Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 5-13
Original article

EFFECT OF USING THE KINETIC COMPUTERIZED STORY WITH SIGN LANGUAGE ON SOCIAL INTERACTION AND SOME OF THE BASIC KINETIC SKILLS OF DEAF AND DUMB STUDENTS

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Abstract

Purpose Computerized motor story accompanied with signal languages is considered one of the most important methods directed for deaf and dumb students combining between achieving physical purpose representing in improving physical characteristics and developing them , as well as developing basic motor skills of child such as walk , running , jumping and throwing social purpose is represented in increasing social interaction for the student in terms of learning the principle of give and take .

Methods The research community included primary first graders in school of deaf and dumb at Minia city , their ages range between (7-8) years.

Results The used method Both the researchers used the experimental method because it is the appropriate one for this research nature , Both the researchers used of the experimental designs , that is the experimental design for two experimental groups by following pre-post measurements for both of them .

Conclusions skills of social interaction , basic motor skills " for deaf – dumb primary first graders greater than motor stories based upon narrating of class female teacher

Key words Computerized- Accompanied- Language

Introduction

Childhood stage is considered the most important stage in man's life , at this stage , child abilities develop , his talents mature , and susceptible to effect , guiding and formation , So , childhood care and interest in it's activities is one of influences contributing in societies children are characterized with right physical mental and emotional development , they are more Educated and cultured comparing with other societies , So workers in Educational learning process at primary stage should concern with planning and designing Educational programs that contain different types of experiences aiming at integrated development in all aspects.

Adde (Abdel Aziz 1998)Education by motion is the natural access for an Educational system based upon natural child need for learning , As long as child physique is the concrete physical frame of existence meaning the child depends , through his body on understanding his self through his practice of directed motor activity , since motor Education or Education aim at – through movement to bring out traditional school Education to more positive and efficient methods in forming and developing the child of his maximum potentials , abilities and talents.

(Ahmed 2009)Establishing cultural bases that appropriate with society culture and Environment in which the child lives , in addition to it's certain and efficient contribution in the process of social interaction for the child through his existence in a group by which he works to confront psychological and emotional experiences that interact with him to achieve psychological and social coordination and he can judge situations and difficulties in which he faces

Modern Education in our present time concerns with suitability between child nature and needs in his different development stages and society and it's requirements in it's continuous change stages , suitability mans that the child acquires experiences and skills helping him in coordinating his way in society so that he can be a positive citizen contributing in his home service these skills and experiences can't be achieved fruitfully and usefully unless they were real and actual , and it was a result of application , or viewing , or hearing or tasting or touching where it causes in himself , his mind , thinking and behavior an Effect or interaction directed according to his surrounded requirements . for the sake of this modern Education seeks to provide children with positive experiences and skills , the basic function is developing individual's mental fortune so that each experience has a clear right concept in his mind .

Add (Ashraf 1993) Deaf child has the right in Education , and it was recognized matter in all societies that allow the principle of opportunities equivalence for all normal – abnormal children , Deaf children differ from normal children , in that normal child when joining school knows his name , his age and has several language vocabularies that help him in expressing his intentions , all these make the process of Educating the deaf child a difficult task , because this child can't speak and can't hear

Add (Farag 2000) A caustic handicap results

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Vol. XIV, ISSUE 1, 2014, Romania
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psychological effects that may cause great changes in personality , So , we find that individual general development is influenced with handicap , whether cognitively or affection ally , we find that these effects may increase from disabled to another , these effects are increase feeling of deficiency and helpless , feeling in security , Emotional unbalance , dominance of emotional behavior aspects , All these are shown in thoughts , compensation , projection , converse acts and justification Disabled defiance characteristics serves as a protection for him and his self threatening always from others directly as mockery or indirectly as neglect and insufficient interest.

Add (Mohamed 2001, Werner2006) From the first glance for previous characteristics and effects , we will see that sport activities will influence then directly , because most of these effects are due to society look , introversion and alienation in which disabled in put whether by his willing or against his will .

(Ibrahim 1998) confirmed that it is necessary to practice sport activities and involving disabled positively as one of efficient methods and psychological bases that must be put into consideration during dealing with disabled to limit negative psychological effects of handicap and consider limits and potentials of disabled in order not to feel disappointment as a result of failure in achieving the required performance.

(Omayyad 2000)From this , it is shown the importance of physical Education for deaf and dumps especially if it is supported with modern Educational technologies , and if it is used well , it develops and increase motor cognitive efficiency by individual – team activities , it stimulates learner's motivation to practice in varied competitions and events , and interest in group cooperation activities that increase social interaction because hearing loss leads to loosing contacts with others , they need to social maturity and it provides concrete physical base for cognitive thinking , reduces verbal students responses and makes students experiences standing long , It stimulates their self activity and helps than to perceive the goal of motor skill clearly by using their abilities on making use of sight sense in observing motor model.

Because of the importance of motor stories – as an Educational method and computer as Educational medium in achieving goals of physical Education and developing it through raising physical , skilful , cognitive and even psychological and social level , especially clear importance of pictured information and cognitions for deaf and dumps in addition to signal language as communication method m both the researchers felt the importance of finding the effectiveness of these determinants (computerized motor stories accompanied with signal language) in achieving and developing general goals of physical Education and special Education for deaf and dumps , Both the researchers felt that this study may help in clarifying the vital role in which physical Education performs in building the disabled .

Add (Samir1996, Wafaa2001) From previous mentioned , both the researchers see that the learner especially deaf and children always need to what attracts his attention , hence using varied methods and ways to attract learner's attention during learning makes him more efficient during teaching , So it is necessary to make use of both motor story and computer advantages in an integrated way through technological Educational environment based upon multimedia systems in a way achieving the desired goals in a high degree .

Aim of the research

The present research aims at showing the effect of computerized motor story accompanied with signal language on social interaction and some basic motor skills of primary deaf and dumb first graders

Procedures:

The used method

Both the researchers used the experimental method because it is the appropriate one for this research nature , Both the researchers used of the experimental designs , that is the experimental design for two experimental groups by following pre-post measurements for both of them .

Coefficients values for these variables of the sample as a whole and for the first – second experimental groups range between (1.23 : - 1.51) , it restricts between ± 3 indicating the normality of students distribution (the research sample) in these variables between first – second experimental groups in these variables , table (1) shows this .

Results

Table (1)
Differences significance between the first – second experimental groups in variables " under research " with non parameter Man – Whitney method (N = 20)

Variables Development Ratios	Measurement Unit	The first experimental group (N = 10)		The second experimental group (N = 10)		U	W	Z	Sig
		Sum rank	Mean rank	Sum rank	Mean rank				
development ratios									
Age	Year	102.00	10.20	108.00	10.80	47.00	102.00	0.23	0.82
Height	Centimeter	93.00	9.30	117.00	11.70	38.00	93.00	0.92	0.36
Weight	Kilogram	100.00	10.00	110.00	11.00	45.00	100.00	0.38	0.70
Hear	Decibel	96.50	9.65	113.50	11.35	41.50	96.50	0.65	0.51

Intelligence	Score	95.00	9.50	115.00	11.50	40.00	95.00	0.76	0.44
Social Level									
Social Level (economic)	score	103.50	10.35	106.50	10.65	48.50	103.50	0.11	0.91
Social Level (culture)	score	93.50	9.35	116.50	11.65	38.50	93.50	0.88	0.38
Total Degree	score	98.00	9.80	112.00	11.20	43.00	98.00	0.54	0.59
Scale of social interaction									
Communication	score	107.00	10.70	103.00	10.30	48.00	103.00	0.16	0.88
Anticipation	score	100.00	10.00	110.00	11.00	45.00	100.00	0.38	0.70
Perceiving role and acting it	score	108.00	10.80	102.00	10.20	47.00	102.00	0.23	0.82
Significant signs	score	113.50	11.35	96.50	9.65	41.50	96.50	0.65	0.51
Total Score	score	106.50	10.65	103.50	10.35	48.50	103.50	0.12	0.91
Basic motor skills for children									
An ability of balanced walk	number	110.50	11.05	99.50	9.95	44.50	99.50	0.43	0.67
An ability of running at different directions	number	106.50	10.65	103.50	10.35	48.50	103.50	0.12	0.90
An ability of broad jump from steadiness	number	104.50	10.45	105.50	10.55	49.50	104.50	0.04	0.97
An ability of rebound jump	number	104.50	10.45	105.50	10.55	49.50	104.50	0.04	0.97
An ability of rotation , then quick running	centimeter	114.50	11.45	95.50	9.55	40.50	95.50	0.72	0.47

It is shown from table (1) the following : There are no statistically significant differences between two research groups in variables (under research) since all values of error probability are greater than significance level of 0.05 indicating their equivalence in these variables .

Methods of data collection:

Both the researchers determined methods of data collection used in the research as follows :

Firstly: tests and measures:

1 – Intelligence test:

Both the researchers used " Man draw " test , it was prepared by American researcher " Good Enough 1920 " arabized by " (Fouad 1977), it was selected because it was applied on Egyptian environment and on the same age stage , it is economical and simple in it's application and children pounce it for their love in drawing , it also can be applied individually or collectively without restricting time , It enjoys high scientific coefficient where test validity correlation methods with achievement score was (0.94) , Reliability coefficients values of test ranged between (0.99 : 0.97) by applying test – retest application test consists of (77) vocabularies where a score is given for each part of body by which student drew , as well as dress descriptions and some other properties then vocabularies were summed , so sums of these vocabularies were total score of the student , that is total sum of test vocabularies (77) scores (7) .

2 – Scale of social level (economic - cultural) :

It is designed by " Samia " , this scale aims at recognizing social level " economic – cultural " of student's family , the scale consists of two dimensions " social level , economic " social level " cultural " , Each dimensions of the scale contains (12) vocabularies to know " number of family members – family income – it's available tools and apparatus – Education level of father and mother – cultural – welfare and sport practices of family " , the scale is corrected according to it's correction key , the scale has high scientific coefficients where the scale validity through validity of hypothesized construction with the method of internal consistency by finding correlation coefficients between the score of each dimension and total score of the scale was (0.69 , 0.71) according to order Reliability coefficient values of both scale dimensions were (0.64 , 0.67) according to order by applying reapplying the scale.

3 – Scale of social interaction:

(**Younis** 2004) designed this scale in purpose of measuring processes that link between group members with each other mentally and socially in needs, desires, methods, ends, cognitions and the like, the scale includes (50) statements , among them are positive statements in the axis direction , and some other are negative statements contrary to axis direction , these statements were distributed in (4) axes following are list dimensions .

Communication : this axis includes " displaying coherence " to raise other state , providing help and support , showing relief , signs of tension alleviation , showing satisfaction , agreement , showing acceptance understanding , obedience , number of axis statements (15) that are

positive statements : 1/2/17/38/44/47, negative statements: 11/12/18/24/29/30/39/46/50 .

Anticipation : this axis includes " decisions taking " self dependence – influencing others – expressing opinion – expressing feelings and desires , controlling the anticipated behavior – anticipating movements – axis statements are (10) that are :

positive statements : 9/10/13/26/34/35 . negative statements : 3/19/31/36 .

perceiving the role and acting it , this axis includes knowing duties and confirming them , participation in activity , the ability to act other roles , feeling with a bit of importance knowing what he can achieve , axis statements are (14) , that are :

Positive statements : 4/7/8/6/21/32/41/49 . Negative statements : 15/23/25/37/40/48 .

significant signs this axis includes language – facial expression , using hand , thinking unit , goals , thinking , through , feelings , execution , axis statements are (11) that are :

Positive statements : 14/20/27/42/43/45 . Negative statements : 5/6/22/28/33 .

The range of probable scores of the scale ranges between (50) scores as minimum to (150) as maximum. female teachers respond for each statement by evaluating students in the light of triple estimation balance as follows : positive statements : always appears estimated with (3) scores , appears occasionally estimated (2) scores , not appear estimated (1) score , the scale has high scientific coefficients where the scale validity was confirmed through structed validity and hypothesized construction validity with the method of internal consistency by finding correlation coefficients between the score of each statement and the scale total score , correlation coefficients range between (0.28 , 0.63) and all are statistically significant value of the scale reliability coefficient was (0.90) by calculating it with the method of half split .

4 – Battery of basic motor skills for children :

Both the researchers found tests of basic motor skills through:

Determining basic motor skills by reference study of scientific sources, and previous studies and researchers that deal with basic motor skills in purpose of determining these skills and considering appropriate tests to measure them .

Both the researchers prepared a form of experts opinion survey about appropriate motor skills for acoustic disabled student (deaf - dumbs) ranging from (7 - 8) years old, (Appendix 3) . Both the researchers presented this form on a set of experts of (10) working in the field of school physical Education , curricula and teaching methods (Appendix 1) , to know their opinion about basic motor skills that are appropriate for age stage " Under research " skills – that gained a percentage of 70% , were selected Experts opinions revealed determining (11) basic motor skills appropriate with the age stage (7 - 8) years , that are : (Walking – running – jump – throw – grasp – kicking – rolling the ball – balance – hoping – leap – rotating) where these skills gained a high percentage ranging from (80% : 100%) , In the light of this , both the researchers considered these skills are important for children (the research samples) , Both the researchers selected some of these skills representing in (walking – running – jump – balance – rotation) develop them for children (the sample research) .

Both the researchers , after determining motor skills that are thought for children (the research sample) they counted current tests for each skill , through knowing scientific references that dolt with tests measuring these skills and an sample similar to the research sample , Both the researchers found a battery of basic motor skills for children prepared by Kiko to measure basic motor skills desiring to develop that were arabized by Ahmed farouk , (Mahmud 2009).They were selected for it's modernity and appropriateness for the search's goal and sample . They consist of (5) tests as follows :

Test of balanced walk ability measurement unit is number.

Test of running ability at different directions measurement unit is number .

Test of broad jump from steadiness measurement unit is number.

Test of bounce jump in place measurement unit is number.

Test of rotation, then quick running ability measurement unit is centimeter.

The battery has high scientific coefficients where battery validity was confirmed by validity of tailed comparison by finding (Z) value .Between higher quartile and lower quartile for a sample of Basketball juniors ranging from (10 : 12) years , (Z) values of batteries ranged between (2.45 , 2.74) and all are statistically significant , Reliability of batteries coefficients values ranged between (0.80 , 0.96) by battery apply and reapply.

Scientific coefficients of tests and measures in the present research:

A – Validity:

To calculate validity of tests and measures " under research " both the researchers used validity of tailed comparison by applying it on a pilot sample from the research community and outside basic sample of the research of (20) students , students grades were ordered a secondly to determine the highest quartile to represent students of high grades in these tests and measures of (5) student with a percent of (25%) lower quartile to represent students of low grades in these tests and measures of (5) students with a percent of (25%) , Differences significance was calculated between two groups in tests and measures under research , (Z) values ranged between (2.42 , 2.71) and all are statistically significant ($P < 0.05$) and in the direction of higher quartile indicating the validity of these tests and measures and it's ability to differentiate between groups .

B – Reliability:

To calculate reliability of tests and measures under research , both of the researcher used the method of applying – reapplying test on sample of (10) students from the research community and non original sample with time difference between first – second application of (7) days for intelligence tests , scale of social level and level of social interaction , and (3) days for battery of basic motor skills for children , Both the researchers found correlation coefficients between two applications , correlation coefficients ranged between (0.70 : 0.95) and they are statistically significant ($P < 0.05$) indicating reliability of these tests and measures under research .

Secondly: computerized motor stories accompanied with signed language:

Both the researchers prepared a set of motor stories appropriate with the research goal as well as development characteristics of age stage (7 – 8) years , primary deaf – dumb first graders , by returning to the scientific references , as well as previous studies such, and some internet sites , the researcher found :

1 – General goal of motor stories:

motor stories aim at developing social interaction and some basic motor skills for primary deaf – dumb first graders .

2 – Behavior goals of motor stories:

After ending of presenting and applying motor stories, the student will be able on :

Acquiring the ability to know body and recognizing it's different parts.

Acquiring the ability on imagination and creation.

Performing some basic motor skills representing in balanced walk, running with all it's types , jump , rotation .

Reducing the severity of his tension through expressing situation related emotion.

Feeling happiness and enjoyment.

Establishing in activities and making dialogue and friendship with them.

Acquiring loyalty for group through playing in groups.

3 – Bases that were put into consideration for preparing motor stories:

Stories achieve it's desired goal.

Considering students needs gratification of movement and activity.

Interested in expression freedom and providing an opportunity to stimulate student imagination and motivate him towards invention and creation .

Steaming from student environment , so he can picture it's events and imitate it's heroes .

Providing appropriate place and potentials to execute stories and concerning with security factors keeping to student safety.

Interested in satisfying students dispositions of imagination, perception and creation .

4 – Content of motor stories:

Both the researchers could prepare (8) motor stories (appendix) including the following subjects :

Social interaction: including communication, anticipation , perceiving role and acting it , and significant signs .

Basic movements: including balanced walk , running at different directions , bounce jump in place , broad jump from steadiness , rotation then quick running .

Inventive and creative movements: including simple creative performance by using transitional and non transitional movement such as imitating animals, birds, transportation, trees and flowers.

Awareness with body and controlling: including recognized different body parts and relating performance of some motor activities with different body parts.

5 – Preparing preliminary image of motor stories:

In the light of general goal and behavior goals that are desired to achieve and the selected content, both the researchers prepared the preliminary image of motor stories and presenting it on experts of staff members at faculties of physical Education department of curricula and teaching methods and faculties of specific Education, department of Education technology (Appendix A) in purpose of surveying their opinions about:

The extent of appropriateness for it's desired goals.

The extent of appropriateness for students characteristics and requirements (the research sample) .

It's scientific accuracy and it's language formulation supported with signal language.

Both the researchers are Keen on meeting some experts during presenting stories on them so that they can discuss and answering their questions and following their opinions about these stories.

6 – final image of motor stories :

After reviewing and analyzing experts opinions, both the researchers calculated modifications by which experts suggested, so motor stories appeared in it's final image.

7 – General frame for implementing motor stories:

Implementation of motor stories lasted (8) weeks as much as unit weekly for each motor story , where each unit includes two lessons weekly with an average of 45 minutes for each lesson equivalent to (16) lessons during the period of experiment implementation , Organizational from of the lesson was as follows :

Administrative work (5 minutes) , in this part the researcher narrated the story on first experimental group students , class female teacher translated it with signal language for the students , As for students of experimental group , the same story was presented by computer .

Warm up (5 minutes): aiming at preparing all body muscles for work, this part id characterized with suspense and excitement and quick movement where is most warm based upon small games was used in most units .

Pre- presenting the story with application (20 minutes): in this part the story was re – narrated allowing the student to translate situations to sport movements in which he selected that accord with the story nature.

Conclusion (5 minutes): including cool down exercises to make the student returns to his normal state and contain „Relaxation Exercises"

8 - Evaluation methods:

In order to evaluate the extent of motor stories effectiveness on both social interaction and some basic motor skills for the research sample loath the researchers determined the following methods :

Scale of social interaction.

Battery of basic motor skills for children.

Pilot study:

Both the researchers conducted this study from 19/9/2011 to 28/9/2011 on a sample of (20) students from the research community and outside the original sample, it's goal was:

Recognizing the extent of stories appropriateness for students abilities and potentials.
Testing appropriateness of apparatus, instruments and place used for application.
Experimenting tools of data collection to know students understanding of these tools.
Recognizing the extent of aid workers understanding for their duties and tasks.
Recognizing problems that face implementation process.
Confirming scientific coefficients validity , reliability " for tools of data collection used in the research
This study revealed:
Stories appropriateness with students abilities and potentials.
Good understanding for aid workers and their good knowledge for their duties and tasks.
Tools of data collection used in the research are on an acceptable degree of validity and reliability .
Pre – measurements : Both the researchers conducted pre – measurements for both first – second experimental groups from 1/10/2011 to 3/10/2011 in variables of development ratios , age , height , weight , hearing measurement , intelligence , social , economic , and cultural level for the family , scale of social interaction for children , batteries of basic motor skills for children , Both the researchers put into consideration applying measurements uniformly for all students "under research".
Procedures of experiment implementation:
1 – Both the researchers met students of second experimental of groups before starting in applying the program to explain how to use computers , firstly in terms of how to operate , close and put CD ROM , how it works , explain it's uses , screens , and how to travel between it's units and keys functions , inside the program .
2 – In the beginning of program application, both the researchers started taking absence of second experimental group students. Viewing started by learners going with both researchers to computer laboratory at school in the beginning of the class, which is prepared near the place of practical application to assure not wasting time in watching the program . Viewing time was (10 minutes).
3 – After finishing viewing time , teachers move quickly to play ground , warm up starts for (5 minutes) , after finishing the story was re – narrated allowing the student to translate situations to sport movements in which he selects accorded with the story nature for (20 minutes) , after that students were given some cool – down exercises to return to their normal state " conclusion " of (5 minutes) .
Basic experiment : After finishing pre – measurement both the researchers applied motor stories based upon class female teacher narration with signal language on students for first experimental group and computerized motor stories accompanied with signal language for students of second experimental group from 8/10/2011 to 3/12/2011 , Both the researchers adhered during experiment implementation that the researcher helps class female teacher in teaching first – second experimental group through the period of experimental .
Post measurement: It was conducted for both first – second experimental groups from 4/12/2011 to 5/12/2011 in variables of scale of social interaction for children, batteries of basic motor skills for children; this was done immediately after finishing program application as a whole and with the same conditions followed in pre – measurement.

Discuss

Presenting the results, interpreting and discussing them:
The first hypothesis of the research is about the existence of statistically significant differences between mean scores of pre – post measurements for first experimental group members that used motor story based upon class female teacher in developing social interaction , basic motor skills " under research " and on behalf of post measurement , to as certain validity of this hypothesis , differences significance was calculated between mean scores of pre – post measurement with method of non parameter WILCOXN, as well as percentage of change , the following table shows the results .

Table (2)
Differences significance between mean scores of pre-post measurements for the first experimental groups in both of social interaction and basic motor skills " under research "
with non parametric wilcoxon method (N = 10)

Variables Development Ratios	Measurement Unit	pre measurements		post measurements		Z	Sig	Percentage of change%
		Mean	±S.D	Mean	±S.D			
Scale of social interaction								
Communication	score	22.8	2.9	27.90	2.96	2.91	0.004	22.37
Anticipation	score	16.2	2.78	20.10	2.64	2.71	0.007	24.07
Perceiving role and acting it	score	24.3	2.5	29.30	3.30	2.81	0.005	20.58
Significant signs	score	15.8	2.44	20.70	2.50	2.85	0.004	31.01
Total Score	score	79.1	4.51	98.00	4.00	2.81	0.005	23.89
Basic motor skills for children								
An ability of balanced walk	number	14.00	1.25	15.00	1.25	3.16	0.002	7.14

An ability of running at different directions	number	4.30	0.82	5.30	0.82	3.16	0.002	23.26
An ability of broad jump from steadiness	number	13.97	1.32	12.79	1.49	2.91	0.004	9.23
An ability of rebound jump	number	12.20	2.15	10.80	2.04	2.88	0.004	12.96
An ability of rotation , then quick running	centimeter	212.60	11.74	207.60	11.74	3.16	0.002	2.41

It is shown from table (2) that there are statistically significant differences between mean scores of pre – post measurement for first experimental group in all variables " under research " in direction of post measurement since all values of error probability are smaller than significance level (0.05) and changing rates between (2.41% : 31.01%) .

