my wrist device connects to the hand to measure heart rate. Test Method: The laboratory lying on the ground is linear for 10 minutes, and then pulse rate is measured by the device that connects the wrist to measure the pulse. Registration: Registration will be by reading the number of pulses recorded in the device per minute.

-Tribal tests- the tests were conducted tribal research sample by the working group included the physical tests and test measurement of pulse rate on 9/5/2008 four o'clock in the evening.

-Implementation of the proposed training program: The researcher implementation of the proposed training program for one hour a day, for three training modules in the week, eight weeks, the length of the training program starting from the day 12/5/2008 until 4/7/2008.

Statistical Analyses

Standard statistical methods were used to calculate means and \pm SD s. A oneway ANOVA was performed on the anthropometrics and different test performances of the two groups at the pre-test. To compare the effects of the training protocol, a mixed design 2 (test occasion: pre-post: repeated measures) x 2 (group: experiment vs. control group) analysis of variance (ANOVA) was used. All variables were tested for normal distribution, and when a significant *F* value was observed, Sheffe’s post-hoc procedures were performed to locate the pairwise differences. The level of significance was set at $p \leq 0.05$. Statistical analysis was performed using SPSS 18.0 for Windows (SPSS, inc., Chicago, IL).

III-RESULTS

The participant characteristics are summarized in Table.1. In the table 2 were shown the average differences and standard error and the significance of the differences between pre and post tests for the research sample.

Table 1: The characteristics of participant (n=34)

	Mean calculated	Mean	Degree of variation	Mean of regression
Age (years)	54,98	56	6,12	- 0,5
Hight (cm)	178,11	175	7,46	1,25
Weight (kg)	93,17	96	14,31	-0,59

Table 2 : Mean difference between test and retest of the sample selected

Data	Sample n=20		worth		difference
	<i>a</i>	<i>b</i>	calculated	program	
<i>Tested 50 m shuttle</i>	1.3	0.3	4.1	2.09	<i>significant</i>
<i>Medicine ball throw</i>	1.19	0.14	0.14	2.02	<i>significant</i>
<i>Test of Bend the trunk</i>	4.2	1.67	2.5	1.3	<i>significant</i>
<i>Mean</i>	2.3	0.28	8.21	1.6	<i>significant</i>

The results showed *the test of 50 m shuttle run*, the average founded a differences between the two tests $p < 0.05$, and after using the t-test the samples corresponding to measure the difference between the two tests pre and post, the value of (*v*) Imputed 4.1 is greater than the value spreadsheet amounting 2.09 under an error level of $P < 0.05$ and the degree of freedom of 19 and this confirms the existence of significant difference between pre and post tests and in favor of the post test. The results of the test of *medical ball throwing* the ball the average differences between the two tests was 1.19 meters and the standard error was 0.14, and after using the t-test for analog samples to measure the difference between the pre and post tests, the value of (*v*) calculated 8.5

which is the largest of its tabular value of 2.09 under an error level of $p < 0.05$ and the degree of freedom of 19 and this confirms the existence of significant difference between pre and post tests and in favor of the post test. The results of the *test bend the trunk* of the bottom showed that the average differences between the two tests 4.2 and standard error 1.67, and after using the t-test the samples corresponding to measure the difference between the two tests pre and post, the value of (v) Imputed 2.5 is greater than the value tabular of 2.09 below the level of error of $p < 0.05$ and the degree of freedom of 19 and this confirms the existence of significant difference between pre and post tests and in favor of the post test. Finally, the test results measure of heart rate at rest was average differences between the two tests 2.3 and standard error of 0.28, and after using the t-test for analog samples to measure the difference between the pre and post tests, the value of (v) Imputed 8.21 which is the largest of tabular value of 2.09 below the level of error of $p < 0.05$ and the degree of freedom of 19 and this confirms the existence of significant difference between pre and post tests and in favor of the post test.

IV-DISCUSSION

The present study shows that a significant differences were founded between the pre and post for the all tests measurement, we see the evolution of speed and agility in the shuttle test 50 m, This is due to the irregular sample in training within the proposed training program, (where the speed and agility to evolve through the shuttle run and the like in various kinetic exercises). Reduced balance, muscle strength, and flexibility in the elderly predispose them to falls and impaired quality of life. (Gaudreault, 2013) This is accentuated in elderly person in whom joint instability and pain further limit functional capacity. Previous studies have shown that the elderly person have reduced muscle strength compared with normal. (Gillespie, 2001). Anwer (2013) found reduced quadriceps strength and increased postural sway in elderly person compared with controls, and Sugiura (2013) demonstrated considerably impaired functional capacity with a high frequency of self-reported muscle problems in elderly person of the knee or hip. The clinical study of exercise programs in elderly person of the knees is that improving muscle strength in particular, and also coordination and flexibility, will improve functional capacity and reduce pain without causing deterioration of the disease despite the increased mechanical loading of joint tissues (Wang, 2013). The present study shows that it is possible to undertake such an exercise program in a group elderly person so severe that under normal circumstances they would be referred to improve the heath capacity (Sugiura, 2013; Hedman, 2013). The exercise program has some clinical benefit, although the finding of an increased number of knees with effusions after intervention might indicate that the intervention leads to increased disease activity.

The results of medicine ball testing throw showed a significant development in the explosive power of the arms, and researcher attributes that impact of the proposed training program which included exercises to develop muscle strength codified fits the reconstruction of the trainees. The increase of speed and reduce the resistors will improve fast explosive power". The test bend the trunk down, the results showed that there is significant development for the benefit of post-test, and the researcher attributes this development is the result contain the proposed training program flexibility exercises that led to the development of achievement. Because flexibility exercises and lengthen the muscles leads to expand the range of motion of the joints of the body and therefore extra freedom in the performance of movements. The training sessions were not designed to improve compliance by attempting socialization or otherwise and no economic compensation was paid. The low drop-out frequency is very similar to earlier studies of the effect of training on elderly person (Tsuji, 2013). This might be because this group of patients normally is not seen on a regular basis, and the increased attention given during the study period in it could improve compliance. This could also explain why the control group had such a high compliance to the assessment sessions. The most pronounced effects were a 20% increase in muscle strength for extension and a 40% increase for flexion of the least affected knee at low angular velocities. In the most affected knee there was no clear effect (Tsuji, 2013. This is in contrast to the findings of Fisher and coworkers, 919 who found no differences between the two legs in the response to intervention. However, it may be speculated that a true measurement of strength is hampered by knee pain in elderly person with severe affections of the knees of upper limb , thus making the

interpretation of the data for the most affected knee particularly difficultly changes in muscle strength was most pronounced under isometric circumstances and at low angular velocities.

The test results showed heart rate at rest sophisticated morally for the post test and that is in favor of the proposed approach, because practicing individuals for physical activity regularly works on the development of the work of the heart. We think that the amount of blood paid per strike at the heart of the trainee is greater than the heart is the trainee and this is able to deliver the amount of blood required for the body at rest a number less than the heart beat is apprentice. The notion of a greater physical activity in the months following the intervention is supported by the finding of an increasing number of training effusions in the most affected during the study period. Although the number of studied in elderly person is low, we find that the data could indicate an increased disease activity during and after the training program, which might be a result of an increased general physical activity.

V-CONCLUSION

Data from an experimental a model shown that regular exercises have given no indication of increased physical activity, and moderate exercise has been deemed relatively safe in elderly person. The safety of exercise programs in elderly person as severe as in our study remains to be clarified, and the possibility for adverse effects underlines the need that caution be observed. Further studies of the safety of exercise in elderly person are called for, with careful monitoring of disease physical activity during the trials.

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