Both the researchers attribute this positive result for motor stories based upon class female teacher narration for students acquisitions in the first experimental group of the skills necessary for social interaction and it's development seriously through variation and shifting regulary between motor stories that lead in turn to achieve moderate amount of communication with other children and establish successful social relations with them in addition to continous and effective exchange of roles variation in these stories , they also provided fair amount of skills and experiences that contribute effectively in raising performance level of first experimental group students for what they contain of movements appropriate for their ages , and excitement banish ring boredom and tiredness of themselves , so making them pouncing at executing motor skills that is the subject of the study .

This accords with what (Kanaan 2008) indicated the method of motor story may be not familiar for children , so found a positive echo for them , and a new Educational learning experience attending their interest and meeting their needs that make them more effective in class , because the existence of imagination and excitement component , this accords with the results of (Wafaa 2008) that indicated to children performance for the method relied upon activity and experimentation , hence the first hypothesis of the research is achieve

The second research hypothesis concerns the existence of statistically significant differences between mean scores of pre – post measurements for members of second experimental group that used computerized motor stories accompanied with signal language in developing social interaction and basic motor skills under research on behalf of post measurement to ascertain validity of this hypothesis differences significance between mean scores of pre – post measurements with non parametric was calculated as well as change percentage Results are shown in the following table :

Table (3)

Differences significance between mean of pre – post measurements for the second experimental group in both social interaction and basic motor skills under research
with non parametric wilcoxon method (n = 10)

Variables Development Ratios	Measurement Unit	pre measurements		post measurements		Z	Sig	Percentage of change%
		Mean	±S.D	Mean	±S.D			
Scale of social interaction								
Communication	score	22.4	3.34	32.50	3.54	2.87	0.004	45.09
Anticipation	score	16.6	2.84	25.70	2.50	2.84	0.004	54.82
Perceiving role and acting it	score	23.9	2.77	32.80	2.74	2.83	0.005	37.24
Significant signs	score	15.3	2.31	24.90	1.79	2.97	0.003	62.75
Total Score	score	78.2	2.3	115.90	2.73	2.81	0.005	48.21
Basic motor skills for children								
An ability of balanced walk	number	13.9	1.1	16.60	1.43	2.85	0.004	19.42
An ability of running at different directions	number	4.3	0.67	7.90	0.57	2.91	0.004	83.72
An ability of broad jump from steadiness	number	13.99	1.33	10.35	1.13	2.82	0.005	35.17
An ability of rebound jump	number	12.4	1.71	9.10	1.52	2.92	0.004	36.26
An ability of rotation , then quick running	centimeter	209.3	9.25	197.10	7.05	2.82	0.005	6.19

From the results of table (3) in is shown that there are statistically significant differences between means of pre – post measurements for second experimental group in all variables " under research " and in the direction of post measurement , since all values of error probability is smaller than significance level 0.05 change rates ranged between (6.19% : 83.72%) .

Both the researchers attribute these results to significant effective impact of motor stories based upon computer , since motor stories allow an opportunity for the child of movement freedom and upon broader and deeper aspects of creative and logical thinking , helping him to express himself through his movement and narrate the story with his method and develop his imagination in addition to it's contribution in developing his encyclopedia , so he acquires several concepts and recognizes his surrounded environment, he is familiar on participation , team work and team

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST, DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

spirit , Both the researcher attribute this result also to computer properties , since it works on creating good educational environment through involving all students sensories , simulating their motivation for learning since viewing motor stories in computer get rid completely boredom , because it makes the student feels his value , and personality without female teacher intervention during presentation process using signal language helped on establishing the image and completing what is deficient in visual perception of presented motor stories and working on increasing feedback and approximating the image in learner's mind from Education situation reality .

Discuss. This accords with what Farag Abdel (Hameed 2000), Kareman (Bedeer 2004) indicated that by motor story , preliminary and basic movements can be educated , not given in it's static traditional form , through motor story , teacher's task in executing enjoyable and useful Educational class , study of " (Rasha 2009) confirms that computerized motor story has an effective impact on both self – concept and the ability on creative thinking and some basic motor performances for primary first graders , hence research second by hypothesis is achieved .

The third hypothesis of the research was about the existence of statistically significant differences between mean scores of two post measurements for members of first experimental groups in developing social interaction and basic motor skills " under research " on behalf of the second experimental group to ascertain validity of this hypothesis , differences significance between mean scores of pre – post measurements with non parametric man – Whitney method , as well as differences in change percentages , results are shown in the following table

Table (4)
Differences between mean scores of two post measurements for members of first experimental groups in developing social interaction and basic motor skills
" under research " with non parameter Man – Whitney method (N = 20)

Variables Development Ratios	Measurement Unit	The first experimental group (N = 10)		The second experimental group (N = 10)		U	W	Z	Sig	Percentage in change rates %
		Sum rank	Mean rank	Sum rank	Mean rank					
Scale of social interaction										
Communication	score	55	5.5	155	15.5	0.00	55	3.80	0.00	22.72
Anticipation	score	55	5.5	155	15.5	0.00	55	3.79	0.00	30.75
Perceiving role and acting it	score	55	5.5	155	15.5	0.00	55	3.78	0.00	16.66
Significant signs	score	55	5.5	155	15.5	0.00	55	3.80	0.00	31.74
Total Score	score	55	5.5	155	15.5	0.00	55	3.80	0.00	24.32
Basic motor skills for children										
An ability of balanced walk	number	60.5	6.05	149.5	14.95	5.5	60.5	3.43	0.00	12.28
An ability of running at different directions	number	55	5.5	155	15.5	0	55	3.90	0.00	60.46
An ability of broad jump from steadiness	number	153	15.3	57	5.7	2	57	3.63	0.00	25.94
An ability of rebound jump	number	146	14.6	64	6.4	9	64	3.15	0.00	23.30
An ability of rotation , then quick running	centimeter	139	13.9	71	7.1	16	71	2.57	0.00	3.78

From results of table (4) it is shown that there are statistically significant differences between mean scores of two post measurements for first – second experimental groups in all variables " under research " and in the direction of second experimental group since all values of error probability are smaller than significance level 0.05 Differences between change rates ranged between (3.78% : 60.46%) .

Both the researchers attribute this result that computer helped on developing information achievement and the ability to imagine and analyze movement since it provides visual images and analyze movement since it provides visual images and drawings whether they were static or dynamic accompanied with story narration representing in signal language related with these images . this image shows relationships between different body parts during performance and body relation with execution place, as well as movement forms during all performance stages , it makes child acquires desired behavioral traditions .

Story can provide indirectly the required good model of acquire , these traditions and broader his social relationships circle , and satisfy his need for belonging feel himself as autonomous self , not running in his parents circuit , not relying on them in everything , make him acquiring right social concepts and show his role between colleagues .

Computer is characterized with simple and excitement method of presentation with considering coordination in presentation , good language formulation and music support , all these made motor stories based upon computer distinctive than motor stories based upon class female teacher narration , since it because able to construct basic know lodgment of student appropriate with his perceived thoughts and information , this accords with what (Mohamed 2004) indicated that there is an Educational values in child's life in purpose of raising him properly , since it contains static and dynamic draws , it is an important method to imprint Educational , morale , cultural and social concepts in child bottom of his heart because they provide information for them in attractive dramatic model , and it is the favorites subject on their part by their nature they love expressive image , and fine color attracts them , they interact with it , by these stories and other , children learn how to order thoughts in sequence form , since they have opportunities to watch stories because of their creative outcome better then children who don't have similar opportunities , so research third hypothesis is achieved .

Conclusions. In the light of research results, both the researchers recommend the following:

1 – The necessity of interesting in developing methods and educational medium in physical Education class for deaf – dumb students.

2 – Interested in making programs and methodological plans appropriate with deaf – dumb students so that they can accord with their surrounded environment and follow it in terms of development and advancement.

3 – The necessity of researchers direction in the field of physical Education teaching methods and education technology in order to relate with each new and modern in the field of education technology and operating it in the field of physical Education class especially foe special classes including deaf and dumb .

4 – relaying on the method of motor story whether based upon female teacher narration or computerized motor story in developing some social interaction skills , basic motor skills for deaf – dumb first graders .

5 – Qualifying class female teachers on using motor story method whether based upon female teacher narration or computerized motor story and providing them with prepared models for motor stories helping them in teaching .

6 – conducting further researches and studies about other methods to develop skills of social interaction and improving some basic motor skills in fields of physical Education in general and disabled in particular

References

Abdel Aziz Abdel Kaream El Mostafa 1998. Motor activity and it's importance in developing motor, sensory and cognitive abilities of children , Yarmouk researches , No 1 , Vol 14 , Jordan ,PP 29, .

Ahmed farouk Khalaf, Mahmoud Hussein mahmoud 2009: The Effect of a suggested training program of coordinated abilities on the level of performing some basic skills for Basketball juniors published research Magazine of sport science , faculty of physical Education , Minia University

Ashraf Sayed Gomaa1993,: The Effect of a suggested program by using motor story on motor creation of pre-school children at Minia city , Unpublished master thesis , faculty of physical Education , Minia University.pp49,40 ,112

Farag Abdel Hamead Tawfek2000: Models of motor stories , book center for pub;ication , Cairo .

Kareman Bedeer, 2004, Integrated care – motor activities cognitive activities – art activities – books world, Cairo.

Mohamed Mahmoud Morsi, Wafaa Mohamed ,2001 Salama : Electronic stories presented for pre – school children , first regional conference , 24 – 25 of January , Arabic child under contemporary variables , books world , 2004 , page 510 .

Nebras Yones Mohamed Al Mourad, 2004, The Effect of using programs with motor plays , social and mixed plays in developing social interaction of pre-school children (5-6) years unpublished doctoral thesis , faculty of physical Education, Mousel University , Iraq

Omayyad Histamine Mohamed 2000: The Effect of gymnastics program by using methods helping in motor sensory perception and motor abilities for acoustic disabled , unpublished master thesis , faculty of physical Education for girls , Helwan University , PP4.

Rasha Nageh Ali, Basem Mahmoud Abdel, 2009, Hakim The effect of using computerized dynamic story on the concept of self and the ability to innovative thinking and some of the basic kinetic performances of the students of first grade, published research Magazine of sport science , faculty of physical Education, Minia University. 23,48 , 20

Samir Debabna,1996, A window on Educating deafs institntion of holy lands for deaf , center of Jordan book , Oman , Jordan ,PP 21.

Wafaa Mohamed Abdel El Kalequ, 2001, playing social roles and it's relation with socializing Kindergarten child personality , Katwa magazine, No 13 , Arabic council for childhood and development , Cairo, Egypt ,PP 24 .

Werner, P, 2006, Whole physical Education, journal of physical Education, reaction and dance 65 (6) ,PP. 40-44,.

Younis Mahrous, 2004, Development Technology Mathematical Sciences Publishing and Printing House, Egypt

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST, DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 14-18
Original article

THE EFFECT OF FLOAT TOOLS ON SOME BASIC SKILLS PERFORMANCE IN SWIMMING AND SOME PHYSIOLOGICAL VARIABLES FOR STUDENTS IN FACULTY OF PHYSICAL EDUCATION

AL SHIMAA SAAD ZAGHLOL ERFAN[1]

Abstract

Purpose. The research aims at recognizing the effect of using buoying instruments on some basic skills of swimming and some physiological variables for female students at faculty of physical education, Beni Suef university through.

Methods female first graders, faculty of physical education, Beni Suef University on 2011/ 2012, of (136) female students, the researcher selected a random sample of(40) female students, divided into two equal groups.

Results this to the existence of improvement in level of skilful performance of basic skills and level of some physiological variables for female students (experimental research sample) to using the suggested educational program by using id buoyancy instruments that contribute greatly is learning swimming basic skills quickly and in a good way,

Conclusions that variation and using aid instruments well contributed greatly in learners ability on learning speed, skills perfection and that using appropriate modern educational methods help in learning and perfecting skills quickly and increasing effectiveness of swimming lessons.

Key words: Basic- swimming- physiological - float tools.

Introduction

The most important advantages of sport is it's close connection with developments and other natural, sciences bases where every sport activity is characterized with special abilities and description qualifying sportsman to practice this type of activity and empowering him to reach high levels

Add (Essam2003, Bahgat 2007) Swimming – as sport- is practiced by both sexes and indifferent ages according to their abilities. It differs from the remaining other sport activity, since aquatic milieu is considered a basis for progress by using arms, lags and trunk, and on the other hand it represents individuals ability to interact with aquatic milieu that differs from land milieu in which he lives raising individual's efficiency physically, skillfully and physiologically and reaching multi- aspects balanced education.

(Lee 1991,Watah, 2005) Although there is an ideal technical performance of swimming modes by which each learner adheres in performing this movement, but there is a difference between one learner and another in his functional potentials, so this performance may appropriate for some athletes but not for others

(Mahmoud, 2007) indicates that each skilful performance requires a special kind of abilities that must be available for the athletes himself as well as training process related abilities. Physical and physiological abilities form fundamental aspects influencing the level of recorded championship acquisition where physical activity requires a certain degree of functional aptitude that prepares the body to face the requirements of practiced activity type so that the process of physiological adaptation occurs that leads autonomously to this adaptation.

(Elgohari, 2003) see that different effects of physical training types on bio- systems and t is one of the primary aspects that contributed in developing methods of sport training , since these studies aim at showing the effect of physical performance methods on compositional and functional aspects of body organs and systems.

And that one of the most important sport scientific measurement is to recognize physical ability of the athlete including physiological traits as a basis to diagnose his health state evaluate his physical abilities in relation with his specialized sport activity as well as using it's results in structuring training leads for sport activities.

Add (Matheus 1998, Mohamed 2001)Body position of the learner during practicing swimming is one in which wood pressure is in it's least levels during lying, because blood will run away a bit away from the effect of gravity and heart rates reduces also, since the learner often makes muscular work with breath holding generating the rise of carbon dioxide in blood to make body responds for this change by expanding arteries especially caroled arteries feeding the brain. This response shifts to adaptation over time leading to the development of brain feeding process and develop mental anilities

(Moustafa 1998, Bahaa 1994) Aid instruments are used in performing exercises of introductory swimming that facilitate the potential of skill that are desire to learn, and they help in overcoming fear, so they are considered one of important educational factors as well

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as their role in helping learner to verify education that stimulate learner's tendencies to improve better performance

(Mohamed, 2002) sees that using instructional methods in the process of learning motor skills leads to construct and develop motor perception of individual learner, improve performance descriptions, and influence learning speed

(Rodrigues 2002, Usama 1999) Aid instruments are considered one of important factors in attracting learners attention, stimulating their interest, and work on forming positive attitudes in work, improving performance, saving teacher's effort and helping learner on speeding and perfecting swimming skills and it also helps in reducing time allotted for learning the skill.

Previous studies and scientific references such as study of " (Wesel 2000) indicated that programs that rely on using buoyancy instruments influence positively on the level standing in water, and performance legs alternative strokes for(12.5 m) , swimming for (15m) and effectiveness of aid instruments in getting rid of fear factor and speed in learning swimming.

Ali, 2002, indicated that training programs that use aid instruments worked on improving all components of physical fitness related with health, body composition and assimilation during rest. They indicated metabolic response, cardiac and blood vessels of shallow water exercises and change positively physiological standards , where heart rates and maximum oxygen consumption reduced, and lungs ventilation increased for experimental group research in an attempt to recognize the effect of using instruments of buoyancy on the level of performing some basic skills in swimming and some physiological variables.

Aim of the research:

The research aims at recognizing the effect of using buoying instruments on some basic skills of swimming and some physiological variables for female students at faculty of physical education, Beni Suef university through:

1- Recognizing the differences between means of pre- post measurements for the experimental group in physiological variables (bio capacity-maximum oxygen consumption, rate of basic skills in swimming (swimming for 15m , standing in water beginning distance, legs strokes from buoyancy position, standing in water.

2- Recognizing differences in means of two post measurements for control experimental groups in physiological variables and basic skills under research.

Plan and procedures of the research:

Method of the research:

The researcher used the experimental method , Experimental design was used for two group by using (pre- post) measurement for them,

Community and sample of the research:

Community of the research represents female first graders, faculty of physical education, Beni Suef University on 2011/ 2012, of (136) female students, the researcher selected a random sample of(40) female students, divided into two equal groups.

Normal distribution for the research sample in relation with the research sample.

Arithmetic mean, median, standard deviation, and coefficient of kweness were calculated for the variables under research of the sample. Value of Kweness coefficients for variables under research ranged between (- 0.82, 1.63). All these values of all between (± 3) meaning that the sample under research is distributed normally in relation with these variables.

Equivalence between the experimental and control groups:

Differences significance was calculated between the experimental- control group in variables under research where "t" calculated values ranged between (0.15, 0.80) and all is less than tabulated "t" value at significance of (0.50) of (1.81) indicating that there is no statistically significant differences between the control- experimental groups in both development ratios, physiological variables and basic skills under research indicating to the equivalence of both groups in these variables.

Methods of data collection:

The researcher acknowledged and reference surveyed scientific references and Arabic and foreign previous studies and year specialized in the field of sport training in general and swimming training in particular in purpose of restricting and determining the most important physiological variables related with swimming and how to measure them, as well as swimming basic skills and surveying the opinion of (5) experts in what was achieved. Great tests were used with 80% of experts as follows:

Firstly: apparatus:

Sport tester PE 3000 to measure cardiac rate.
Accor sport to measure ratio of lactic acid in blood.
Anthropometry to measure height and weight.
Dry Spiro miter to measure bio- capacity.

Secondly: Tests:

Harvard step test to estimate maximum oxygen consumption.
Test of 15.m swimming.
Test of measuring starting level of swimming.
Tests of legs strokes from buoyancy 12.5m
Test of standing in water.

Thirdly: instruments:

Shoulders board.
Stop watch
Buoying boards.
Ropes (5.10m)
Board of legs strokes.
Buoyancy belt.
Stones and cubes.

quartile and lower of "t" test between higher quartile and lower quartile in physiological tests and basic skills of swimming under research ranged between (3.36, 8.88) in the direction of higher quartile and all are statistically significant values at level of (0.05) meaning that tests are able to differentiate between

different groups.

B – Reliability:

Reliability of physiological tests and basic skills of swimming under research, were calculated by applying test- retest with an interval of (3) days from Sunday 12/2/2012 to Wednesday 15/2/2012 on the pilot sample. Values of correlation coefficients between first – second application in physiological tests ranged between (0.91- 0.096), and in tests of basic skills in swimming ranged between (0.090 – 0.92). They are statistically significant correlation coefficients at level of (0.05) indicating reliability of these tests.

Table (1)

Presenting and discussing the results:

Differences significance between means of pre- post measurements for the experimental group and change rates in variables under research (n = 20)

Variables	Measurement unit	Mean of pre measurement	Mean of post measurement	Mean differences	Differences deviation	"t" value	Sig	Change rate
Cardiac ratio	Impulse / min	81.30	76.90	4.40	3.07	6.41	0.00	5.41
Mean oxygen consumption	millimeters /kg	33.40	35.90	2.50	1.99	5.63	0.00	7.48
Bio capacity	Liter	2.85	3.65	0.80	0.52	6.93	0.00	28.07
Lactic acid	Mill mole	1.90	1.65	0.35	0.45	3.44	0.00	13.16
15 .m swimming	Score	3.60	12.80	9.20	2.37	17.32	0.00	255.55
Starting distance	Meter	1.60	2.81	1.21	0.50	10.70	0.00	75.62
Legs strokes from buoyancy position (12.05 m)	Second	15.60	11.95	3.85	1.27	13.5	0.00	23.40
Standing in water	Min.	1.01	3.20	2.19	0.92	10.59	0.00	216.83

It is shown from table (1) that there are statistically significant differences between means of pre-post measurements for the experimental group in variables under research and in the direction of post measurement where calculated "t" value is greater than it's tabulated value a significance level of (0.05).

Table (2)

Differences significance between means of post measurements for experimental control groups in variables under research (N= 40)

Variables	Measurement unit	Control group		Experimental group		"t" value	Sig
		Mean	Standard deviation	Mean	Standard deviation		
Cardiac ratio	impulse / minute	80.30	1.17	76.90	1.71	7.32	
Mean Oxygen consumption	Millimeters/ kg	34.40	0.75	35.90	1.11	4.97	
Bio- capacity	Liter	2.84	0.32	3.65	0.27	8.59	
Lactic acid	Mill/ mole	1.62	0.14	1.55	0.18	1.27	
15 m. swimming	Score	10.30	2.41	12.80	2.04	3.54	
Starting distance	Score	2.01	0.32	2.82	0.42	6.76	
Legs strokes from buoyancy position (12.05m)	Second	13.45	1.23	11.95	1.28	3.78	
Standing in water	Minute	2.29	0.76	3.20	0.70	3.96	

It is shown from table (2):

There are statistically significant differences between means of post measurements for experimental control groups in basic skills of swimming and variables of (cardiac ratio, mean oxygen consumption, bio- capacity, and in the direction of post measurement for the experimental group where calculated "t" value is greater than tabulated "t" value at significance level (0.05)

There are no statistically significant differences between means of post measurements for experimental control groups in rate of blood lactic acid.

Secondly, discussing the results:

First hypothesis states that there are statistically significant differences between means of pre- post measurements for the experimental group in level of physiological variables (bio – capacity- maximum oxygen consumption cardiac impulse ratio- lactic acid), for female students at Faculty of physical education (experimental research sample).

(Aza 2009, Campbell 2003) To ascertain hypothesis validity, the researcher compared differences results between means of pre- post measurements in tests of some physiological variables (impulse ratio- maximum oxygen consumption bio capacity Lactic acid) on behalf of post measurements for the sample under research, (of the experimental group if they are found. The researcher used test of differences significance between means (T- test) and test of improvement rate on stages of pre- post measurements to recognize improvement level in some physiological variables on behalf of post measurements if they are found after using the suggested educational programs and to know statistical differences significance between means of pre- post measurements.

It is shown from table (1) that there are statistically significant differences between means of pre- post measurements for the experimental group in physiological variables (impulse ratio- maximum oxygen consumption- bio- capacity- lactic acid) in the direction of post measurement. Results of the study accord with studies of " (Lee 2000) that swimming exercises improve the level of physiological traits for sport activities parishioners. The researcher attributes this that body position of learner during swimming in which blood pressure in it's least level during lying because blood runs away the effect of gravity , and that heart beats reduces also, consequently an improvement in the level of physiological efficiency for female students practicing swimming. This is what (Chaw, 2000) (Rodrigues, 2002) confirmed that interested in developing physiological abilities of athletes is one of the most basic requirements by which coach faces during designing training programs. More than that, developing these trait helps in delaying athletes sense of tire as a result of his performance of required physical effort during competition.

It is shown from Table (1) that there are statistically significant differences between means of pre-post measurements for the experimental group in swimming basic skills (15. m swimming standing in water starting distance – legs strokes from buoyancy – standing in water).

The researcher sees that using buoyancy instruments attracted learners attention, stimulated their interest and excitement and forming positive attitudes in work in addition to stimulate learning motivation for them leading to save time and effort and help an acquiring the best skills and improve performance. Using buoyancy aid instruments leads to construct and develop motor perception for learners, consequently improve performance specifications and effect learning speed. This is what she confirmed that aid technical tools used inside water contributed in raising swimmer's efficiency and assuring full functional mobilization.

The researcher sees that variation and using aid instruments well contributed greatly in learners ability on learning speed, skills perfection and that using appropriate modern educational methods help in learning and perfecting skills quickly and increasing effectiveness of swimming lessons.

Results of the study accord with studies of (Bathgate 2007) that using aid buoyancy instruments loads to improve the level of learning swimming basic skills.

It is shown from Table (2) that there are statistically significant differences between means of pre-post measurements for both experimental control groups and in the direction of post measurement for the experimental group in physiological variables (cardiac ratio- mean oxygen consumption – bio-capacity), the level of skilful performance (15. m. swimming standing in water- starting distance – legs strokes from buoyancy – standing in water).

The researcher attributes this to the existence of improvement in level of skilful performance of basic skills and level of some physiological variables for female students (experimental research sample) to using the suggested educational program by using id buoyancy instruments that contribute greatly is learning swimming basic skills quickly and in a good way, by education process regularity within educational lecture, this influenced positively on level of physiological traits for experimental research female students.

Recommendations:

Applying the suggested educational program on swimming female beginners.

Interested in using aid instruments especially buoyancy instruments in learning and training swimming.

Conducting further studies dealing with the effect

of exercises by aid instrument and buoyancy in other swimming and different samples. Conducting further studies dealing with the effect of exercises with instruments in other educational forms and physical and physiological variables for female students.

References

Ali Zaky Mohamed 2002, Swimming technique education training rescue, Datr El Feker El Araby, Cairo.pp.98

Aza Abdel Monsef 2009, The effect of using aquatic exercises on level of some basic movements and buoyancy skills on water for children with cerebral paralysis (C.P)" published scientific research, magazine of Physical education, faculty of Physical education, Assiut University.

Bahgat Abou Tamaa 2007, The effect of using buoyancy aid instruments on educating some basic skills in swimming for students specialized in swimming in published scientific research, magazine of success university for researches, vol. (21), no.(1Palestin,

Campbell, JA, D'- Acquisto, -L-J 2003," Metabolic and Cordova – secular response to shallow water exercise in young and older women ", Medicine and science in sports and exercise, Apr 2003, united states

Chaw, J.W.HAY,J.C.Wilson,B.D&Inele 2000" the impact of training method to wear clothes on the physiological level for swimming chest, back and crawl on the belly " , Journal of sport sciences, Human Kinetics, U.S.A.

Elgohari Y 2003, Quantitative und qualitative corporalevom Training szustand, deer Sport art showier under schiedlichen Blasting menhaden, Inaug. Diss. (Dr. Phil.), Justus-Liebig-Universität Green.pp.8

Essam El Din Abdel Khalek, 2003, Sport training theories application, Moushaet El Marref, Cairo, edition 11, Alexandria .pp35.

Lee, J & Grayston 1991 "The effect of an eight – week aerobic program on defected physiological measurement of females participants" Dissertation Abstracts January

Mahmoud Gamal 2007 The effect of suggested aquatic training program by using special instruments on the level of health related fitness, a doctoral thesis, Faculty of physical education, Jordan university, 2007

Matheus . D . K 1998, Measurement in physical Education ,3 rd edition ,E.B sounders co, pheladelphia , toronto pp125

Mohamed Ahmed Abd Allah 2001, The effect of exercises similar to performance by using some technical apparatus on the level of records for Juniors' unpublished muster thesis, Faculty of Physical education for

Moustafa Kazem, Abou El Ala Abdel Fatah, Usama Rateb 1998, Swimming from the beginning to championship", Dar El Feker El Araby, Cairo.pp235

-Rodrigues – Scartoni, F ; Martin – Dantas 2002 :" the in flu –once of water exercise methodology on the individual physiology responses" , Fitness and performance Journal , Mar/ Apr

Usama Kamel Rateb 1999, Educating swimming, third edition, Dar El Feker El Araby, Cairo.pp 62

-Watah Khanem El Samaedy:2005, The effect of using buoyancy aid instrument in learning free style for beginners, published scientific research, magazine of physical education, El Mawsoul university ,Iraq,

Wesal El Rabdy 2010, The effect of an educational program to improve trunk angle in chest swimming by using macaroni buoyancy instrument, published scientific research, magazine of success university, vo. (24), no. (3), Faculty of physical education, Palestin,pp.65

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 19-23
Original article

A PSYCHOMOTOR PROGRAM TO DEVELOP POSITIVE THINKING SKILLS AND ITS IMPACT ON SELF CONFIDENCE IN OBESE CHILDREN

ALIAA ABDELMONEM[1], RANIA MOHMED ALI QASIM[1]

Abstract

*Purpose.*The research aims to identify the impact of psychomotor program to develop the skills of positive thinking and its impact on self-confidence for obese childrenby age 5-7 years.

Methods. Researchers used the experimental approach using experimental design with two groups, one pilot and one adjuster Pre and Post measurements for its suitability for the application of the research

Results. The data revealed that significant improvement in POSITIVE THINKING SKILLSand self-confidence for children how applied the psychomotor program .

Conclusions. Finally, psychomotor program, for 8 weeks, resulted in an increase in POSITIVE THINKING SKILLSand self-confidence for children. These results have to be taken into account by teachers in order to better understand and implicated of these concepts in movement education lessons.

Key words: psychomotor, self-confidence, obesity.

Introduction.

We have increased concern about obesity among children in early childhood that became a global phenomenon according to the description of the World Health Organization , that increase was not limited to the developing world but also included many of the developed countries alike and despite the fact that there are many different and multiple causes biological , psychological , economical , and social stands behind the obesity problem. (Yahaya, 2000)

Franklin refers (2006) that study for both obesity and movement activity for children during childhood is considered to be one of the research priorities at the present time, especially with the spread of obesity among children of all ages that leads to negative consequences for health. (Franklin, et al.,2006)

Obesity is one of the issues that affects many psychological , social and economic aspects , so we find great and growing interest globally for obesity problem, but locally there is decreasing interest specially in the field of psychological and basic sciences. (Reeves, Teodor, Soren, 2008)

The results of the research associated with obesity refers to psychological and social results that extremely dangerous and bad for that class of obese children who deeply suffer from poor psychological and social adjustment , they are always exposed to psychological pressure as a result for others criticism which leads to feeling of shame , depression and low self-concept. (Jensen, 2004)

Hence, it became necessary to give these children the skills of positive thinking which helps them to gain a positive personality capable of dealing with the future as positive thinking earns child self-confidence and self-reliance, and many of the qualities required and necessary to deal with the challenges of the future. (Fahim, 2005)

And refers Hazzah Mohammed Hazzah (2004) that there is a high probability that obese in childhood stays obese in adulthood and the risk of obesity in adulthood increases steadily as the child became obese after the age of three years old, and that there is a relation between obesity and decreased physical activity for children.(Hazzah, 2004)

Hence, it became necessary to prepare a psychomotor program that helps those children to acquire the skills of positive thinking, which will be reflected on acquiring self-confidence. Thinking positive helps build convictions and beliefs that enables the individual to succeed in solving the problems , it helps the individual to focus on the aspects of success in problem instead of focusing on aspects of the failure. (Marlene, Kelly, 2004)

We can help the obese child to acquire positive thinking by helping the child to identify and recognize his negative thoughts and that can be done by doing a series discussions with the child until we change these negative thoughts, but we should ensure that the child can share in such discussions. (Mohamed, Mona, 2003; Pate, Pfeiffer, 2004)

There are a set of phrases related to positive self talk we can train children to, like - I look beautiful, I've got the will to lose weight, all people must love me, should never disappoint any one, I can run. (Said, 2002; Trost, Sirard, 2003; Alfarhaty, 2005)

The imagination of the thinking process in a certain idea of the mind, which leads to generate a mental image of it, allowing the individual to live with the situation or the case that did not materialize in reality , and that is called Applied Imagination (Kariman, 2006; Kariman, 2005)

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Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST, DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengage Learning, Cabell's Directories

The movement story is a way of role-playing as well as it is a type of exercise in witch a child's imagination determines a form of life based performance that he imitates , This encourage children's imagination, perception and simulation and love for imitation in addition to giving freedom to the child in the movement, creativity and varied activity, the movement story is considered the latest methods of giving movement exercises for young children and the most successful for suitability to their nature and their desires as well as they make them a great deal of joy and pleasure and make them tend to imagination, perception and love of imitation and simulation to gain new culture and sports information. (Ahmed, 2004; Afaf, 2003; Abdel Hamid, 2005)

Positive expectation skill relates to individual beliefs , if the individual predicted that everything he does wrong will lead to the assumption or expectation that it does not benefit from the hard work and here will become unexcited to work and not interested in it. Also, if the child believed that everything he does wrong and he do not succeed in doing a thing this will lead him to failure. (Stallard, 2002)

The researchers undertake such a study in an attempt to identify the "psychomotor program to develop the skills of positive thinking and its impact on self-esteem for obese children".

Methods

Researchers used the experimental approach using experimental design with two groups, one pilot and one adjuster Pre and Post measurements for its suitability for the application of the research thesample Was selected from wadiDegla Club 6 of October city, total sample (38) preschool children , (8) Children used as a sample for the survey, thus the sample basic research were (30) children divided into two equal groups, one pilot and one adjuster each (15) child.

Tools

- Rstamitrto measuring length.
- Medical scales to measure weight.
- An integrated theatre of puppets.
- polymorphic balls.
- sports gaming room in the club .

The tests

- draw men Good enough-Haris to measure intelligence.

Positive thinkingscale

The researchers had designed a positive thinking skills measurement to measure the child's ability to think positive, which is the skills of (self talk, imagination, positive expectation).

Self-confidence scale

The researchers had designed to measure the self-confidence of children the sample included the following dimensions (self accept, pride of accomplishment, self-reliance, endure frustration, accept defeat).

Pilot study.

Scoping study has been applied on (8) Children from outside the research sample for the application of each of positive thinking measurement and self-confidence measurement to make sure the weaknesses of these two scales were avoided.

The Psychomotor program.

A psychomotor program was preparing to develop positive thinking skills in obese children (5: 7) years and to increase their self confidence and that is reflected necessarily on dealing with others, the program included a range of movement activities and stories and role-playing games for a period of 8 weeks, two sessions each week the total for the program 16 session .

The programme foundations:

- Be guided by the results of previous studies when designing the program.

Statistical Analysis.

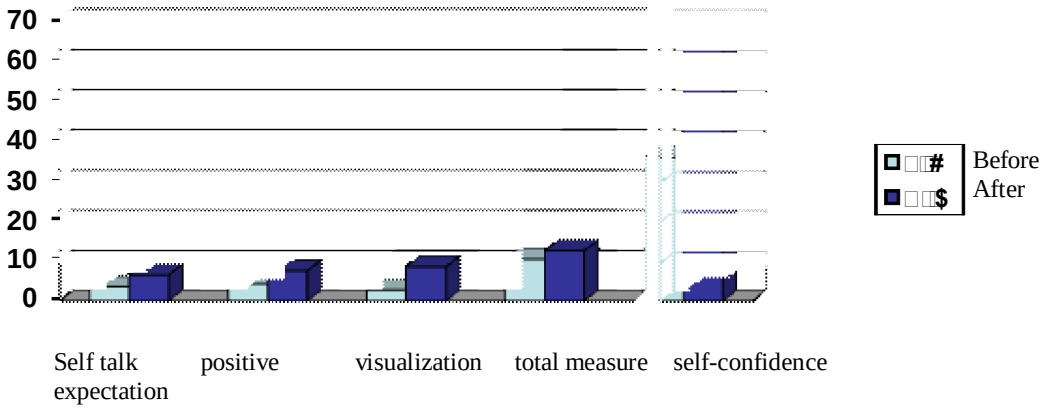
All statistical analyses were calculated by the SPSS statistical package. The results are reported as means and standard deviations (SD). Differences between pre and post measurements were reported as mean difference ±95% confidence intervals (mean diff ± 95% CI). Student's t-test for independent samples was used to determine the differences in parameters between pre and post measurements in the experimental group. The $P<0.05$ was considered as statistically significant.

Results.

Significant differences between the averages of the measurements Pre and Post the Pilot group Determinants of positive thinking and self-confidence scale of n = 15

Determinants	The unit of measurement	Pre measurement		Post measurement		Differences between the averages	Percentage improvement	Value (v) the calculated	The level of significance
		M 1	P 1	M2	P2				
Self-talk	Degree	**3.5**	**0.96**	**6.5**	**1.01**	**2.00**	**%57.1**	***6.25**	Dl
Positive expectation	Degree	**4.2**	**0.68**	**7.5**	**0.96**	**3.3**	**%78.5**	***6.11**	Dl
Visualization	Degree	**2.7**	**0.98**	**5.5**	**1.12**	**2.8**	**%50.90**	***4.12**	Dl
Total measure	Degree	**10.4**	**1.12**	**19.5**	**1.36**	**9.10**	**%87.5**	***5.29**	Dl
Self-confidence	Degree	**35.8**	**4.11**	**66.1**	**3.15**	**30.3**	**%84.63**	**4.15**	Dl

V When tabular 0.05 = 2.26



Significant differences between averages of Pre and Post measurements for the pilot group for Determinants of positive thinking and self-confidence measurement

From Table (1) and Figure (1) the existence of statistically significant differences between the averages of the Pre and Post measurement for pilot group in all determinants of positive thinking scale and for the benefit of post measurement, and ranged improvement between 78.5% for positive expectation to 50.9% for imagination while the level of improvement in the level of self-confidence 84.63%.

Discussion.

According to the results and the improvement .The researcher attributed significant differences between measurements as a result of the application of fingerprinting program proposed by using Psychomotor program which led to improvedpositive thinking and self-confidence.

The researchers attributed this improvement to the children of the group to the application of psychomotor program which takes into account the development of the mental capabilities of children at this stage in the form of group games and more incentive for the children of the research sample.

As for the discussions and movement games positive role in modifying non-useful child ideas into a useful ideas, for example I'm going to my running and I will win, I can stop eating candy, as it was to play roles through the program an important role in a teaching the child to think more positively through the representation of the role of a child can perform all the work by magic argument, "I can do it. (Yahaya, 2000)

The researchers see that the use of movement story has greatly helped in strengthening the positive self-talk, where scenes included many positive words such as I am going to win the competition, I'll be the star child because all my friends love me, I'll complete the game to end.

The researchers see that stories contribute in training children for positive expectation skills by anticipating the end of stories and through participation in sports competitions appropriate to their physical level, that helped them to belief and expect to win

And thus first hypothesis have been achieved, no statistically significant differences between averages of pre and post measurements in the level of positive thinking and self-esteem in obese children of pilot research group.

There is a lack of statistically significant differences between averages of pre and post measurements in the level of positive thinking and self-confidence scale for children adjuster research group.

Researchers see that this is because of unavailability of the psychological foundations for applied motor programs within the nursery and its commitment to the traditional style which depends on the games only, without rationing the method of this games and the possibility of strengthening the psychological aspect of this play and this is what researchers tried to avoid when applying the research psychomotor program.

When we examine the scientific research that went to the study of the levels of physical activity and inactivity in obese children, we find that physically active children have their fat percentage decreases. (Davies, Gregory, 1995)

Thus, the second hypothesis has been achieved which states that there is no statistically significant differences between averages of pre and post measurements in the level of positive thinking and self-esteem in obese children for pilot research group

The existence of statistically significant differences between averages of post measurements of the pilot and the adjuster group in the level of positive thinking and self-confidence measurements for pilot research group.

The researchers attributed this to the application of the research psychomotor program which takes into account the development of the mental capabilities of children at this stage in the form of group games and more incentive for the children of the research sample.

The focus on a diverse learning environment which take into account the interests and the needs of

children, and the use of different raw materials through various activities led to child-raising and attract his attention to participate.

And the diversity of strategies and techniques used in the activities like self positive dialogue, observation and reinforcement intermittent with rewards (material - spirits) in motor activity and repetition in musical, imitation, simulation, role playing, discussions activities and to correct wrong concepts and homework in narrative activity over the development and improvement of self-confidence. (Margherita, 2011)

Researchers see that discussion style and dialogue helped on lighten the minds of the child and to raise some questions with him which are mostly closer to his realistic problems, also take into account to clarify the program activities for children so they are not vague so they begin to feel bored while exercising them, and the sequence and arrangement of ideas and paragraphs program activities in a logical manner helps children practice these activities without feeling bored where motor activity is the first in the morning because the child needs to stimulate circulation and has a stored energy needs guidance in a suitable atmosphere, where the sun's rays at the time beneficial to the body and harmless.

The activity fiction has been exercised in the third period where the child's sense of relaxation and he needs to swim with his mind in a fantasy world full of animals and birds that are easy on the child's to coop with, and this is represented in the general objectives of the stories that were used in the current program which helps to gain self-confidence.

Thus, the third hypothesis has been achieved which states that there were statistically significant differences between the mean dimensions measurements of pilot and adjuster group in the level of positive thinking and self-esteem in obese children of pilot research group.

Conclusions

1 – The psychomotor program has a positive effect on the level of positive thinking for obese children of pilot research group.

2 - The psychomotor program has a positive effect on the level of self-confidence among obese children of pilot research group.

3 - The traditional programs does not have a positive effect on the level of self-confidence among obese children of adjuster research group.

4 - The traditional programs does not have a positive effect on the level of positive thinking in obese children of adjuster research group.

Recommendations .

1 - Applying positive thinking and self-confidence measurement in other studies and in different areas and different age stages.

2 – Care of parents food culture so they care their children health .

3 - Applying the proposed psychomotor program because of its positive effect on obese children.

References.

Abdel, H.S., 2005, Education for children misfits motor and Challenger disability, 2nd Floor, Cairo.

Abdul, S.I., 2011, "Eye of the mind. Cognitive therapist to guide the development of rational thinking positive" Cairo: Dar knowledge.

Ahmed, M.S., 2004, The Psychology of play, the Arab Thought House, 2nd Floor, Cairo.

Ahlam, A.S., 2011, the effectiveness of a training program for positive thinking skills and its impact on the development of some mental and psychological characteristics of children, PhD Thesis, Institute of Educational Studies, University of Cairo.

Alaa, M.R., 2012, "The impact of proposed athletic program on body composition in obese pupils from years 9 - 11 years in Minya, PhD Thesis, Faculty of Physical Education, University of Minya.

Alfarhaty, 2005, "the psychology of children improve against deficits learner" "visions knowledge", Modern Library Publishing and Distribution, Cairo.

Aweys, A.I., 2003, The psychological development of the child, the Arab Thought House, Cairo.

Bader, M.A., 2006**,** The reference in the Personality Disorders, Dar book talk, Cairo.

Byme, N.M.,. HILLS, A.P., 2007, The importance of physical activity in the growth and development of children,Children obesity and Exercise:Prevention treatment and management of childhood adolescent obesities.

Christine, M.S.C., Wen-Chung, W., 2013, Quality of life in overweight and obese young Chinese children: a mixed method study, Health and Quality of Life Outcomes, 11:33.pp.1-11

Ciadi, U.O, et al., 2003, Is obesity Associated with major Depression? Result from the Third National Health and Nutrition Examination Survey,American Journal of Epidemiology, vol.158, NO.12.

Davies, P., Gregory, J., White, A., 1995, Physical activity and body fitness inpreschool children. Int J Obes, 19: 6-10.

Erin, J. et al., 2008, Preschool Child Care Participation and Obesity at the Start of Kindergarten, PEDIATRICS, Vol. 122 No. 2 August 1. Pp.55-62

Fahim, M.M., 2005, "The child and thinking skills in kindergarten and elementary school," Cairo: Dar al-Arab thought.

Fatima, Z.M., 2011, The child's body image fat and slim child and their relationship to social interaction, Master Thesis, Faculty of kindergarten, Cairo University.

Franklin, J. et al., 2006, Obesting and risk of low self esteem A state wide survey of Australian children ,Pediatrics, vol 118, No .6 ,December.

Fulton, J. et al., 2001, Assessment of physical activity and sedentary behavior inpreschool-age children: Priorities for research. PediatrExercSci, 13: 113-126.

Freerk, Y., 2000, The rock and water course: teaching boys Self control, Self respect and Self-Confidence, Family action centre, Australia.

Goldberg, P., 2004, Comp Make-believe, Where kids learn to believe in them selves. Camp make-believe INC.

Hazzah, M.H., 2004, Obesity and physical activity in early childhood over the spread of? What is the relationship between the two?, Feed the children in the Arab States of the Gulf, the Bahrain Center for Studies and Research, Manama, Bahrain.

Howard, T., William, P., 2005, Obesity and student performance at school, Journal of school health ,75,Issue 4,October,291-295.

Ibrahim, A.Q., 2001, Curriculum and the dramatic entrance, the world of books for publication, Cairo.

International Association for the study of obesity, 2004, Prevalence and trends in childhood obesity, Obesity reviews.5,80-97.

Jenifer, G., 2011, Obese kids may face social, Emotional woes. Healthy reporter, Wednesday, Nov,16 , Usnews.com, Healthdaynews.

Jensen, L., 2004, Association between over weight and obesity with Bullying behaviors in school –aged children,Pediatrics ,vol.11,No.5,1187-1194.

Kariman, M.B., 2006, Positive learning and learning difficulties "visions of contemporary educational psychology, the world of books, Cairo.

Khaled, A.R., 2002, The psychological construction of the fat kid "dynamic study" second scientific conference, the child is the best investment for the future of the Arab world, Cairo University, Faculty of Kindergarten 0.598 to 622, Cairo.

Marlene, B., Kelly, D.B., 2004, Obesity and body image, Vol, 1, Issue .1.January.43-56.

Manfra, L., 2007, The effect of speech awareness and speech instructions on young children s self-Talk and cognitive.

Mansy, M.A.K., 2009, the child's self concept kindergarten portly, Journal of childhood kindergarten College, University of Cairo, May .221 to 274.

Margherita, C., et al., 2011, Physical activity and play in kindergarten age children, international Journal of Pediatric Obesity, Special Issue: PERISCOPE Project: Workshop on Physical Activity and Indoor/Outdoor Environment in Kindergartens, Volume 6, Issue S2, pages 47–53, October.

McGrady, M., 2009, Preschool Participation and BMI at Kindergarten Entry: The Case for Early Behavioral Intervention, master degree, University of Cincinnati, Arts and Sciences, USA.

Mohamed, A.R., Mona, K., 2003, "Training children with behavioral disorders, developmental skills," the Arab Thought House, Cairo.

Mohamed, B.M.A., 2009, "Study of cardiorespiratory fitness in children and adolescents obese, PhD Thesis, Faculty of Physical Education, University of Alexandria.

Moore, L., et al., 2003, Does early physical activity predict body fat changethroughout childhood? PrevMed, 37: 10-17.

Multiculture Communication, 2004, Self-esteem in young children under five. Child and youth help, NSW.

Mustafa, A.S., 2004, Self-esteem of the child, the university offices House, ISBN, Kuwait,

National Association for Sport and Physical Education (NASPE), 2002, ActiveStart: A Statement of Physical Activity Guidelines for Children Birth to FiveYears. Reston, VA: National Association for Sport and Physical EducationPublication.

Pate, R., et al., 2004, Physical activity amongchildren attending preschools. Pediatrics, 114: 1258-1263.5

Phillipsen, L., 2006, Expecting the best relation between peer optimism and social competence,Journal of positive psychology,Vol.1 Issue3,Jul.pp.130-141.

Reeves, G., Teodor, T., Soren, S., 2008, Childhood obesity and depression: connection between these Growing children ,I ntj child Health Hum Dev.2008 1(2):103-114.

Said, H., 2002, "The special education for children with behavioral disorders," Dar scientific publication and distribution, Jordan.

Sherman, S.., 2000, ImaginationInflation,Imagining childhood event, inflates confidence that accrued,personality,Social psychology Bulletin vol.11,PP 118-127.

Sjoberg,R., Nillson, K., Ieppert,J., 2005, Obesity,Shame and Depression in school- Aged Children:A population based-study, pediatrics, 116,3,389-392.

Stallard, P., 2002, "Think Good-Feel Good", England: Wiley.

Trost, S., et al., 2003, Physical activity inoverweight and nonoverweight preschool children. Int J Obes, 27: 834-839.

World Health Organization, 2004, Global Strategy on Diet, Physical Activityand Health. WHA57.17. Geneva, Switzerland: WHO.

World Health Organization, 2000, Obesity Preventing and Managing the Global Epidemic Geneva Switzerland 256 .

World Health Organization, 2011, Obesity and overweight. . Fact Sheet,N113, Geneva, Switzerland WHO.

Yahaya, A., et al. 2009, Relationship between Self Concepts and Personality and Students, Academic Performance in Selected Secondary Schools.European Journal of Social Sciences, Vol.11, No.2.

Ykema, F., 2000, "Teaching Boys self control,self respect and self control",New castle Univ,Australia.

Yusuf, S.M., 2008, Study the impact of training on positive thinking and learning strategies in the treatment of the school late in the fourth grade students in the State of Kuwait, PhD, Institute of Educational Studies and Research, University of Cairo.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST, DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengage Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 24-30
Original article

THE RELATIONSHIP BETWEEN THINKING STRATEGIES, PHYSICAL SELF-CONCEPT AND THE PERFORMANCE LEVEL IN CERTAIN INDIVIDUAL AND TEAM ACTIVITIES

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Abstract

Purpose. The objective of this investigation was to identify the relationship between thinking and Physical Self-Concept and the level of skill performance of female players in team games (basketball) and single games (speedball) and to know individual differences between female players in basketball and speedball in thinking strategies and Physical Self-Concept.

Methods. The sample was selected intentionally and randomly and included (50) first class basketball female players represented by Al-Ahly, Al-Gezira and Al-Maady Sporting Clubs and (50) first class speedball female players participated in the Republic Championship in a season in 2011/2012. They used the measurement of height, weight and the test for measurement of the level of performance in speedball by the number of strokes for time added in each position of the individual play. To measure the level of skill performance in basketball the test of passing towards circles (5) times, the test of halt and pivoting, test of forward shot, test of barrier feint were used.

Results. Statistical analyses showed that:

- Significant correlation between thinking strategies and the level of skill performance in basketball.
- Significant correlation between thinking strategies and the level of skill performance in speedball.
- Significant correlation between physical Physical Self-Concept and the level of skill performance in basketball.
- Significant correlation between physical Physical Self-Concept and the level of skill performance in speedball.
- Significant differences between female basketball players and those of speedball in thinking strategies.
- Significant differences between female basketball players and those of speedball in Physical Self-Concept.

*Conclusions.*Using thinking strategies in the skill task and self-talk together with training programs as studies and scientific researches confirmed the importance of such strategies in up-grading the skill level. And Identifying psychological characteristics of female players, particularly Physical Self-Concept as it constitutes an indicator of self-confidence and consequently concentrating on the performance. Add to, Psychological requirements should be categorized for each game.

Key words: Thinking Strategies, Physical Self-Concept, Speedball, Basketball

Introduction

The scientific research of the most important science upon which to develop the communities in order to reach the highest levels in all areas in general, and the field of sports , in particular , and this is by identifying what the gift of God to man of the capabilities and capacities of multiple in an attempt to achieve the greatest benefit from the scientific theories of modern sports field , to achieve high levels of sports in various sports activities this requires the integration of sports in various physical, technical , tactical and psychological and mental health .

(Osama, 1995) noted that the Games individual represented in the speedball you need an opportunity for a merger between the mind (time) and capabilities harmonic and skill which is characterized by high trait anxiety and arousal emotional as well as take responsibility firmly style performance either at the beginning or end of the game A good needs to collect his skills and performance in an integrated and accurate.

(Mohamed, 2000) indicated that each sporting activity requirements and physical skill and tactical and psychological characteristic of all other sporting activities , mass was or individual need to be a high degree of perception and the focus of attention , but to varying degrees , and the mass games , which require those capabilities to the ball game Basketball as contained in the positions of variable contrast requires the player modified his thinking and actions to address these attitudes and this requires a high degree of synergy and compatibility neuromuscular and the accompanying high ability to focus attention to the performance of skill

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appropriate in different situations faced by the player greatest degree of accuracy.

To achieve high levels in various sports activities individual was or collective requires that sports integration in terms of brainpower represented in the thinking strategies with all its capacity to imagine the mental focus attention , relaxation, positive thinking and speaking with the self and the capacity of physical and skill to create a personal player , as well as confidence through self - acceptance to the same physical as it is the first core upon which the personal , as it demonstrates (Osama , 1995) that the individual 's sense that his body, large or small that is attractive strong or weak People who They have a positive perception about their bodies see themselves as more social and intimacy with others and more intelligent

And more able to take responsibility for achieving its goal of achieving tournaments, and to achieve this , too , must That there will be thinking strategies that include control emotions to reduce tensions and stress and anxiety imposed by the conditions of competition , and the lies the importance of strategies to think that behavior has two aspects , one is clear performance apparent to the athlete and the other hidden not see one , namely the ideas that affect an active role on the performance where the result and win the most important concern sports and this is what he referred to the (Mohammed, 2000).

Higher order thinking skills include critical, logical, reflective, metacognitive, and creativethinking. They are activated when individuals encounter unfamiliar problems, uncertainties, questions, or dilemmas. Successful applications of the skills result in explanations, decisions, performances, and products that are valid within the context of available knowledge and experience and that promote continued growth in these and other intellectual skills. Higher order thinking skills are grounded in lower order skills such as discriminations, simple application and analysis, and cognitive strategies are linked to prior knowledge of subject matter content (Tarek, 1993).

Thinking strategy in skillful task is considered the primary part in preparing thinking content, so it is necessary to emphasize performance technical aspects such as the exerted power and reducing feelings of tire or the required motor range, while strategy of mood words For performance was developed to fill out the resultant lack from the difficulty of using the strategy of skillful task content for a long term. These strategies express how to perform through using expressive words of the required motor content (Mohammed, Abdelnabi, 1999).

Most people of average intelligence, given data or some problem, can figure out the expected conventional response. Typically, we think productively, that is on the basis of similar problems encountered in the past. When confronted with problems, we fixate on something in our past that has worked before. We ask, "What have I been taught in life, education or work on how to solve the problem?" Then we analytically select the most promising approach based on past experiences, excluding all other approaches, and work within a clearly defined direction towards the solution of the problem. Because of the soundness of the steps based on past experiences, we become arrogantly certain of the correctness of our conclusion. (Salah, 2000; Ahmed, 2002)

Appropriate teaching strategies and learning environments facilitate their growth as do student persistence, self-monitoring, and open-minded, flexible attitudes.Hence the idea of research , namely, (thinking strategies and physical self-concept and their relationship of performance level in some individual activities represented in ball speed and collective represented in basketball to get to know the extent of the relationship between these variables) .

The research aims to identify:

1. The relationship between thinking strategies and the level of skill of the player's performance in speedball game.
2. The relationship between thinking strategies and the level of skill of the player's performance in basketball.
3. The relationship between physical self-concept and the level of skill of the player's performance in speedball game.
4. The relationship between physical self-concept and level of performance skill of basketball players.
5. Significant differences between speedballplayers, basketball game in thinking strategies.
6. Significant differences between speedballplayers and basketball in physical self-concept.

Material and Methods:

Subjects:

The sample was selected intentionally and randomly and included (50) first class basketball female players represented by Al-Ahly, Al-Gezira and Al-Maady Sporting Clubs and (50) first class speedball female players participated in the Republic Championship in a season in 2011/2012. They used the measurement of height, weight and the test for measurement of the level of performance in speedball by the number of strokes for time added in each position of the individual play. To measure the level of skill performance in basketball the test of passing towards circles (5) times, the test of halt and pivoting, test of forward shot, test of barrier feint were used.

Procedures:

Age, height, weight, intelligence level and performance level were recorded. Height was assessed with a standard tape measure on a wall; weight was measured with household scales.

The tests which used:

- (Hala, 2010) test to measure IQ.

- A test to measure the level of performance skills in ball speed number of strikes for a minute in each mode of play modes four singles (right - left –forward hand–back Hand) .
- Tests measure the level of performance skills in basketball (passing on the circles "5" times to measure the accuracy of the scroll, a conversation about the test to measure the speed barriers conversation,test of front shooting to measure the accuracy of shooting, test of stopping andpivot).
- Scale thinking strategies for **(**Mohammed, 2000) which includes (9) dimensions in addition to (3) the dimensions of the (Ahmed, 2003) adds them to the scale and thus became the scale (12) dimension, every dimension contains eight items, and the dimensions are:
  - Self-talk
  - Thinking due skill
  - Automated
  - Words moods
  - Segmentation performance
  - Building goals
  - Mental visualization
  - Relaxation
  - Stimulation
  - Emotional control

Except for two dimensions (control ofattention focus - positive thinking)each contains four items.

- Items for each dimension are divided into four phrases in the training conditions and the other four in the conditions of competition, except for the two dimensions (control the focus of attention - positive thinking), you may ensure that each of them is only in conditions of competition.

- Have been distributed so that was some phrases in the direction of the dimension and others reverse dimension.

- Developed for each ferry a scale of five scales.

- The total number of phrases scale (88)is, the total score of the scale (440) degrees.

- Physical self-concept scale (HA. Mohamed, 2002).

Exploratory study

The researchers conducted an exploratory study in the period from 20/6/2011 to 23/6/2011 on a sample of the research community and other basic research sample (40) soccer player speed, (40) a basketball player, and to identify the appropriate tools and measuring devices as well as the tests used to apply the sample to determine the time required for the application of the sample and how to understand the instructions of performance, and transactions account for scientific tests.

The results of the exploratory study are:

- Ensure appropriate tools and measuring devices.

- The ease and clarity of physical and skill tests as well as a standard thinking strategy and physical self-concept.

Search application

The researchers applied the tools under the basic sample and in the period from 21 - 28/7/2011 as follows:

- Reel speed tests in the period from 21-24 / 7/2011, in the preliminary competition of the Republic and championships Cairo Stadium.

- Tests of basketball during the period from 25 - 28/7/2011.

Statistical Analysis.

All statistical analyses were calculated by the SPSS.V.16 (Statistical Package for the Social Sciences). The results are reported as means and standard deviations (SD). T Test was used to compare group means in variance analysis results that were found statistically significant. Differences in means were considered if p, 0.05

Results

Table 1. Age, anthropometric characteristics and training experience of the two groups (Mean ± SD)

Variables	Measurement unit	Mean	Standard deviation	Median	Skewness
Age	Year	21.20	2.48	22.00	0.095
High	Cm	174.26	5.89	175.00	0.59
Weight	Kg	71.52	9.27	72.00	0.25
Intelligence	Degree	124.94	2.59	125.00	0.25
Performance level	Degree	25.00	1.93	25.00	0.15

Table 1 shows the age and anthropometric characteristics of the subjects. There were no significant differences were observed in the sample.

Table 2. Mean ±SD and T sign between Speedball players and Basketball players in scale of strategic thinking

Variables	Speedball players		Basketballplayers		T sign between two groups
	Mean	SD	Mean	SD	
Self- talk	32.62	±5.022	31.72	±4.12	No Sign
Thinking due skill	32.36	±3.85	2.39	±27.48	Sign
Words moods	31.38	±4.24	28.72	±4.12	Sign
Segmentation performance	29.42	±4.04	29.28	±3.29	No Sign
Building goals	31.04	±3.61	31.22	±4.14	No Sign
Mental visualization	29.94	±3.42	30.20	±3.94	No Sign
Relaxation	30.00	±3.78	28.70	±2.67	Sign
Stimulation	25.42	±3.57	29.90	±4.30	Sign
Emotional control	29.64	±3.96	28.50	±2.63	No Sign
Automated	29.58	±3.65	28.24	±5.81	No Sign
Control of attention focus	13.52	±1.72	13.02	±1.33	No Sign
Positive thinking	14.70	±1.88	13.48	±3.02	Sign
Total	25.36	±2.17	24.69	±2.33	No Sign

The t-test showed significant differences (P≥ 0.05) between speedball players and basketball players inThinking due skill, Words moods, Relaxation, Positive thinking for speedball players and the Stimulation for basketball players,No significant differences between speedball players and basketball players in Self- talk, Segmentation performance, Building goals, Mental visualization, Emotional control, Automated, Control of attention focus and the total of strategic thinking scale.

Table 3. Mean ±SD and T sign between Speedball players and Basketball players in scale of Physical Self-Concept

Variables	Speedball players		Basketball players		T sign between two groups
	Mean	SD	Mean	SD	
Physical Self-Concept	81.82	± 7.80	88.42	± 13.83	Sign

The t-test showed significant differences (P≥ 0.05) between speedball players and basketball players in Physical Self-Concept for basketball players.

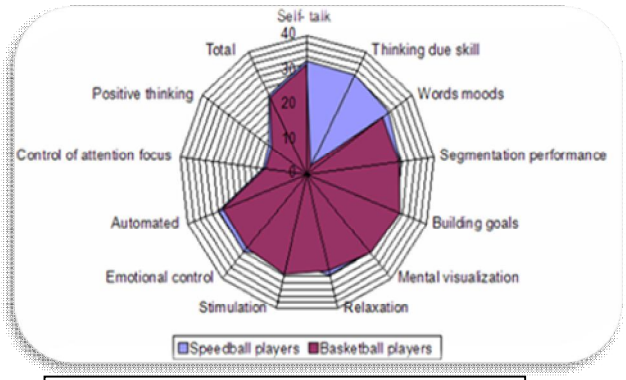

Fig 1 explain the differences between Speedball playersand Basketball playersin scale of strategic thinking

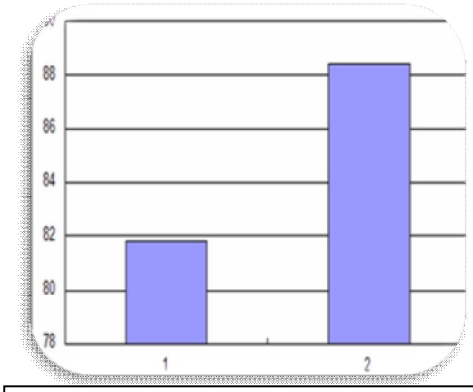

Fig 2 explain the differences between Speedball playersand Basketball playersin scale of Physical Self-Concept

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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Table 4. Correlation coefficients between the axes scale strategic thinking and performance Levelfor speedball players

No.	Variables	Performance Level
1	Self- talk	0.172
2	Thinking due skill	0.518
3	Words moods	0.486
4	Segmentation performance	0.642
5	Building goals	0.427
6	Mental visualization	0.439
7	Relaxation	0.293
8	Stimulation	0.060
9	Emotional control	0.463
10	Automated	0.209
11	Control of attention focus	0.426
12	Positive thinking	0.445
13	**Total**	0.553

R = 0.288

Table (4) showed that there is a Correlation in the variables (Thinking due skill, Automated, Words moods, Segmentation performance, Building goals, Mental visualization, Relaxation, Emotional control, control of attention focus , positive thinking)in addition to strategic thinking as a whole scale) withskill level, while there is no correlation between (self-talk and Stimulation) withperformance Level.

Table 5. Correlation coefficients between the axes scale strategic thinking and performance Level for basketball players

No.	Variables	Performance Level			
		Passing	Shooting	Dribble	Stopping & pivot
1	Self- talk	0.696	0.543	0.579	0.353
2	Thinking due skill	0.332	0.345	0.379	0.324
3	Words moods	0.436	0.384	0.505	0.238
4	Segmentation performance	0.250	0.084	0.375	0.456
5	Building goals	0.596	0.362	0.264	0.291
6	Mental visualization	0.527	0.389	0.150	0.283
7	Relaxation	0.497	0.311	0.261	0.340
8	Stimulation	0.411	0.471	0.308	0.214
9	Emotional control	0.401	0.515	0.317	0.300
10	Automated	0.326	0.321	0.112	0.316
11	Control of attention focus	0.339	0.352	0.400	0.580
12	Positive thinking	0.350	0.480	0.402	0.400
13	**Total**	0.624	0.544	0.466	0.459

R = 0.288

Is clear from Table (5) that there is a correlation between the variables (Self- talk - Thinking due skill - Emotional control - Control of attention focus - positive thinking - in addition to scale strategic thinking as a whole) with Passing,Shooting, Dribble and Stopping & pivot, while therea link between the words moods and Passing, Shooting, Dribble and there was no link between them and the stop-and-pivot, and also no correlation between retail performance and Dribble and stop and build and there is between them and the Passing and Shooting, and there is a link between the Building goals and vision and mental relaxation mechanism and both the passing and shooting and stop and build and there is no link between them and the Dribble.

Discussion

The purpose of this study was to determine the relationship between thinking and Physical Self-Concept and the level of skill performance of female players in team games (basketball) and single games (speedball) and to know individual differences between female players in basketball and speedball in thinking strategies and Physical Self-Concept.

Recent research has suggested that the effects of sport on well-being are mediated by psychological characteristics such as thinking strstegy and physical self-concept, instrumentality and positive body images; in addition, sport was found to be related to these psychological benefits for athletes. However, physical self-concept played a central role by mediating the sport -body image and sport instrumentality relationships. Positive body image and instrumentality, in turn, predicted greater psychological well-being. The purpose of this investigation was to replicate earlier studies, and to examine these relationships with non-sport physical activity. Sport and physical activity were expected to contribute to higher physicalself-concept, which in turn, would contribute positively to instrumentality and body image.

(Najla, 2002) indicated that positive thinking helps the athletes to address the problems encountered efficiently, and earned self-confidence.

(Hala, 2010) adds that positive thinking gives the individual a state of inner happiness by allowing the individual to deal with the problems faced by non-stereotypical manner.

Our results are confirmed with (Miller, Levy, 1996) reported levels of positive physical appearance and athletic competence to be higher for athletes compared to non athletes. In a related study, (Raudsepp, et al. 2002) found higher perceptions of sport competence, strength, and conditioning among adolescents who participated in moderate physical activity compared to adolescents who did not engage in any physical activity. In addition, (Sonstroem, 1997) provided strong evidence that physical activity and exercise are related to higher levels of physical competence.

Conclusions

- The presence of a statistically significant correlation between thinking strategies and the skill level of the players ball speed.
- The presence of a statistically significant correlation between thinking strategies and the skill level of basketball players.
- The presence of a statistically significant correlation between physical self-concept and skill level in football speed.
- The presence of a statistically significant correlation between physical self-concept and skill level in basketball.
- The presence of significant differences between football players, basketball speed in thinking strategies.
- The presence of significant differences between football players, basketball speed in physical self-concept.

Recommendations

The researchers recommended the following:

- The use of thinking strategies on duty skills and self-talk side by side with the training programs where studies have shown the importance of scientific research on these strategies in upgrading skills.
- To identify the psychological characteristics of private players accept self as an indicator on self lifah and therefore the focus of the performance.
- The work of the classification of mental requirements for each game of sports.
- Conduct studies to determine the level of self accept as they affect the level of ambition and self-confidence of the players.

References

Ahmad, F., 2004, Basketball for youth, College of Physical Education in Cairo, Alexandria University.

Ahmed, K.H., 2002, The electrical activity of the brain as a function of the effectiveness of strategies to develop the thinking level of performance and reduce the pressures Sporting, Faculty of Physical Education for Boys, Helwan University.

Ahmed, Y., 2003, The impact of the program on improving the mental perception the peaceful performance level in basketball , Volume VIII , Issue II , Journal of Sports Arts and Sciences , Faculty of Physical Education for Girls in Cairo , Helwan University .

Elizabeth, M., 2007, Psychological benefits of sport participation and physical activity for adolescent females, Dissertation Prepared for the Degree of doctor of philosophy , university of north texas.

Hala, A., 2010, The effect of the proposed training program for the harmonic capabilities susceptibility emerging kinetic ball speed under 14 years old, Master Thesis, Faculty of Physical Education, University of Almonofiyah

Mohammed, S.H., 2000, Thinking strategies in sports competitions, the Egyptian Society for Mathematical decrease, Cairo

Mohammed, S.H., Abdelnabi, E.L., 1999, Sports psychology and psychometrics, the center of the book for publication, Cairo.

Mohamed, H.A., 2002, Sports training, Arab Thought House, Cairo.

Mohamed, S., 2000, Measurement and Evaluation in Physical Education, Part II , fourth edition, the Arab Thought House .

Miller, J., Levy, G., 1996, Gender role conflict, gender-typed characteristics, selfconcepts, and sport socialization infemale athletes and nonathletes. Sex Roles, 35, 111-122.

Najla, F., 2002, Effective use of strategic thinking in the development of confidence and the level of performance sports in cannula exercises I have some students of the Faculty of Physical Education , University of Menoufia, Ph.D. thesis , unpublished , Faculty of Physical Education , University of Almonofiyah .

Osama, R., 1995, The Psychology of Sports Concepts applications, the first edition, the Arab Thought House, Cairo.

Raudsepp, L., Liblik, R., Hannus, A., 2002, Children's and adolescents' physical selfperceptions as related to moderate to vigorous physical activity and physical fitness. Pediatric Exercise Science, 14, 97-106.

Salah, M,. 2000, Patterns of some university student leaders and their relationship with physical self - concept and some personality traits Master, wild college sports for girls in Cairo, Helwan University.

Sonstroem, R., 1997, The physical self-system: A mediator of exercise and self-esteem. In K. R. Fox (Ed.), The physical self: From motivation to well-being(pp. 3-26). Champaign, IL: Human Kinetics.

Tarek, A., 1993, Effects of weights training program on some elements of fitness for basketball, Master Thesis, unpublished, Faculty of Physical Education for Girls in Cairo, Helwan University.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
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DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengage Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 31-37
Original article

ASPECTS REGARDING THE RELATIONSHIP BETWEEN TECHNICAL TRAINING AND SOMATIC, FUNCTIONAL AND MOTOR PARAMETERS, AT HANDBALL PLAYERS

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Abstract

Purpose. The purpose of this study is to observe the influence of somatic, functional and motor parameters upon the game's technique, at senior handball players. On the second place, correlations were made between the somatic and functional parameters and the motor ones.

Methods. The study was performed on 30 athletes aged between 19 and 31 years old (M = 24.2, SD = 3.23). There were applied 31 tests, as follows: technical (30m dribbling among poles, Throwing the ball from distance, Throwing the ball towards the wall and recatching it - version I and II, Throwing the ball at a fixed target - version I and II, Slalom dribbling), somatic (height, wingspan, hand length, thoracic perimeter, chest elasticity, weight), functional (the heart rate, the breathing rate, the vital capacity, the Lorentz resistance index, the Ruffier test, the Sargent test) and motor (5x30m, triangle movement, „the Combined", long jump from a stationary position, detent, penta-jump, abs, 2x400m, 800m, sprint test).

Results. From the 257 correlations between these variables, the value for $r \geq 40\%$ was recorded for 51 of them. The rarest correlations were found between somatic parameters and technical parameters (4), functional parameters and technical parameters (4), but also between functional parameters and motor parameters (3). Most correlations are between technical parameters and motor parameters (30).

Conclusions. The training for developing technical executions is based on improving the motor behavior of athletes that gives them many opportunities to solve unexpected situations that arise during a match. This concept is demonstrated by the close connection between the technical parameters and the motor ones (30 correlations, where **r** has values between 41% and 78%). As the results show, the technical test results are the most influenced by the level of abdominal strength development and speed running, while functional variables have a weak influence on motor and technical skills, in our case. The somatic parameters, although they have an insignificant direct influence on the technique, they manifest more strongly in the case of motor skills. These conclusions should be accepted with care, as it concerns only this group of athletes, while the obtained correlations indicate the degree of association between the used variables and not the cause of those connections.

Keywords: handball, technique, motor skills, somatometry.

Introduction

Handball is an attractive sportive team game with a highly dynamic character and a high degree of accessibility, due to the fact that it is based on a synthesis of basic motor skills such as running, jumping, throwing and relatively simple specific skills (Ghermănescu, Gogâltan, Jianu, Negulescu, 1983; Rizescu, 2000; Hantău, 2002; Mihăilă, 2004). Physical training, along with the tactical, psychological and theoretical one arms the athlete for high intensity moments of the game (Epuran, Holdevici, Toniţa, 2001). The technique provides a high economy and efficiency in the execution of movements. Learning the technique is accomplished in three ways: perceptual-motor learning (sensorimotor), motor learning and intelligent-motor learning (Epuran and Holdevici, 1993; Dragnea, 1993).

The motor aptitudes are underlying the motor abilities, and the last ones in their turn are the essence of the development of technical training (Acsinte and Alexandru, 2000; Rizescu and Ciorbă, 2008; Cicma, 2011). Thus, automating motor actions based on correct learning frees the athlete's attention and allows the athlete to focus its attention on choosing the right tactical decisions (Roman and Batali, 2007; Baştiurea, Stan, Mihăilă, 2013).

For this study, it can be assumed that there is a relationship at a certain level between somatic, functional, motor variables and technical variables in the game of handball.

Methods

Subjects

There were 30 senior handball players aged between 19 and 31 years old (M = 24.2, SD = 3.23) who participated in this study. Please note that all athletes had good health condition to perform the tests correctly and with maximum efficiency.

Testing procedure

The following sets of tests were applied for all athletes, for which, in table 1, there can be found the abbreviations used in the paper:

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Table 1. Abbreviations used in the paper	
Test	ABBREVIATIONS
Technical training testing (Romanian Handball Federation [FRH], 1998; Baştiurea, 2007)	
30m dribbling among poles	**30 DP**
Throwing the ball from distance	**TBF**
Throwing the ball towards the wall and recatching it - version I and II	**TBT**
Throwing the ball at a fixed target - version I and II	**TBFT**
Slalom dribbling	**SD**
The somatic development testing (Gheorghiu and Olăroiu, 1998; Tarabas, 1999)	
Height	**H**
Wingspan	**WSP**
Length of the hand	**LH**
Thoracic perimeter	**TP**
Chest elasticity	**CE**
Weight	**W**
The functional capacity testing (Gheorghiu and Olăroiu, 1998; Tarabas, 1999; Cordun, 2009)	
The cardiac frequency	**CF**
The breathing frequency	**BF**
The vital capacity	**VC**
The Lorentz resistance index	**LOR**
The Ruffier test	**RUFF**
The Sargent test	**SARG**
Motor training testing (Romanian Handball Federation [FRH], 1998; Baştiurea, 2007)	
5x30m	**5x30**
Triangle movement	**TM**
„The Combined"	**TC**
Long jump from a stationary position	**LSP**
Detent	**DT**
Penta-jump	**PTS**
Abs	**ABS**
2x400m	**2x400**
800m	**800**
Sprint test	**TS**

The description of technical tests

30m dribbling among poles

Seven poles are positioned in a straight line along the handball court (the first pole at a distance of 6m from the start line, the last pole at a distance of 6m before the finish line, and between these two poles, at a 18m distance, the other five poles are placed at a distance of 3m from one another) within a distance of 30m. The athlete must complete this distance motor the ball in a multiple dribbling, among the poles, in slalom. The ball must always be controlled by the athlete, without it being caught or thrown forward. Two runs are executed and the best time is taken into account.

Throwing the ball from distance

The ball (of handball) will be thrown away after executing a three-step dash from behind the line drawn on the ground. This line should not be touched, stepped on or exceeded before the ball is thrown from the pitcher's hand. For the dash, the cross-step or added-step technique will be used. Two attempts are allowed and the best result will be appreciated. The result will be expressed from 50 to 50cm and the obtained values will be more or less rounded.

Throwing the ball towards the wall and recatching it - version I

At the signal, the athlete who is 3m away from a wall, throws the ball towards the wall and recatches it for 1 minute, without it falling on the ground. When time is up, the timer is stopped and the number of passes made by the athletes is recorded.

Throwing the ball towards the wall and recatching it - version II

At the signal, the athlete who is 3m away from a wall executes against time 20 passes towards the wall, without the ball falling on the ground. After completion of the 20 passes, the timer is stopped and the obtained time is recorded.

Throwing the ball at a fixed target - version I

On a wall, a handball gate is drawn. This has in the four corners, squares with 30cm sides (figure 1). Three meters away from the wall, there is an athlete, who, at the signal, will throw the ball towards the wall and

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recatch it (the throwing order is from number 1 to 4). The timer will be stopped when the athlete will complete 16 throws (four throws in every corner). Note that during the test, the ball is not allowed to fall on the ground.

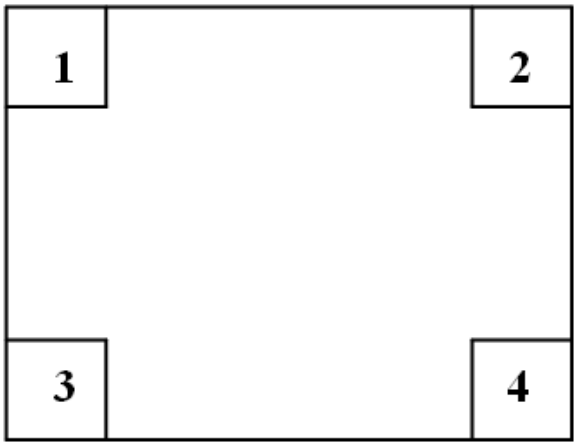

Figure 1. Throwing the ball at a fixed target

Throwing the ball at a fixed target - version II

On a wall, a handball gate is drawn. This has in the four corners, squares with 30cm sides. Three meters away from the wall, there is an athlete, who, at the signal, will throw the ball towards the wall and recatch it for 30 seconds (the throwing order is from number 1 to 4). At the end of the test, the professor records the number of throws executed.

Slalom dribbling

On the ground, a square with 5m sides is drawn. At its' corners, it is marked with poles and in the middle with another pole (figure 2). A full track of multiple dribbling is executed, bypassing the poles in the indicated direction of the arrows. The timer will be started when the athlete begins the test and will be stopped after he crosses the finish line.

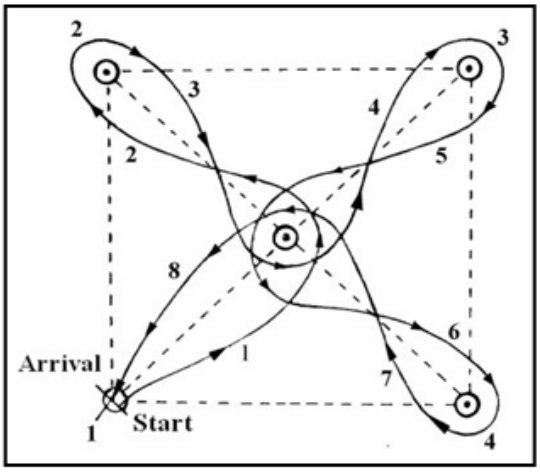

Figure 2. Slalom dribbling

Results

The collected data was processed using SPSS program v. 20 for Windows. A correlation was conducted to examine the relationship between the analyzed variables. From the 257 correlations between these variables, the value for $r \geq 40\%$ was recorded for 51 of them. Confidence coefficient for statistical significance is 95%.

The rarest correlations were found between somatic parameters and technical parameters (4), functional parameters and technical parameters (4), but also between functional parameters and motor parameters (3). Most correlations are between technical parameters and motor parameters (30).

It can be noticed in table 2, the four correlations with values over 40% achieved between somatic parameters and technical parameters.

Table 2. Correlations made between somatic parameters and technical parameters

	H	W	WSP	CE	LH
30 DP	0.28	0.31	0.26	0.01	0.01
TBF	**0.45**	-0.13	**0.46**	0.24	-0.15
TBT 1	-0.34	-0.33	-0.25	0.02	0.02
TBT 2	**0.41**	0.16	**0.42**	-0.11	0.23
TBFT 1	0.35	0.20	0.34	0.03	0.17
TBFT 2	0.17	-0.22	0.28	0.37	-0.28
SD	0.37	0.22	0.37	0.28	0.13

The values represent the correlation's percentage between somatic parameters and technical parameters; $p<0.05$.

30 DP, 30m dribbling among poles; **TBF**, Throwing the ball from distance; **TBT**, Throwing the ball towards the wall and recatching it - version I and II; **TBFT**, Throwing the ball at a fixed target - version I and II; **SD**, Slalom dribbling; **H**, Height; **W**, Weight; **WSP**, Wingspan; **CE**, Chest elasticity; **LH** – Length of the hand.

The values of correlations between functional parameters and technical parameters are very low (table 3). Only four correlations with values over 40% can be noticed.

Table 3. Correlations made between functional parameters and technical parameters

	CF	BF	VC	RUFF	SARG	LOR
30 DP	0.04	0.03	-0.14	0.01	-0.18	0.03
TBF	0.25	0.34	**0.41**	0.28	**0.43**	**0.42**
TBT 1	0.11	0.13	0.29	0.02	0.31	0.23
TBT 2	0.22	0.10	0.14	0.20	0.17	0.14
TBFT 1	0.02	0.01	0.02	0.02	0.02	0.05
TBFT 2	0.13	0.04	0.39	0.12	**0.40**	0.36
SD	0.21	0.14	0.01	0.18	0.01	0.01

The values represent the correlation's percentage between functional parameters and technical parameters; $p<0.05$.

30 DP, 30m dribbling among poles; **TBF**, Throwing the ball from distance; **TBT**, Throwing the ball towards the wall and recatching it - version I and II; **TBFT**, Throwing the ball at a fixed target - version I and II; **SD**, Slalom dribbling; **CF**, The cardiac frequency; **BF**, The breathing frequency; **VC**, The vital capacity; **RUFF**, The Ruffier test; **SARG**, The Sargent test; **LOR**, The Lorentz resistance index.

In table 4, that includes correlations between the values of the motor parameters and technical parameters, is clearly observed the density of values $\geq 40\%$. It is thus demonstrated the idea that motor ability is the basis of the perfect technical executions.

Table 4. Correlations made between motor parameters and technical parameters

	DT	5x30	TM	TC	LSP	PTS	ABS	2x400	800	TS
30 DP	0.05	**0.50**	**0.49**	**0.55**	0.04	0.01	**-0.52**	**0.56**	0.36	**0.52**
TBF	**0.44**	**-0.41**	-0.28	-0.21	**0.47**	**0.44**	**0.46**	-0.14	-0.13	0.02
TBT 1	0.01	-0.35	-0.31	0.10	0.12	0.10	**0.59**	**-0.66**	-0.14	**-0.59**
TBT 2	0.02	**0.43**	**0.44**	0.37	0.12	0.06	**-0.62**	0.26	0.14	**0.48**
TBFT 1	-0.20	**0.50**	**0.54**	0.32	-0.12	-0.12	**-0.42**	0.34	**0.40**	**0.59**
TBFT 2	0.01	-0.28	-0.11	-0.17	0.13	0.21	**0.41**	-0.27	0.05	**-0.44**
SD	-0.10	**0.43**	**0.41**	**0.46**	0.03	0.07	**-0.78**	0.37	0.23	**0.55**

The values represent the correlation's percentage between motor parameters and technical parameters; $p<0.05$.

30 DP, 30m dribbling among poles; **TBF**, Throwing the ball from distance; **TBT**, Throwing the ball towards the wall and recatching it - version I and II; **TBFT**, Throwing the ball at a fixed target-version I and II; **SD**, Slalom dribbling; **DT,** Detent; **TM**, Triangle movement; **TC**, The Combined; **LPS**, Long jump from a stationary position; **PTS**, Penta-jump; **ABS**; Abs; **TS,** Sprint test.

In table 5, only three correlations between motor parameters and functional parameters with values over 40% can be observed.

Indirect influence on somatic parameters upon technique can be observed through their direct relation with the motor parameters (table 6).

Table 5. Correlations made between motor parameters and functional parameters

	DT	5x30	TM	TC	LSP	PTS	ABS	2x400	800	TS
CF	-0.03	0.12	-0.01	0.23	0.01	0.07	**-0.45**	0.07	0.25	0.01
BF	0.01	0.10	0.29	0.20	0.04	0.09	**0.43**	0.03	0.03	0.03
VC	0.07	-0.11	-0.15	0.04	0.23	0.17	-0.08	0.03	0.05	-0.05
RUFF	-0.05	0.15	0.03	0.21	0.01	0.05	**-0.43**	0.10	0.24	0.03
SARG	0.15	-0.20	-0.22	-0.03	0.33	0.22	0.08	-0.10	0.01	0.08
LOR	0.08	-0.09	0.15	0.02	0.21	0.17	-0.14	0.03	0.09	-0.02

The values represent the correlation's percentage between motor parameters and functional parameters; $p<0.05$.

CF, The cardiac frequency; **BF**, The breathing frequency; **VC**, The vital capacity; **RUFF**, The Ruffier test; **SARG**, The Sargent test; **LOR**, The Lorentz resistance index.; **DT,** Detent; **TM**, Triangle movement; **TC**, "The Combined"; **LPS**, Long jump from a stationary position; **PTS**, Penta-jump; **ABS**; Abs; **TS,** Sprint test.

Table 6. Correlations made between motor parameters and somatic parameters

	DT	5x30	TM	TC	LSP	PTS	ABS	2x400	800	TS
H	**0.49**	-0.13	0.05	-0.07	**0.62**	0.50	0.20	0.18	0,10	0.36
W	0.02	0.37	0.24	0.28	0.04	-0.13	-0.27	**0.42**	0.13	0.33
WSP	**0.41**	-0.16	-0.05	-0.01	**0.59**	**0.51**	-0.21	0.17	0.20	0.33
CE	**0.47**	-0.35	-0.13	-0.34	**0.49**	**0.53**	**0.53**	0.04	-0.07	-0.17
LH	0.05	0.06	0.01	0.15	0.13	-0.09	-0.23	0.06	-0.16	0.27

The values represent the correlation's percentage between somatic parameters and motor parameters; $p<0.05$.

H, Height; **W**, Weight; **WSP**, Wingspan; **CE**, Chest elasticity; **LH** – Length of the hand; **DT,** Detent; **TM**, Triangle movement; **TC**, "The Combined"; **LPS**, Long jump from a stationary position; **PTS**, Penta-jump; **ABS**; Abs; **TS,** Sprint test.

After studying the tables above, the following results can be reviewed:

- Correlations between somatic parameters and the technical ones have had as significant marks, size and wingspan.
- Correlations between functional parameters and the technical ones have had as significant marks, VC, SARG and LOR.
- Correlations between motor parameters and the technical ones have had as significant marks, 30 values ≥ 40%. Except for a single technical test, all other values were significant in relation to the abdomen and speed.
- Correlations between functional parameters and the motor ones have had significant marks, also for the tests related to the abdomen
- Correlations between somatic parameters and the motor ones have had as significant marks, DET, SAR, PENT, ABS and 2x400.

Discussions

Handball is a contact sport where strength, speed and endurance overlap and complement each other harmoniously for the high level of performance game (Chaouachi et al., 2009; Baştiurea, Stan, Acsinte, 2013). Studies show that somatic parameters, with few exceptions, have no significant influence on the technical execution (Mohamed et al., 2009; Baştiurea, Stan, Mihăilă, Creţu, 2011). It can be noted, in this case, that the somatic parameters have, however, an impact on the motor skills, and hence indirectly, on the technique of the game. Somatic aspects can be a strong point, especially in the selection and allocation of players on game positions (Gabbett, 2002; Vescovi, Brown, Murray, 2006). The most significant correlations with all technical tests are found in the case of abdomen and speed. These results are also supported by other authors who have conducted studies in this area (Milanese, Piscitelli, Lampis, Zancanaro, 2011; Gorostiaga, Granados, Ibañez, González-Badillo, Izquierdo, 2006; Gorostiaga, Granados, Ibañez, Izquierdo, 2005).

In fact, one can discuss the important role of the vertical muscle chains of the straight abdominal muscles (rectus abdominis), antagonistic to the extensor muscles of the spine and of the two strong oblique muscle chains that intersect, forming with the oblique muscle chains of the dorsal trunk some spiral chains. Thus, the muscle chain of the external oblique muscle from one part continues with the fiber direction of the internal oblique from the opposite side and in the back side of the trunk it continues with the

transversospinalis system on the same side (Nenciu, 2005).

The role of anti-gravitational forces in the development of motor skills, and hence the technical execution can be a permanent problem for coaches and even for physical education teachers aimed to study the various movements and improving executions.

Conclusions

The training for developing technical executions is based on improving the motor behavior of athletes that gives them many opportunities to solve unexpected situations that arise during a match. This concept is demonstrated by the close connection between the technical parameters and the motor ones (30 correlations, where **r** has values between 41% and 78%). As the results show, the technical test results are the most influenced by the level of abdominal strength development and speed running. Functional variables have a weak influence on motor and technical skills, in our case. The somatic parameters, although they have an insignificant direct influence on the technique, they manifest more strongly in the case of motor skills.

These conclusions should be accepted with care, as it concerns only this group of athletes, while the obtained correlations indicate the degree of association between the used variables and not the cause of those connections.

References

Acsinte, A., Alexandru, E., 2000, Handball. From initiation to performance. Bacău: Media™ Publishing House;. 175 p.

Baştiurea, E., 2007, Handball. Concepts, principles and ways to improve the training. Galaţi: Academica Publishing House;. 145 p.

Baştiurea, E., Stan, Z., Mihăilă, I., Creţu, N.. 2011,The influence of anthropometric parameters and muscle-joint mobility on the speed of execution in the game of handball. Journal of Physical Education and Sport Mart 20;11(1):94-101.

Baştiurea, E., Stan, Z., Mihăilă, I., 2013, The influence of somatic, functional and motor parameters on coordination at handball players. 6th Annual International Conference „Physical Education, Sport and Health 2013 22-23 Nov;17(1):163-168.

Baştiurea, E., Stan, Z., Acsinte, A., 2013,The importance of coordination in technical training specific to handball players. The Annals of the University "Dunarea de Jos", Fascicle XV: Physical Education and Sport Management;2:Galati. Forthcoming.

Chaouachi, A., Brughelli, M., Levin, G., Boudhina, NBB, Cronin, J., Chamari, K.,2009, Anthropometric, physiological and performance characteristics of elite team-handball players'. Journal of Sports Sciences 2009Ian 15;27(2):151-157.

Cicma, IT. 2011. Experiment on the growth rates of development of specific game of handball motor qualities, trough specific means athletics, to juniors II echelon. The Annals of the University "Dunarea de Jos" Galati, Fascicle XV: Physical Education and Sport Management 2011;1:219-223.

Cordun, M. 2009, Kinanthropometry. Bucharest: CD PRESS Publishing House; 2009. 347 p.

Dragnea, A., 1993, Sports training. Theory and methodology. Vol. I. Bucharest: ANEFS; 1993. 231 p.

Epuran, M., Holdevici, I., Toniţa, F., 2001, Psychology in performance sport. Theory and practice. Bucharest: FEST Publishing House; 2001. 467 p.

Epuran, M., Holdevici, I., Psychology. Bucharest: ANEFS; 1993. 280 p.

Romanian Handball Federation (FRH). Newsletter 5. 1998; 6-9.

Gabbett, TJ. 2002, Physiological characteristics of junior and senior rugby league players. British Journal of Sports Medicine 2002 Oct;36(5):334-339.

Gheorghiu, A., Olăroiu, M., 1998, Functional investigations in family medicine practice. Bucharest: ALL Publishing House; 1998. 250 p.

Ghermănescu, KI., Gogâltan, V., Jianu, E., Negulescu, I. 1983,Theory and methods of handball. Bucharest: Didactical and Pedagogical Publishing House; 1983. 304 p.

Gorostiaga, EM, Granados, C., Ibañez, J., Izquierdo M., 2005, Differences in physical fitness and throwing velocity among elite and amateur male handball players. International Journal of Sports Medicine 2005 Apr;26(3):225-232.

Gorostiaga, EM., Granados, C., Ibañez, J., González-Badillo, JJ., Izquierdo, M., 2006, Effects of an entire season on physical fitness changes in elite male handball players. Medicine and Science in Sports and Exercise 2006 Feb;38(2):357-366.

Hantău, C. 2002, Handball. The defense game. Bucharest: Printech Publishing House; 2002. 148 p.

Mihăilă, I., 2004, Handball. Differentiated specific physical training. Republic of Moldova. Chişinău: Valinex SA Publishing House; 2004. 158 p.

Milanese, C, Piscitelli, F, Lampis, C, Zancanaro, C. 2011, Anthropometry and body composition of female handball players according to

competitive level or the playing position. Journal of Sports Sciences 2011 Iul 19;29(12):1301-1309.

Mohamed, H., Vaeyens, R., Matthys, S., Multael, M., Lefevre J, Lenoir M, Philippaerts R. 2009, Anthropometric and performance measures for the development of a talent detection and identification model in youth handball, Journal of Sports Sciences. 2009 Feb 1;27(3):257-266.

Nenciu, G. 2005, Biomechanics in physical education and sport. General aspects. Bucharest: The Foundation of the tomorrow Romania Publishing House; 2005. 128 p.

Rizescu, C. 2000, Handball. Constanţa: Ovidius University Press; 2000. 154 p.

Rizescu, C., Ciorbă, C., 2008,Technical training of novice handball players. Ovidius University Annals. Series: Physical Education and Sport/Science, Movement and Health 2008;8(2):491-496.

Roman, G., Batali, FC., 2007, Sports training. Theory and methodology. Cluj: Napoca Star Publishing House; 2007. 398 p.

Tarabas, CL. 1999,Functional exploration techniques in the practice of sports medicine specialist. Brăila: Evrika Publishing House; 1999. 185 p.

Vescovi, JD., Brown, TD., Murray, TM., 2006, Positional characteristics of physical performance in Division I college female soccer players. Journal of Sports Medicine and Physical Fitness 2006 Iun;46(2):221-226.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 38-44
Original article

THE EFFECTS OF KINESIOTHERAPY ON RECOVERY SPEED FOR WOMEN WITH CERVICAL DISCECTOMY

ESSAM GAMAL[1]

Abstract

Purpose. Kinesiotherapy is the application of scientifically based exercise principles adapted to enhance the strength, endurance, and mobility of individuals with functional limitations or those requiring extended physical conditioning. The aim of this study was to determine the effect of 8-week Kinesiotherapy on recovery speed for women with cervical discectomy.

Methods. (18) women with cervical slipped disc cases after surgery to have it Demerdash University Hospital, and the ages ranged between(35: 45) years,(4) womento pilot study was conducted and(2) women have been disposed for irregular qualifying program and thus become basic research sample (12) women.

Results. The results Showed statistically significant differences between the three measurements for the experimental group in all variables.

Conclusions. Finally, (8) Weeks of Kinesiotherapyprogram can improve flexibility, strength and reduce the neck pain.

Key words: Kinesiotherapy- flexibility- strength – neck pain

Introduction

Neck pain from more health problems prevalent, where there is hardly anyone except complain of them at some time during his lifetime, the neck is a member of a vital and sensitive are those which connects the head to other parts of the body, where it passes through the bone marrow, nerves and blood vessels feeding the brain, head and face as they factor strut and fulcrum of the head.

As a result of scientific and technological progress became the man moves with his mind more than his body moves , becoming modern machines do most of the work was carried out by rights , which leads to the weakness of the muscles and ligaments on both sides of the cervical spine .

According to (Jull, et al. 2009) that the habits acquired for the person causing stress constant neck muscles,as stay long hours behind the wheel and in front of the computer and the large number of convexity and bending forward while working office, all of this leads to the weakness of the muscles and ligaments on both sides of the cervical spine, exposing the cervical spine neck for many health problems and troubles.

And confirms (Mokhtar, 1987) that more areas of the spine vulnerable to injury is the area of the cervical and lumbar region , and the reason that they are more spine in terms of movement and use , the burdens located them significantly compared to other paragraphs .

(David, 1979) indicated that the neck area contains many pain - sensitive tissues, due to the complexity of the nervous system pathways exposing them to injury and pain sensation
caused by diseases and infections paragraphs.

And refers (Thomas, 1985) to the neck pain that appear in the three areas as follows:

- The highest neck pain. It is the pain extends to the back of the skull and arises from the point of contact of the neck skull in the first and second paragraphs.
- Connected neck pain shoulder. A mother extends from the neck to the shoulder and sometimes affects the efficiency of the arm.
- Setelevator muscle syndrome symptoms palette is pain arising from the connection point of the neck area greatness of the board as a result of myocardial contractility board, as well as the upper part of the muscle, pain may occur on one side or on both sides.

And confirms (Barbara 1990) to be infected area cervical lead to limited in range of motion, and thus the difficulty in the movement of the neck accompanied by pain in the middle of it may extend the pain to the back of the head with the emergence of some numbness and loss of feeling in some of the parties, may end results of the examination to be injury may be ligaments or muscles.

Kinesiotherapy is the application of scientifically based exercise principles adapted to enhance the strength, endurance, and mobility of individuals with functional limitations or those requiring extended physical conditioning.

Kinesiotherapy is a somato-therapeutical activity

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using model, goal-aimed movement programs. Performing these requires an active participation of patient; it works not only with the biological part of a personality but also with the psychic one and with social relations. Kinetic exercise could only be considered as a therapy when it is goal-directed and focused on somato-psychical influence of psychical disorders.

Kinesiotherapy is defined as the application of scientifically based exercise principles adapted to enhance the strength, endurance, and mobility of individuals with functional limitations or those requiring extended physical conditioning.

Kinesiotherapy is a gentle method of exercise and has great practical application in a wide range of chronic diseases and injuries.

As a method it has several advantages since it is considered one of the best ways for prevention and treatment.

In essence, it enables the patient to "cure himself" through an exercise program that may include:

- Active / passive exercises
- Balance and coordination exercises
- Exercise in Equipment
- Relaxation techniques
- Mobilization techniques, etc.

Kinesiotherapy applies to all ages, and at the same time is "adjusted" for each individual separately, so as to "minimize" the potential for deterioration or injury and meet the needs of each individual.

The intervention process includes the development and implementation of a treatment plan, assessment of progress toward goals, modification as necessary to achieve goals and outcomes, and client education. The foundation of clinician-client rapport is based on education, instruction, demonstration, and mentoring of therapeutic techniques and behaviors to restore, maintain, and improve overall functional abilities.

Through the scientific studies in the Egyptian environment and within science researcher , it was observed that most of the studies on spinal injuries especially cervical vertebrae focused on the causes of infection and how to treat them and put some exercise qualifying them , as noted researcher lack and scarcity of studies that dealt with injuries cervical vertebrae after surgical intervention especially for women, and reviewing the researcher to doctors some spine surgery hospitals found through personal interview that there are a large number of cases of disease carried them

Operations of a herniated disc my neck and they are most in need of Physiotherapy apply a physical to complete the success of the surgery and the recovery speed of recovery in a short time , and to meet with the researcher to some specialists physical therapy and physical rehabilitation to see the problems that you meet with patients during a rehabilitation their confirmed the existence of a large number of patients dropping out of complete qualifying program prepared for them, and this is what called researcher to develop a treatment program apply a Conquer codified (Kinesiotherapy) for fast recovery healing treatments surgically from slipping herniated cervical in a short time in order to continue patients infected with the completion of the program qualifying without feeling tired and the stress and boredom of program lengthening the time period especially that the time period of the previous rehabilitation programs ranging between three months and more .

Hence, the researcher hopes that this study will serve as new scientific in how quickly restore the healing of surgical treatments of the cervical slipped disc.

- Reduce the pain level ofcervical region after surgically processors for ladies of the cervical slipped disc.
- Improved dynamic range and flexibility of the cervical region in all directions in the research sample of surgically processors ladies of the cervical slipped disc.
- Increase the strength of the muscles of the cervical region and the surrounding muscles in the research sample of surgically processors ladies of the cervical slipped disc.

Methods

(18) women with cervical slipped disc cases after surgery to have it Demerdash University Hospital, and the ages ranged between (35: 45) years, (4) women to pilot study was conducted and (2) women have been disposed for irregular qualifying program and thus become basic research sample (12) women.

Terms choose the research community:

- To be with cervical herniated slide and held them to remove the cartilage surgically slider.
- The sample has successfully passed the surgery laparoscopic surgical intervention for the first time.
- Aged (35: 45) years.
- No suffer from any diseases or other injuries of the spine.
- That you have a firm desire to undergo the experience and attendances were obtained written consent from them.
- Is submissive to any other treatment program.

Devices used in the measurements:

- Measuring Height.
- Measurement of weight / using the Medical balance.
- Measuring muscle strength / using dynamometer.
- Measuring neck Dynamic range / using a Filksometer.

Tools used during the search application:

- Electrical stimulation device (AC).
- Ultrasound device.

- Treadmill.
- Ergometer Bike.
- Swedish seats.
- Stopwatch.
- Graded intensity weights.

Training Protocol.

The 8-weeks in-season Kinesiotherapy program consisted of**.**

- Taking into account the warm - up and initialization commensurate with the nature of the injury.
- The sequence of exercises from easy to difficult and from the simple to the complex.
- Taking into account the flexibility during the application of the program and its ability to change without prejudice to the scientific underpinnings of the program.
- The program applies an individual basis according to the state and date of attendance of each member of the search.
- Time kidney to implement the program (2) a month , divided into three phases (the first phase of three weeks, and the second stage two weeks and the third stage three weeks) .
- Subject to give adequate rest periods between rehabilitation units.

Stages of the program:

The program was divided in terms of implementation into three phases (the first phase of three weeks and the second stage two weeks and the third stage three weeks).

- Phase I: containing electrical stimulation, ultrasound and therapeutic massage (screening superficial - deep screening) and a set of static exercise intensity gradient.

This phase aims to:

- Alleviating postoperative pain.
- Stimulate blood circulation and lymph place of injury and the surrounding parts.
- Work on alert and stimulate nerves and muscles is not working and that in order to prevent these muscles atrophy.

- Phase II: containing electrical stimulation, ultrasound and therapeutic massage (screening superficial - and screening deep) also contain static and dynamic exercises intensity gradient.

This phase aims to:

- Degree of pain relief and increased dynamic range and flexibility of the cervical spine.
- Stimulate blood circulation and lymph place of injury and the surrounding parts.
- Development of fixed muscle strength to the muscles of the neck.

Phase III: containing electrical stimulation and therapeutic massage (screening superficial - and screening deep - vibratory) and exercise rehabilitation dynamic gradient intensity, whether in the form of therapeutic free or tools or devices with the work of exercises public and private to improve the efficiency of the spine and its flexibility.

This phase aims to:

- Stimulate blood circulation and lymph place of injury and its surrounding parts.
- Work to increase the dynamic range and flexibility of the cervical spine.
- Strengthen the muscles of the neck and surrounding muscles.

Basic study:

The program has been applied therapeutic rehabilitation on research sample in the period of 24 / 2 / 2013 to 11/08/2013 , and was the individual application for (2) months from the date of taking pre - measurements , was taking into account the sequence of measurements common to all members of the research sample .

Pre- measurements

Tribal measurements were made on a sample search in the period from 24/2/2013 to 11/6/2013; measurements were taken in the following order:

1 - Measure the total length of the body in centimeters.

2 - Measurement of body weight in kg.

3 - Measurement of motor term flexibility of the cervical spine in all directions.

4 - Measuring muscle strength to the muscles of the neck in all directions.

Consecutive measurements:

Was the work of measurements longitudinal after three weeks of program implementation therapeutic qualifying in the period from 17/03/2013 to 03/07/2013 so as to know the extent of progress in achieving the objectives of the first phase in terms of easing the degree of pain and swelling and inflammation resulting from the impact of the procedure, and stimulate blood circulation and lymph place of injury, measurements were taken with the same way pre-measurements.

Post-measurements:

Post- measurements were working on the sample after the completion of the implementation of the program and that was after the end of the eighth week , during the period from 23/4/2013 to 10/8/2013 , measurements were taken with the same arrange pre-measurements and tracking .

Statistical analysis

All statistical analyses were calculated by the SPSS statistical package. The results were reported as means and standard deviations (SD). The data were analyzed by ANOVA and Tuky-test to determine the differences. $P<0.05$ was considered as statistically significant.

Results:

Table 1. Show distributed of the study universe

Participations	Universe	Rejected	Main sample	Pilot sample
women with cervical slipped disc	18	2	12	4

Table 2. Age and anthropometric characteristics of the group (mean ± SD).

Variables	Measur. unit	Mean	SD.	Median	skewness
Age	Year	40.25	3.36	40	0.22
High	Cm	162.69	5.92	164	- 0.665
Weight	Kg	79.63	7.54	80	-0.149
Cervical pain in the region	Degree	6.19	0.83	6	0.674
Dynamic range to drape neck (front)	Degree	16.19	3.39	16	0.166
Dynamic range to drape neck successor (back)	Degree	20.13	3.90	19	0.866
Dynamic range to drape neck (right)	Degree	19.44	3.72	19	0.353
Dynamic range to drape neck (left)	Degree	15.75	3.02	16	-0.248
Dynamic range to neck rotation (right)	Degree	14.63	1.90	14.5	0.198
Dynamic range to neck rotation (left)	Degree	13.06	1.77	12	1.802
Muscle strength to the muscles of the neck drape (front)	Kg	1.92	0.52	1.9	0.109
Muscle strength to the muscles of the neck drape (back)	Kg	1.98	0.53	1.8	0.996
Muscle strength to the muscles of the neck drape (right)	Kg	1.93	0.48	2	- 0.434
Muscle strength to the muscles of the neck drape (left)	Kg	1.95	0.49	1.8	0.913
Muscle strength of rotation of the neck (right)	Kg	1.84	0.31	1.75	0.836
Muscle strength of rotation of the neck (left)	Kg	1.91	0.39	1.9	0.048

Table 2.ShowedNo significant differences were observed for the subjects.

Table 3.Mean ± SD and "F" sign between the three measurements for the experimental group incervical pain and physical tests.

Variables			Sum of squares	DF	Mean square	F
1	Cervical pain in the region	Between groups	145.39	2	72.69	Sign
		Within groups	11.5	33	0.348	
		Total	156.89	35		
2	Dynamic range to drape neck (front)	Between groups	5798.72	2	2899.36	Sign
		Within groups	558.25	33	16.92	
		Total	4771.06	35		
3	Dynamic range to drape neck successor (back)	Between groups	4771.06	2	2385.53	Sign
		Within groups	583.17	33	17.67	
		Total	5354.22	35		
4	Dynamic range to drape neck (right)	Between groups	2746.72	2	1373.36	Sign
		Within groups	843.83	33	25.57	
		Total	3590.56	35		
5	Dynamic range to drape neck (left)	Between groups	3273.39	2	1636.69	Sign
		Within groups	481.83	33	14.60	
		Total	3755.22	35		
6	Dynamic range to neck rotation (right)	Between groups	3870.5	2	1935.25	Sign
		Within groups	358.25	33	10.856	
		Total	4228.75	35		
7	Dynamic range to neck rotation (left)	Between groups	4467.17	2	2233.58	Sign
		Within groups	512.83	33	15.54	
		Total	4980	35		
8	Muscle strength to	Between groups	65.34	2	32.67	Sign

	the muscles of the neck drape (front)	Within groups	10.33	33	0.313	
		Total	75.67	35		
9	Muscle strength to the muscles of the neck drape (back)	Between groups	48.91	2	24.46	Sign
		Within groups	12.42	33	0.38	
		Total	61.33	35		
10	Muscle strength to the muscles of the neck drape (right)	Between groups	54.16	2	27.08	Sign
		Within groups	7.92	33	0.24	
		Total	62.08	35		
11	Muscle strength to the muscles of the neck drape (left)	Between groups	66.89	2	33.44	Sign
		Within groups	11.45	33	0.35	
		Total	78.33	35		
12	Muscle strength of rotation of the neck (right)	Between groups	76.03	2	38.01	Sign
		Within groups	5.21	33	0.16	
		Total	81.24	35		
13	Muscle strength of rotation of the neck (left)	Between groups	83.77	2	41.89	Sign
		Within groups	8.63	33	0.26	
		Total	92.40	35		

Table 3.Showed statistically significant differences between the three measurements for the experimental group in all variables.

Table 4.Mean ± SD and "Tuky" sign between the three measurements.

Variables		Measurements	Mean	Pretests	Consecu-tive tests	Posttests	Tuky
1	Cervical pain in the region	Pretests	6.08		2.66	4.91	0.593
		Consecutive tests	3.42			2.25	
		Posttests	1.17				
2	Dynamic range to drape neck (front)	Pretests	16.85		15.09	31.09	4.13
		Consecutive tests	31.67			16	
		Posttests	47.67				
3	Dynamic range to drape neck successor (back)	Pretests	21		16.25	28.08	4.22
		Consecutive tests	37.25			11.83	
		Posttests	49.08				
4	Dynamic range to drape neck (right)	Pretests	20.42		9.25	21.33	5.08
		Consecutive tests	29.67			12.08	
		Posttests	41.75				
5	Dynamic range to drape neck (left)	Pretests	15.92		10.75	23.33	3.84
		Consecutive tests	26.67			12.58	
		Posttests	39.25				
6	Dynamic range to neck rotation (right)	Pretests	14.75		10.25	25.25	3.31
		Consecutive tests	25			15	
		Posttests	40				
7	Dynamic range to neck rotation (left)	Pretests	13.42		10.66	27.08	3.96
		Consecutive tests	24.08			16.42	
		Posttests	40.5				
8	Muscle strength to the muscles of the neck drape (front)	Pretests	2.03		1.44	3.29	0.562
		Consecutive tests	3.47			1.85	
		Posttests	5.32				
9	Muscle strength to the muscles of the neck drape (back)	Pretests	2.04		0.96	2.81	0.616
		Consecutive tests	3			1.85	
		Posttests	4.85				
10	Muscle strength to the muscles of the neck drape (right)	Pretests	1.92		1.36	3	0.492
		Consecutive tests	3.28			1.64	
		Posttests	4.92				

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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11	Muscle strength to the muscles of the neck drape (left)	Pretests	2.07		1.07	3.27	0.592
		Consecutive tests	3.14			2.2	
		Posttests	5.34				
12	Muscle strength of rotation of the neck (right)	Pretests	1.9		1.33	3.53	0.399
		Consecutive tests	3.23			2.2	
		Posttests	5.43				
13	Muscle strength of rotation of the neck (left)	Pretests	1.93		1.61	3.73	0.514
		Consecutive tests	3.54			2.12	
		Posttests	5.66				

Table 4.Showed statistically significant differences between the three measurements to the experimental group in all variables for the Pretests.

Discussion

Due researcher that the differences between the three measurements (tribal and tracking and a posteriori) and increase the percentage of improvement in the level of pain in the region cervical to the proposed program, which has been applied in a manner regulated on the research sample, where the researcher believes that the speed of dealing early with the rehabilitation of injury , especially after surgery , as well as appropriate therapeutic exercise for the nature of the injury , and contain a fixed exercise program and how negative the injured joint exercises dynamic animation and variety in terms of intensity and volume , rest periods and also contain the program on the method of therapeutic massage helps to relieve pain ratio .

Due to the use of electrical stimulation and shortwave , because for them the impact of the increased activity of the circulatory system and expand the arteries and veins in the affected area , and reduce the inflammation and joint pain rheumatic and reduce the sensation of pain in the affected part, and consistent results of this study with the study of (Yasser, 2005; Hamdy, 2006; Safaa, 2007; Ahmed, 2010, Khaled, 2012) to exercise rehabilitative and therapeutic massage and treatment alarm electrical help to stimulate blood circulation place of injury and heating deep tissue , which helps to reduce and eliminate pain.

The study confirms (Sherman, et al. 2009) the massage process is safe and has clinical benefits in the treatment of severe neck pain.

It also indicates (Mario – Paul, 1999) that the massage technique survey light, and survey the deep technology effectively reduces the presence of conglomerates muscle small and helps to extend the muscles tight in addition to promoting blood circulation, which helps to get rid of the pain area cervical vertebrae.

The researcher believes that physical therapy motor rated with therapeutic massage helps to relieve and remove the mother's neck after removing cartilage cervical , and is consistent with the study (Laurie, 2003; Naheed, et al. 2006) indicates that manual therapy massage and exercise rehabilitation inhalers proved in the treatment of neck pain in the shortest time.

also pointed (Kadri, 2000) to the that inhalers movement therapy aimed a natural means in the field of full treatment and the use of various types of motor physical therapy through physical exercise works to strengthen and improve the general condition of the patient.

And refers both (Jerrilyn, et al. 2006; Abkkar,2008; Sefton, et al. 2010) indicate that therapeutic massage helps to get rid of waste and sediment in the affected parts of the body, also helps on improving the function of the skin and stimulate blood circulation infected portions.

Through the previous display researcher believes that the proposed program has had a positive impact on increasing the flexibility of the cervical spine of the neck -term motor of the neck in all directions , and thus have been achieved imposition Second Search , which provides that " the existence of statistically significant differences between the measurements and tribal consecutive and a posteriori to increase the motor run of the cervical vertebrae in all directions and these differences were in favor of the dimensional measurements of the sample .

The result of a study agrees with the study of both (Hamdy, 2006; Safaa, 2007) to rehabilitative exercises improve and increase the range of motor and muscle strength of the muscles working on the neck.

As consistent results of the study with both (Laurie, 2003; Jerrilyn, et al. 2006), where indicated these studies indicate that exercise rehabilitation and therapeutic massage for two major impact in reducing neck pain and improve motor run and muscle strength to the muscles of the neck and back.

Also due researcher improvement in the strength of the neck muscles to therapeutic massage and short-wave electrical stimulation, which leads to increase the range of motor and works to increase the capacity of muscle to receive exercises strengthening and flexibility are the highest, as an increase in flexibility and rubber muscles allow an increase susceptibility muscle to further strengthen them, as Therapeutic

massage helps to increase muscle Alert and raise the ability to contraction.

Through the previous display is clear that the proposed program has a positive impact on improving and increasing muscle strength to the muscles of the neck in all directions.

Conclusions:

In light of the objectives and results of the study researcher reached the following conclusions:

- that the program (proposed Kinesiotherapy) has a positive effect on the degree of pain relief and increase muscle strength and motor run to the muscles of the neck and surrounding muscles .
- to contain the proposed program is a set of exercises for to increase the flexibility of the region cervical and development of muscle strength of the neck and surrounding muscles in addition to the use of therapeutic massage and use of shortwave and alarm effective in the rehabilitation of the cervical spine neck after surgical intervention as a result of sliding herniated cervical.

References

Abkkar, T., 2008, Massage therapy of the Lumbar spine" Wolfe Publishing, 9th ed, London.

Ahmed, S., 2010, The rehabilitation program for the treatment of pain points bombing cervical muscles region " unpublished master's message , Tanta University.

Barbara, S., 1990, Sport Physical Therapy of Congress Cataloging P.T 317- 322.

Cambron, JA., Dexheimer, J., Coe, P., 2006, Changes in blood pressure after various forms of therapeutic massage: a preliminary study, journal of Alternative and Complementary Medicine .12(1)65-70.

Cooper, MT, Mcgee KM, Anderson DG., 2003, Epidemiology of athletic head and neckinjuries.Clin Sports Med.22:427-443.

David, G., 1979, Clinical Features of Arm and Neck pain Chartered Society physiotherapy, Journal Vol. 65 No 4.

Field, T., 1998, Massage therapy effects international of sports medicine", Wilkins, 2thed, U.S.A.

Fitz–Ruston, D., 1995, Physical exercises of cervical rehabilitation after whip-lash trauma manipulative physical.

Hamdy, R., 2006, The impact of rehabilitative exercises using the program to treat the neck tensile " message unpublished MA , Faculty of Physical Education , University of Tanta.

Jull, GA., Falla, D., Vicenzino, B., Hodges, PW., 2009, The effect of therapeutic exercise on activation of the deep cervical flexor muscles in people with chronic neck pain". Manual Therapy, 14(6):696-701.

Kadri, B., 2000, Sports injuries and rehabilitation talk, the center of the book for publication,Cairo.

Khalid, A., 2012, The effectiveness of therapeutic massage and rehabilitative exercise in the treatment of chronic muscle contraction of the muscles of the neck , MA , College of Physical Education for Boys , Cairo .

Laurie, B., 2003, Passive in treating neck pain, manual therapy best for neck pain Human Kintetics, 5th Ed, London.

Mario – Paul, C., 2004, Hand Book of Massage Therapy: A Complete Guide for Students and Professionals, 3th ed, Churchill Livingstone

Mokhtar, S., 1987, Stadiums injuries , Dar of Mars sports Cairo .

Naheed, T., Akbar, N., Chaudhry, M., 2006, Neck pain- A problem with major effects "journal of Medical Sciences, 22(2), PP.188-190.Cited 1 time Pakistan,.

Pollock, ML., Graves JE., Bamman MM., Leggett, SH., Carpenter DM., Carr, C., Cirulli, J., Matkozich, J., Fulton, M., 1993, Frequency and volume of resistance training: effect on cervical extension strength, Arch Phys Med Rehabil, Oct;74(10):1080-6..

Safaa, A., 2007, Effectiveness of exercise and some modern therapeutic means to get rid of muscle contraction of the muscles of the neck ladies (25 - 30 years), Master, College of Physical Education for Girls, Helwan University.

Sefton, M., Ceren, Y., Jack W., David D., 2010, Therapeutic Massage of the Neck and Shoulders Produces Changes in Peripheral Blood Flow When Assessed with Dynamic Infrared Thermography, Journal of Alternative, complementary Medicine. 16(7):723-32.

Sherman, KJ, Cherkin DC, Hawkes RJ, Miglioretti DL, Deyo RA. 2009, Randomized trial of therapeutic massage for chronic neck pain, Clinical Journal of pain, 25 (3): 233- 8.

Thomas, L., 1985, Folia rheumatologic, the Painful neck, Ciba Geigy Limited, Switzer Land.

Weber, H., 1997, An evaluation of conservative and surgical treatmentof lumbar disc protrusion. J Oslo City Hosp, 20(6):81-93

Yasser, Z., 1996, The efficiency of the various conditions of the neck with intermittent tensile cervical vertebrae in morbidity cervical nerve roots, Master Thesis, Faculty of Physical Therapy, University of Cairo.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 45-50
Original article

GENOTYPEOF ANGIOTENSIN CONVERTING ENZYMEFOR ELITE FEMALE TAEKWONDO PLAYERS IN EGYPT

GEHAN ELSAWY[1], AFAF SHABAN[1]

Abstract

Purpose. Despite the worldwide popularity of amateur taekwondo, research focused on the physiological demands of the sport is limited. The physiological profile of elite female taekwondo players is presented. The purpose of the present investigation was to describe the physiological profile of elite female taekwondo players.

Methods. With the Local Ethics Committee approval, (11) international standard female TKD fighters provided written informed consent and participatedin this study. All participants were members of Egyptian National Taekwondo Team. All of them have trained TKD for at least (7) years. Three different women weight categories (up to 51, up to 55and up to 59) were included in the study.

Results. The present study provides that DD Frequencyis (4 -36%), ID Frequencyis (5- 45%) and II Frequencyis (2- 18%).Adding no statistically significant differences in chi – square test between the three types of angiotensin converting enzymegene for elite female taekwondo players.

Conclusions. No correlation coefficient between the three types of angiotensin converting enzymegene and physical characterizes for elite female taekwondo players. This information is also available to the coaches and can contribute to the general strategy employed by taekwondo players and for a specific match.

Key words: female taekwondo players, ferritin, hemoglobin

Introduction

The world scientific live revolution may be the most serious scientific revolution in the world and revolutionized molecular biology and so for its uniqueness is not available in any scientific breakthrough last in human history , most scientific discoveries , particularly in the field of biology was concerned mainly the interpretation of what is happening in the universe , and the revolution biology the Twin molecular and quickly between interpretation and change through genetic engineering updated so great practical achievements racing everyone to know and take advantage of them in multiple domains(David, et al. 2001).

According (Abu Ella, 2003) that molecular biology has become one of the topics of scientific, which grow very quickly at the present time , which is defined as the study of structures and molecular factors behind the biological processes, are no longer Physiology sport and training is limited to just study the physiological changes on the level of vital organs only, but the nature of recent studies have evolved until it reached the level of study of those changes at the cellular level and what is inside the cell from ovate and wicks and other muscle , and it came as a natural inherent in the rapid evolution of scientific discoveries in the field of molecular biology .

And asserts (Essam, 2002) that the time has come to begin to look at scientific depth on the science of molecular biology and its relation to sports performance and sports science education .

(Schneider, et al. 2002) stressed the importance of the application of molecular biology in the field of sports in order to improve physical performance.

Has begun to identify for the first time that DNA is the genetic material in 1928, after a famous experiment conducted by Griffith, and in which he pointed out that there is a substance that can change the genetic makeup of the bacteria. It was verified that this article is DNA "acid cell nucleus" in 1944 by two American (Avery and McLeod). Then many other experiments were carried out after that, all of which proved that (DNA) carries the genetic traits that coordinate all biological processes in the living cell.

There is evidence that genetic factors account for around 50% of variability in human physical performance. However, data supporting this position are not definitive. Research from studies of sport expertise indicates that differences between experts and non-experts in cognitive sports are found only in domain-specific, information-processing abilities that are primarily the result of training. (Hopkins, 2001)

A polymorphism of the human angiotensin-1-converting enzyme (ACE) gene has been identified in which the presence (insertion, I allele) of a 287-bp fragment rather than the absence (deletion, D allele) is associated with lower ACE activity in serum and tissues (Danser, et al. 1995). The I allele has been

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associated with endurance performance, being found with excess frequency in elite distance runners (Keavney, et al. 2000), rowers (Gayagay, et al. 1998) and mountaineers (Montgomery, et al. 2003). In contrast, others have found no such association (Karjalainen, et al. 1999; Rankinen, et al. 2004; Taylor, et al. 1999). The common denominator among the negative studies is the inclusion of athletes from mixed sporting disciplines, thereby producing phenotypic heterogeneity. (Taylor, et al. 1999) examined 120 Australian national athletes from sports deemed to demand a high level of aerobic fitness (26 hockey players, 25 cyclists, 21 skiers, 15 track and field athletes, 13 swimmers, 7 rowers, 5 gymnasts and 8 "other"). They found no difference in ACE genotype and allele frequency compared with controls. The need subsequently to exclude five gymnasts and a further eight athletes thought not to require an excellent level of aerobic fitness for their chosen sport before further analysis suggests that their original cohort was not a true representation of elite endurance athletes (and made no difference to the result). Similarly, the cohort examined by (Karjalainen, et al. 1999) of 80 elite endurance athletes from Finnish national teams included the various disciplines of long-distance running, orienteering, cross-country skiers and triathlon's. They found no relationship between these athletes and the ACE I/D polymorphism.

And refers (Hussein, Shalaby 2003) that the nucleic acids that are isolated from the cell nucleus , including The name , which long chains of units repeated called Nyuklutid, one of the cellular components important , so do not reside in the red blood cells , but are separated of white blood cells to the presence of a nucleus inside, and there are genes within chromosomes dubbed (genetics cart) , a thin filament , located inside the 23 pairs of human chromosomes and by identifying the (X , Y) is determined by gender

And adding that matched each gene on the other chromosome peer- called gene Allele, and genetic traits can either be prevalent any that Gina qualities of the same force or recessive if Gina qualities is not the same force. (Saul, et al. 2001)

(Hopkins, 2001) indicated that the language of life is four letters written by each picture of life which (A, T (U), C, G) are a rules nitrogen make up the DNA , all organisms are similar in those letters, and differ only in the arrangement .

According (Mohamed, 2002) that the differences in the genetic predisposition which distinguish individuals mathematically from last is subsequently affect the overall performance during training and competition.

And adds (Munief , 2003) that the gene is the basic genetic units that contribute to determine the characteristics of each individual gene discovery provided the media of the scientists know and evolution of the objects and functions.

The genetic factors is an important aspect of the selection process , where that access to high -level sports is the result of interactions between genetic factors and environmental factors .

And refers (Essam, 1999) that the choice of the emerging and directed the activity appropriate not yet up to the accident, but has become the selection process that has a scientific basis could be reached as a result strenuous efforts in this field, and if guided coach scientific method in the selection of athletes will help it in development level and raise the level of achievement in the future.

(Folland, et al. 2000) indicates that the genetic techniques as a method for the selection of talented and work on their development became joined the broad interest in the field of sports

And refers (Amr, 2008) to that in spite of that molecular biology is considered one of modern science , which stormed the sports field strength , in addition to being one of the main pillars of which has become reliable in achieving the feat sports, but sports scientists disagreed in determining the significance compared knowledge of sports training, some of whom felt that molecular biology is the most important sports training , especially when interpreting the performance differences between the players where (Mufti, 2000) that although the athletic training affects the physiology of the body , but that factor genes a major role in the level of the player, and so we find that the gene has its roots extended to identify talent, sports , and adds that research Havlice confirm that static variables that determine the degree of success in the future in the sport but are variables that are directly related to genes , and the effect of the environment it is weak, and some of them believe the opposite and training Sports is more important than molecular biology and this has been confirmed by studies of identical twins in the sports field , and ended the debate on the importance of both sports training and molecular biology and molecular biology is responsible for 50% of the performance variables and environmental factors , including athletic training responsible for half. (Bouchard, et al. 1998) indicates that genes play an important role in the field of sports, which is responsible for half of the physical performance variables between members of the community, and the other half is due to environmental factors, the most important of training and nutrition.

Among the most important of these genes significantly associated domain angiotensin converting enzyme (ACE) in three forms II,ID, DD and called Performance Gene.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

To understand how these differences affect in the ACE gene on performance in sports such as the taekwondo, swimming, etc., we must first understand how it works this enzyme.

Angiotensin-converting enzyme increases blood pressure by causing blood vessels to constrict. It does that by converting angiotensin I to angiotensin II, which constricts the vessels.For this reason, drugs known as ACE inhibitors are used to lower blood pressure. (Jones, et al. 2002)

ACE, angiotensin I and angiotensin II are part of the renin-angiotensin system (RAS), which controls blood pressure by regulating the volume of fluids in the body. ACE is secreted in the lungs and kidneys by cells in the inner layer of blood vessels. (Sendro, et al. 2002)

Since the inauguration of World Tae Kwon Do Federation in 1973, Tae Kwon Do has gradually changed into a modern Olympic sport characterized by its fast high kicks, spinning kicks, and effective punches. In general, Tae Kwon Do training involves basic patterns, forms, simulated sparring, free sparring, and self-defense. Basic techniques such as punching, kicking, and blocking are performed individually in stationary position or with body movements in formal stances (Toskovic, et al. 2004).

In particular, it has been suggested that during TKD competitions, athletes perform 3-5 s bouts of high-intensity exercise alternated with low-intensity periods during which heart rate (HR) can reach levels as high as 100% of maximum HR (HR max) and lactate responses of 11.4 mmol l-1H. Imamura, et al. (1999). Metabolic responses to TKD exercise have been scarcely studied, in fact, most of the studies presented in scientific literature dealt with injury patterns in TKD (Pieter, et al. 1995)

Considering the growing interest versus this martial art, it is important to definethe metabolic demands of competitive activities in order to provide precise and effective guidelines for physical training of TKD athletes. Nevertheless, in sports characterized by intermittent activities, physiological demands imposed on the athletes during competition cannot be simulated in controlled laboratory settings and hence have to be determined during actual competitions.

Despite the worldwide popularity of amateur taekwondo, research focused on the physiological demands of the sport is limited. The anthropometric profile of elite female taekwondo players is presented. The purpose of the present investigation was to describe the ACE Gene and anthropometric profile of elite female taekwondo players.

Statistical methods

All statistical analyses were calculated by the SPSS.V.16 (Statistical Package for the Social Sciences). The results are reported as means and standard deviations (SD). Nonparametric Chi – Square test was used to analysis the variance results that were found statistically significant. Differences in means were considered if p, 0.05. Pearson correlation coefficients were also computed

Participants

With the Local Ethics Committee approval, (11) international standard female TKD fighters provided written informed consent and participatedin this study. All participants were members of EgyptianNational Taekwondo Team. All ofthem have trainedTKD for at least(7) years. Three different women weight categories (up to 51, up to 55and up to 59) were included in the study. Physical characteristics of subjects arepresented in Table 1.

Blood test

Blood is drawn from a vein (venipuncture), usually from the inside of the elbow or the back of the hand. A needle is inserted into the vein, and the blood is collected in an airtight vial or a syringe. Preparation may vary depending on the specific test.

DNA extraction.

High-molecular weight DNA was isolated from peripheral blood leukocytes by standard techniques. DNA concentrations were measured by absorbance at 260 nm. Human ACE cDNA probe. The complete human endothelial ACE cDNA (clones pG 19-22 and pG2 1-1 1) was used in a first approach to the detection of restriction fragment length polymorphism (RFLP) on the human ACE gene. For subsequent detection of the insertion/deletion polymorphism, a 584-bp Ban I restriction fragment corresponding to nucleotide positions 2123 to 2707 of the published cDNAsequence (9) was routinely used. Inserts of plasmids pG19-22 and pG2 1-1 1, and the Ban I fragment of plasmid pG19-22, were isolated from low-gelling temperature agarose gels (SeaPlaque, FMC Bioproducts, Rockland, ME) and labeled at high specific activity by the random-primer labeling method , using a commercial kit .RFLP detection. Individual high-molecular weight DNAs were digested by restriction enzymes under the conditions advised by the supplier, and was submitted to electrophoresis on 0.7% agarose gels. DNAs were transferred by capillary blotting and hybridized to labeled probes, according to previously described protocols, Hybridization and filter washing were done under high stringency conditions.

The primer for ACE genotype were 5'-TGGAGACCACTCCCATCCTTTCT-3' and 5'-GATGTGGCCATCACATTCGTCAGAT-3

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
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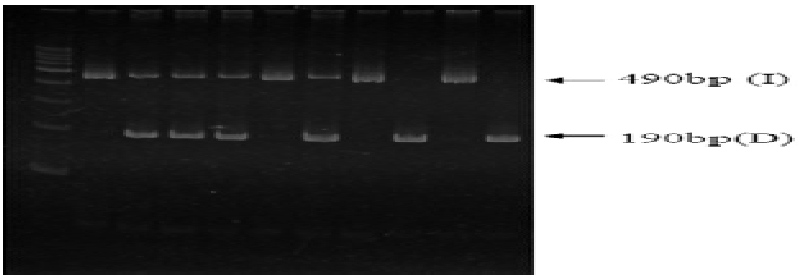
Figure.1Genotypes for the ACE I/D polymorphism. Homozygous and heterozygous shown



Physical tests.

Static strength test (LS) (BS)

A Takei leg and back dynamometer was used to measure the static leg strength. The subjects stood on the dynamometer platform and crouched to the desired leg bend position, while strapped around the waist to the dynamometer. At a prescribed time they exerted a maximum force straight upward by extending their legs. They kept their backs straight, head erect and chest high. 3 trials were allowed to the subjects and the best score was taken. Subjects had a rest between the trials (Jensen & Fisher).

Hand Grip Strength Test (HS)

The purpose of this test is to measure the maximum isometric strength of the hand and forearm muscles.The subject holds the dynamometer in the hand to be tested, with the arm at right angles and the elbow by the side of the body. The handle of the dynamometer is adjusted if required - the base should rest on first metacarpal (the heel of the palm), while the handle should rest on middle of

Dynamic balance (DB)

Dynamic balance is very important in sports which need too many joint awareness, and overall proprioception. Balance test investigated by 5 m-timed-up-and-go-test (5m-TUG). Subjects performed 5-TUG with time taken to rise from a chair, walk a set distance 5 m, turn around, walk back and sit down. Each subject was given 2 practice trials performed to familiarize. All subjects completed three trials with 1 min recovery between trials. The less time for each trial was recorded.

3 Minute Step Test (ST)

Step test have been developed to measure aerobic fitness using a simple test requiring minimal equipment and space. the equipment required will vary on the test being conducted. The step or platform needs to be of solid construction, and will vary in height between 15-50 cm or 6-20 inches. You will also probably need a stopwatch, and you may need a metronome or pre-recorded cadence tape depending on which procedure you are using. The athlete steps up and down on the platform at a given rate for a certain time or until exhaustion. Heart rate may be recorded during the test and/or for some period afterwards. See a video of Step tests being performed. The results are based on the stepping time and/or heart rate after exercise. A score can be calculated, which is then compared to normative values to determine a fitness rating.

30 m sprint (30Ms)

The test involves running a single maximum sprint over a set distance, with time recorded. After a standardized warm up, the test is conducted 30 meters. The starting position should be standardized, starting from a stationary position with a foot behind the starting line, with no rocking movements.

Results

Table 1. Age, anthropometric characteristics and training experience (Mean ± SD)

Group	N	Age [years]	Weight [kg]	Height [cm]	Training experience
Female taekwondo	11	21.20 ± 1.2	64 ± 3.9	173 ± 4.1	11.27 ± 2.5

Table 1 shows the age and anthropometric characteristics of the subjects. There were no significant differences were observed in the anthropometric characteristics and Training experience for the subjects.

Table 2.Frequencies, percentages and chi – square of angiotensin converting enzymegene(ACE) forelite female taekwondo players

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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Variables	DD		ID		II		chi – square
	Frequency	percentage	Frequency	percentage	Frequency	percentage	
	4	36%	5	45%	2	18%	

Evident from the table (2) that DD Frequencyis (4 -36%), ID Frequencyis (5- 45%) and II Frequencyis (2- 18%).Adding no statistically significant differences in chi – square test between the three types of angiotensin converting enzymegene for elite female taekwondo players

Table 3. Correlation coefficient between (ACE) genotypes and physical variables for elite female taekwondo players

Variables	DD	ID	II
Static Leg strength (LS)	0.236	0.111	0.145
Static Back strength (BS)	0.135	0.322	0.241
Hand Grip Strength (HS)	0.432	0.135	0.267
Dynamic balance (DB)	0.211	0.139	0.229
Anaerobic Capacity (ST)	0.199	0.140	0.314
Speed (30Ms)	0.322	0.113	0.375

Evident from the table (3) that no correlation coefficient between the three types of angiotensin converting enzymegene and physical characterizes forelite female taekwondo players.

Discussion

According to the results. The researcher believes that this is due to the nature of the performance in the sport of taekwondo, which require special motor skills and varied and not repetitive movements as track orswimming, in addition to the required motor skills of the tactical capabilities and psychological attributes beside physical abilities

In this regard, indicates (Pieter, et al. 1995) that the moves in taekwondo not duplicate with motor performance time skill rapid , although the length of time of the competition , they are characterized by lightness of movement and ease of changing direction .

This is confirmed by (Diet, et al. 2001) to link angiotensin converting enzymegene with sports performance may appear in activities that require the capabilities of physical high such as swimming , running, and hard Note this link in activities that require the capabilities of skill beside physical abilities, and that the nature of the angiotensin converting enzymegeneassociated system renin - angiotensin, resulting in hormone secretion Aldosterone which works to maintain the balance of salt and water in the body , in addition to convert angiotensin1 to angiotensin2 .

The results of the study agree with the study (Tuomo et al. 2000; Karjalainen, et al. 1999; Sendro, et al. 2002) in that the angiotensin converting enzymegenenot linked to athletic performance

(William, Stuart 2006) indicated that the existence of a link between the gene and some of the physical abilities of the nature of sports activity, or a pattern of special gene and distinctive for athletes with high level, does not understand it necessarily that this gene is responsible for creating this capability physical, is the main factor determining the nature of the sports activity, but it must be kept in mind that this gene works within the physiological system inside the body, it affects and is affected by many internal and external variables

(Williams, et al. 2000) to link the gene athletic activity may be due to three main factors, the most important of these factors that may be associated with gene is located on the site close to it, which allows the system to metabolic hormone modify order

He adds that the angiotensin converting enzymegene may be associated with growth hormone gene

(McKenzie, et al. 1995) indicated that the current studies did not prove a link angiotensin converting enzymegeneany other gene

Conclusion.

DD Frequencyis (4 -36%), ID Frequencyis (5- 45%) and II Frequencyis (2- 18%).Adding no statistically significant differences in chi – squaretest between the three types of angiotensin converting enzymegene for elite female taekwondo players. Moreover, no correlation coefficient between the three types of angiotensin converting enzymegene and physical characterizes for elite female taekwondo players

References.

Abu Ella, A., 2003, Training and Sports Physiology first edition of the Arab Thought House, Cairo.

Amr, H., 2008, Effect of complex training on gene expression for fencers, PhD thesis, faculty of physical education, Zagazig University.

Bouchard, C., Daw, EW, Rice T., et al. 1998, Familial resemblance for vo2max in the sedentary state-the Heritage family study, Med Sci Sports Exerc;30 :252 –258

Danser, A.H.J., Schalekamp, M.A.D.H., Bax, W.A., et al. 1995, Angiotensin converting enzyme in the

human heart: effect of the deletion/insertion polymorphism. Circulation 92:1387–1388

David, A., Boreck,i I.B., Rankinen, T., et al. 2001, Evidence of major genes for exercise heart rate and blood pressure at baseline and in response to 20 weeks of endurance training: the HERITAGE family study. International Journal of Sports Medicine, 24, 492–8.

Diet, J, Ferrell, R, Mockrin, S.C., et al. 2001, Genome-wide linkage analyses of systolic blood pressure using highly discordant siblings. Circulation 99: 140.

Essam, A., 1999, Sports training theories applications, Knowledge House, Alexandria.

Essam, M., 2002, The human genome project in the selection and preparation of the Olympic Scientific Center , Cairo.

Folland, J, Leach, B, Little, T, et al., 2000, Angiotensin-converting enzyme genotype affects the response of human skeletal muscle to functional overload. Exp Physiol;85 :575 –579.

Gayagay, G., Yu, B., Hambly, B., et al., 1998, Elite endurance athletes and the ACE I allele –the role of genes in athletic performance. Hum Genet 103:48–50

Hopkins, W.G., 2001, Genes and training for athletic performance. Sport science 5(1), sportsci.org/jour/0101/wghgene.htm

Hussein, H., Shalaby N., 2003, Genetics in sports, the center of the book for publication , Cairo

Imamura H., Yoshimura, Y., Nishimura, S., et al., 1999, Oxygen uptake, heart rate, and blood lactate responses during and following karate training. Med.Sci.SportsExerc. 31:342-347

Jones, A, Montgomery, H, Woods, D, 2002, Human performance: a role for the ACE genotype?,Exerc Sport Sci Rev;30 :184 –190.

Karjalainen, J., Kujala, U.M., Stolt, A., et al. 1999, Angiotensin gene M235T polymorphism predicts left ventricular hypertrophy in endurance athletes. J Am CollCardiol ;34 :494 –499.

Keavney, B., Mckenzie, C., Parish, S., et al. 2000, Large-scale test of hypothesised associations between the Angiotensin-converting-enzyme insertion deletion polymorphism and myocardial infarction in about 5000 cases and 6000 controls. International Studies of Infarct Survival (ISIS) Collaborators. Lancet. 5;355(9202):434-42.

Mckenzie, C.A., Julier, C., Forrester, T., et al. 1995, Segregation and linkage analysis of serum angiotensin I-converting enzyme levels: evidence for two quantitative trait loci. Am J Hum Genet ;57 :1426 –1435.

Mohamed, T., 2002, The psychological basis for the selection of athletes, the General Organization for the princely presses, Cairo.

Montgomery, H., Clarkson, P., Barnard, M., et al. 2003, Angiotensin-converting-enzyme gene insertion/deletion polymorphism and response to physical training. Lancet; 353:541 –545.

Mufti, I., 2000, Unisex sports training from childhood to adolescence, Arab Thought House, Cairo.

Munief, A., 2003, Genetics and your health, Arab Scientific Publishers , Beirut.

Pieter, W., VanRyssegem, G., Lufting, R., 1995, Injury situation andinjury mechanism at the 1993 European taekwondo cup. Human Mov.Stud. 28:1-24.

Rankinen, T., Perusse, L., Rauramaa, R., et al. 2004, The human gene map for performance and health related fitness phenotypes: the 2003 update. Med Sci Sports Exerc ;36 :1451 –1469

Saul, G., Myerson, M., Hugh, E., Martin, W., 2001, Left Ventricular Hypertrophy with Exercise and ACE Gene Insertion/Deletion Polymorphism A Randomized Controlled Trial withLosartan, American Heart Association, Inc.; 103:226-230

Schneider, M., Amos, C., Kardia, S., et al. 2002, Variation in the region of the Angiotensin-converting enzyme gene influences interindividual differences in blood pressure levels in young white males. Circulation journal ; 97

Sendro, M., Gaskill, S., Rice, T., et al. 2002, Major gene effects on exercise ventilator threshold: the HERITAGE Family Study. Journal of Applied Physiology , 93, 1000–6.

Taylor, R., Mamotte, C., Fallon, K., Van Bockxmeer, F., 1999, Elite athletes and the gene for angiotensin-converting enzyme. J ApplPhysiol ;87 :1035 –1037.

Toskovic, N.N., Blessing, D., Willford, H.N., 2002, The effects of experience andgender on cardiovascular and metabolic responses with dynamic Tae kwon do exercise. J.StrengthCond.Res. 16:278-285

Tuomo, I.B., Woods, D.R., Montgomery, H.E. et al. 2000, Angiotensin-converting enzyme and Angiotensin II receptor 1 polymorphisms: association with early coronary disease. Cardiovascular Research, 40: 375-379.

William, R., Thompson, A.N.D., Stuart, A. BINDER-MACLEOD, 2006, Association of Genetic Factors With Selected Measures of Physical Performance , American Physical Therapy Association, Vol. 86, No. 4, April , pp. 585-591

Williams, A.G., Rayson, M.P., Jubb, M., et al. 2000, The ACE gene and muscle performance. Nature 403: 614,

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 51-59
Original article

NEUROREHABILITATION AT PATIENTS WITH SPINAL DURAL ARTERIOVENOUS FISTULA VERSUS PATIENTS WITH SPINAL CORD ISCHEMIA

GOGU ANCA[1], GLAVAN OANA[2]

Abstract

Background: Spinal dural arteriovenous fistulas (SDAVF) are the most common vascular malformation of the spinal cord, but still rare and underdiagnosed disease. The fistula causes a progressive loss of cord function: para- or tetraplegia, sensory loss, incontinence and pain. Because presenting the same clinical symptoms like SDAVF, spinal cord ischemia (SCI) is another entity which must be considered.

Patients and methods: Between August 2012- August 2013 we diagnosed 5 patients with SDAVF and 5 patients with SCI (only self- casuistry).We collected information on history, time to diagnosis, neurologic examination, MR-angiography, MRI, surgical or medical treatment and neurorehabilitation.

Results: In group A we have five patients with SDAVF. The median age was 50,6 years (range 28-71).The median time to diagnosis was 4 months (range 2 days to 12 months).The most frequent symptoms were paraplegia (100%) and micturition problems (100%). In our experience 80% of all SDAVF are located between T2-L5.We have one option in treatment of SDAVF: surgical occlusion of fistula.

In group B we have five patients with SCI. The median age was 40,8 years (range 19 to 60). The median time to diagnosis was only few hours (8 hours). The most frequent symptoms were paraparesis or plegia (100%), sensory loss (80%), back pain at onset (100%) and urinary problems (80%). The most common location to be affected is lumbosacral spine. The treatment of SCI was medical.

Conclusions: Patients with SDAVF develop a progressive myelopathy, which at the early stage of the disease often mimics a polyradiculopathy or anterior horn cell disorder. By the time, patients suffer from considerable neurological deficits. Patients with SCI suffer the same symptomatology; they are much younger that the patients with SDAVF and the median time to diagnosis was only few hours.

The diagnosis was confirmed by MR-angiography or MRI for both entities.

Prognosis: The effect of surgical treatment on activities of daily life was reported as better by 3 of 5 patients. At patients with SCI recovery is higher.

Key Words: Spinal dural arteriovenous fistula, spinal cord ischemia, neurorehabilitation.

Introduction

Spinal dural arteriovenous fistulas are the most common vascular malformation of the spinal cord but still rare and underdiagnosed disease.

A spinal dural arteriovenous fistula (SDAVF) is an abnormal shunt between a spinal radicular artery and corresponding radicular vein that drains the perimedullary venous system (Jellema K. at al, 2004).

The fistula causes congestion in medullary veins, which leads to decrease tissue perfusion with edema and progressive loss of cord function: para- or tetraplegia, sensory loss, incontinence and pain (Kendall. at al, 1977).

Because presenting the same clinical symptoms like SDAVF, spinal cord ischemia is another entity which must be considered. Weakness, flaccid paresis accompanied by diminished superficial and tendon reflexes below the level of the lesion, sensory loss, back pain and urinary complaints required catheterization were the most common symptoms of cord ischemia at the time of presentation. Maximum disability is observed within 12 hours of onset in a majority of patients (Bradley at al, 2008).

Surgical treatment aimed at closure the SDAVF. Embolization of SDAVF is not possible in our clinics.

The medical management of spinal cord ischemia is generally supportive and includes maintenance of adequate blood pressure, early bed rest, reversal causes such as hypovolemia and arrhytmias, antithrombotic therapy.

Physical and occupational therapy are useful in promoting functional recovery.

Significant subjective improvement was noted in walking and muscle power at patients with SDAVF. Muscle spasm and leg pain were reported; micturition and anal sphincter function tended to persist after surgical treatment.

Rates of recovery is high at patients with spinal cord ischemia; they have a favorable outcome defined as the ability to walk with none assistive device and no

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Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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need urinary catheterization. Chronic pain tends to occur only at patients with spinothalamic sensory impairment.

Patients and methods

Between August 2012 - August 2013 we diagnosed 5 patients with SDAVF and 5 patients with spinal cord ischemia (only self-casuistry).

The patients with SDAVF were treated by surgery. The diagnosis of SDAVF was confirmed by MR-angiography which reveals "flow-void phenomena", representing tortuous and dilated veins at the dorsal surface of the spinal cord; the central hyperintense lesions are difficult to interpret (Gogu at al, 2013).

The patients with spinal cord ischemia were treated with medical procedures. The diagnosis of spinal cord ischemia was confirmed by MRI. After spinal cord infarction, typical spin-echo magnetic resonance (MR) findings are cord enlargement and hyperintense signal on T2-weighted images initially (8 hours to several days), with or without gadolinium enhancement, followed by cord atrophy later (months). Abnormal signal and enhancement may demonstrate a double-dot ("owl's eye") pattern in the region of the anterior horns and H-shape pattern involving the central grey matter or a more diffuse pattern involving both grey and white matter (Bradley at al, 2008).

We collected information on history, time to diagnosis, neurologic examination, imaging, treatment and recovery. Patients were re-examined after three months, except one case who refused surgical treatment for SDAVF. Patients were asked to compare their current status with the worse before treatment; they graded changes in walking, muscle power, paresthesias, micturition problems, anal sphincter disturbances, pain, muscle spasm as worse, same or better.

Results

In group A we have 2 men and 3 women with SDAVF. The median age was 50,6 years (range 28 to 71). The median time to diagnosis was 4 months (range 2 days to 12 months).The most frequent symptoms were gait disturbances (paraplegia- all patients-100%) and micturition problems (100%). Most fistulas are solitary lesions and are found in the thoracolumbar region. In our experience 80% of all SDAVF are located between T2- L5. Only one case has lesions at level T1-T2.

We describe three important cases with SDAVF:

Case 1A- A 57-year old female, M.B., with acute onset; the symptoms develop within minutes and mimic an anterior spinal artery syndrome: paraplegia, total sensory loss, urinary retention, bowel incontinence.

Fig.1A-a. MRA revealed: on T1 weighted sequences the cord edema is depicted as a centromedullary hyperintensity over T7-L1.
At these level there is intraspinal haemorrhage. (a rare case report).

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST, DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Fig. 1A-b. T2 weighted MRA shows numerous "flow-voids" over the dorsal spinal cord, representing dilated perimedullary veins, between T10-L1 levels.

Case 2A- A 35-year old female, S.F., subacut onset in two weeks with gait difficulties, asymmetrical paraparesis and sensory symptoms; paresthesias in both feet, first with loss of pain and temperature sensation, gradually ascending to the T6 level; micturition disturbance

Fig. 2A-a. Hyperintensities on T2-weighted images represents perimedullary vessels which are dilated and coiled at T6-T11 levels.

Fig.2A-b. The technique of first-pass gadolinium-enhanced MRA demonstrates the level of the shunt at T6.

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Vol. XIV, ISSUE 1, 2014, Romania
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Case 3A-A 71-year old male, H.I., with chronic onset in 3 months presented initial symptoms like difficulty in climbing stairs, gait disturbances, paresthesias and radicular pain wich affect both lower limbs. These neurologic symptoms are progressive with time and are ascending; later the patient was paraplegic with loss of all modalities of skin sensation below T2; urinary retention and constipation.

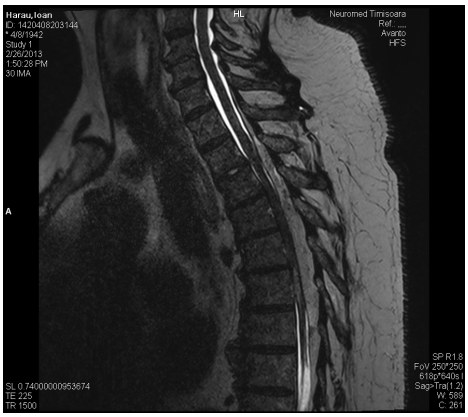

Fig.3A-a. MRA revealed abnormal blood vessels on either the ventral and the dorsal side of the spinal cord below level T2.

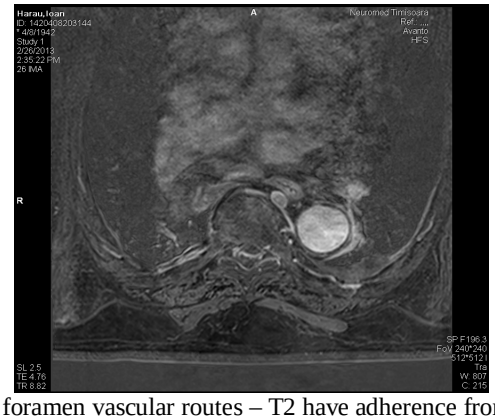

Fig.3A-b. The left foramen vascular routes – T2 have adherence from the subclavian artery and aortic cross, with left paravertebral intrathoracic extension and within left posterior - vertebral muscles.

Fig.3A-c. MRA revealed extradural subacute hematoma T2 – T3.

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Treatment modalities: the aim of treatment in SDAVF is to occlude the shunting zone (the most distal part of the artery together with the most proximal part of the draining vein) (Krings at al, 2009; Jellema at al, 2005; Van Dijk at al, 2002). There are two options in treatment of SDAVF: surgical occlusion of the intradural vein that received the blood from the shunt zone or embolization of fistula. In our clinics this last procedure is not possible.

In group B, we have 3 men and 2 women with spinal cord ischemia. The median age was 40.8 years (range 19 to 60).The median time to diagnosis was only few hour (under 8 hours). The most frequent symptoms were gait disturbances (paraparesis or paraplegia-100%), sensory loss (80%), back pain at onset (100%) and urinary complains requiring catheterization (80%).The most common location to be affected is lumbosacral spine (3 cases). Lower cervical lesions are less common (1 case) and we have one patient with midthoracic spinal ischemia. We describe the most important cases:

Case 1B: A 51-year old male, C.T., with acute onset: the symptoms develop within minutes with paraplegia, back pain and urinary retention. This patient has atrial mixoma and thromboembolism may cause spinal cord infarct.

Fig 1B-a. MRI shows hyperintense signal on T2-weighted images with gadolinium enhancement at L1- L4 levels.

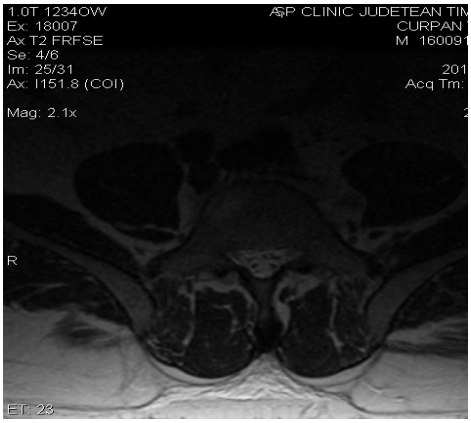

Fig.1B-b. MRI reveals a double- dot ("owl's eyes") pattern in the region of anterior horns.

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Vol. XIV, ISSUE 1, 2014, Romania
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Case 2B: A 32-year old female, C.M., with acute onset: asymmetrical paraparesis, sensory symptoms with loss of pain and temperature sensation first; proprioception changes accompany them; back pain and micturition disturbances. This patient has systemic lupus erytematosus with chronic treatment with Azathioprine.

Fig. 2B-a. MRI-findings are cord enlargement and hyperintense signal on T2-weighted images without gadolinium enhancement at T6-T12 levels.

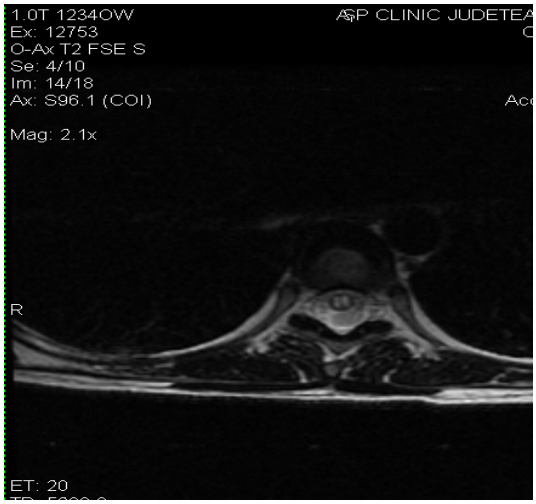

Fig. 2B-b. MRI reveals an H-shape pattern involving the central grey matter and near T12 level we observe a more diffuse pattern involving both gray and white matter.

Prognosis

The changes in specific symptoms after treatment of spinal dural arteriovenous fistulas (SDAVF) or spinal cord ischemia (SCI) are summarized in the Table 1.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
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Table 1. The symptoms after treatment of SDAVF and SCI

Rating	Walking disturbances	Muscle power	Paresthe - sias	Micturition problems	Anal sphincter problems	Pain in legs	Muscle spasms
Group A SDAVF=5							
Worse	1	1	1	0	0	3	3
Same	1	1	1	2	2	1	1
Better	3	3	3	3	3	1	1
Group B SCI=5							
Worse	0	0	0	0	0	0	0
Same	1	1	1	0	0	1	1
Better	4	4	4	5	5	4	4

The effect of surgical treatment on activities of daily life was reported as better by 3 of 5 patients and as worse by 1 patient. Nearly one third of more severely affected patients required a wheelchair (2 cases). The most persistent symptoms were paresthesias, micturition problems, pain in legs and muscle spasm.

At patients with spinal cord ischemia, recovery is higher.Four patients had a favorable outcome; they walk with one assistive device or none and no need for urinary catheterization after subacute phase of disease. After three months all of them walk without assistive device. Chronic pain was a disabling consequence of spinal cord ischemia.

Neurorehabilitation

Recovery of independent locomotion (neurorehabilitation) is an important goal for many patients seeking physical therapy intervention. It is a functional skill that directly impacts performance of expected roles within the patient's social, cultural, and physical environment. A general framework of preparatory exercises and locomotor training strategies has been presented that can be modified to meet the needs of an individual patient. Through a process of careful examination and communication with the patient, family, and/or care-givers, the appropriate preparatory activities and specific training strategies can be identified.

Enabling individuals to manage daily self-care is among the most important goals undertaken by the rehabilitation team. This is because such tasks relate directly to the business of living and their performance signifies a return to participation in the routines of daily life. Self-care tasks include dressing, eating, bathing, grooming, use of the toilet, and mobility within the home. These are basic tasks included within the general category of activities of daily living (ADL). Although able-bodied persons perform most self-care tasks routinely, such tasks can represent difficult challenges for persons with sensory, motor, and/or cognitive deficits. During the rehabilitation process, the family can have a considerable influence on functional outcome. A stable and supportive family unit can be of great assistance, whereas families that are functioning poorly can impede rehabilitation. In some cases, poor outcomes can be traced to a lack of family involvement in the rehabilitation process. In other cases, too much support can encourage dependency. This indicates that the family should be involved in all aspects of rehabilitation, including evaluation and the setting of rehabilitation goals and treatment strategies before and after discharge.

A few basic exercises that were used in this study:

1. The physical therapist initiates passive/passive-active movements in all diagrams, until the active movements is achieved.
2. Proprioceptive neuromuscular facilitation (PNF) – rhythmic stabilization (RS), contract-relax (CR), hold-relax (HR), repeated contractions.
3. Bridging – allows weight-bearing through the feet and is an important precursor to assuming the kneeling position and in developing sit-to-stand control. For this activity the patient is in a hooklying position (supine with hips and knees flexed and feet flat on the mat) and elevates the pelvis off the mat. This activity is particularly useful for facilitating pelvic motions and strengthening the low back and hip extensors in preparation for the stance phase of gait. In

addition, bridging has several important functional implications, including bed mobility, pressure relief, movement from sit-to-stand, and stair climbing.

4. Quadruped posture – allows weight-bearing through the hips and is particularly useful for promoting control of the lower trunk and hips. For patients with spasticity, this posture can be used to provide inhibitory pressure to the quadriceps and long finger flexors (using an open hand position) to diminish tone.
5. Sitting – can be used effectively to promote static and dynamic postural control, reactive and anticipatory balance control, vertical midline orientation and postural alignment.
6. Sit-to-stand – movement transitions from sit-to-stand should emphasize symmetrical weight-bearing as well as coordination and timing of motor response. Initially, the patient shifts weight forward by using momentum and actively flexing the trunk forward (mass flexion pattern). The feet are placed back partially under the supporting surface to engage the dorsi-flexors in forward rotation.
7. Modified plantigrade - is an early weight-bearing posture that can be used in preparation for erect standing and walking. Modified plantigrade is an important precursor to walking inasmuch as it superimposes close to full weight-bearing on an advanced LE pattern. This pattern, required during gait, combines hip flexion with knee extension and ankle dorsiflexion.
8. Standing – initially, the patient should be allowed time to become acclimated to the upright posture. For many patients these activities can be more effectively initiated outside but next to standard parallel bars, next to an oval parallel bar, appropriate height treatment table or other supporting surface such as a wall.
9. Walking – with ambulatory assistive devices: canes, crutches and/or walkers. This assistive device are prescribed for a variety of reasons, including problems of balance, pain, fatigue, weakness, joint instability.
10. Ascending stairs – when the therapist is positioned posterior and lateral on the affected side behind the patient; a step should be taken only when the patient is not moving; one hand is placed posteriorly on the guarding belt and one is anterior to, but not touching, the shoulder on the weaker side.
11. Descending stairs – when the therapist is positioned anterior and lateral on the affected side in front of the patient; a step should be taken only when the patient is not moving; one hand is placed anteriorly on the guarding belt and one is anterior to, but not touching, the shoulder on the weaker side.

Discussions

Patients, who are mostly middle-age, develop a progressive myelopathy which at the early stage of the disease often mimics a polyradiculopathy or anterior horn cell disorder. By the time involvement of upper motoneurons or sacral segments makes the diagnosis of SDAVF inescapable, patients suffer from considerable deficits (Jellema et al, 2006).

The fistula causes congestion in medullary veins decrease tissue perfusion with edema and progressive loss of cord function: paraplegia, sensory loss, disturbances of micturition and defecation, pain in legs and muscle spasms (Kendall at al, 1977).

Because presenting the same clinical symptoms like SDAVF, spinal cord ischemia (SCI) is another entities which must be considered; the most frequent symptoms were gait disturbances, back pain, sensory loss and urinary problems.

Recovery of motor control is an intrinsic person/nervous-system process

This recovery is dependent on psychological, behavioural, neurophysiological and tissue-related factors. Often many of these factors are interrelated.

The role of neuromuscular rehabilitation is to optimize the recovery of movement control, working with all these factors.

There are three main principles to consider in neuromuscular rehabilitation: functional movement, skill-and ability-level rehabilitation, and the code for neuromuscular adaptation (Lederman, 2010).

A functional approach promotes the use of what the patient already knows. Challenges to specific motor losses can be found within the person's movement repertoire.

At skill-level rehabilitation the patient simply aims to do the movements they can't do.

Cognition about injury and pain, persistent pain and fear of it, and behavioural factors can all be managed within skill-level rehabilitation.

Ability-level rehabilitation focuses on specific underlying motor losses that prevent the person from attaining their movement goals.

Conclusions

1. The diagnosis of SDAVF was confirmed by MR-angiography which reveals "flow-void phenomena", representing tortuous and dilated vein at the dorsal surface of the spinal cord.
2. In our experience 80% of all SDAVF are located between T2-L5 levels.
3. Surgical treatment aimed at closure the fistula. Embolization of SDAVF is not possible in our clinics.
4. The patients with SCI are younger than the patients with SDAVF.
5. The median time to diagnosis was only few hours (under 8 hours) but at patients with SDAVF this time is longer (weeks or months).
6. The diagnosis of SCI was confirmed by MRI which reveals spinal cord enlargement and hyper intense signal on T2-weighted images (8 hours to several days). Gadolinium enhancement demonstrates a double- dot (owl's eye) pattern in the region of the anterior horns.
7. The most common location to be affected by ischemia is lumbosacral spine (L2-S2).Historically, the literature has supported the notion of a spinal cord "watershed zone" of ischemic vulnerability centered at the mid-thoracic level (T4 to T6), describing the relative hypovascularity of this region (Duggal at al, 2002).
8. The medical treatment of spinal cord ischemia is generally supportive and includes maintenance of adequate blood pressure, early bed rest, reversal causes and antithrombotic therapy.
9. At patients with SCI, recovery is higher. They walk with one assistive device or non, and no need urinary catheterization but remains with chronic pain in legs. At patients with SDAVF a significant improvement was noted in walking and muscle power; muscle spasms and leg pain were reported but micturition and anal sphincter function tended to persist after surgical treatment.

References

Bradley, W.G., Daroff, R., Fenichel, G., Jankovic, 2008, J. Neurology in Clinical Practice 2008, vol. 2; 55: 1286-1287.

Duggal, N., Lach, B. 2002, Selective vulnerability of the lumbosacral spinal cord after cardiac arrest and hypotension. Stroke. Journal of the American Heart Association 2002, 33:116-121.

Gogu, A., Scutelnicu D., Ples, H., Ignea, A. 2013, Spinal dural arteriovenous fistula- a rare and underdiagnosed disease.Journal of Experimental Medical and Surgical Research 2013, 1: 68-69.

Jellema, K., Tijssen, C.C., van Rooij W.J.J., Sluzewski M., Kondstaal P.J., Algra A., Gijn J. 2004, Spinal dural arteriovenous fistulas. Neurology 2004; 62:1839-1841.

Jellema, K., Sluzewski, M., van Rooij W.J.2005, Embolization of spinal dural arteriovenous fistulas:importance of occlusion of the draining vein. Journal of Neurosurgery Spine 2005, 2: 580-583.

Kendall, B.E., Logue ,V. 1977, Spinal epidural angiomatous malformations draining into intrathecal veins. Neuroradiol. 1977; 13: 181-189.

Krings, T., Geibprasert S. 2009, Spinal dural arteriovenous fistulas. American Journal of Neuroradiol. 2009, 30: 639-648.

Lederman, E. 2010, Neuromuscular Rehabilitation in Manual and Physical Therapy. Churchill Livingstone 2010; 128

Van Dijk, J.M., TerBrugge K.G.,Williansky R.A.2002, Multidisciplinary management of spinal dural arteriovenous fistulas:clinical presentation and long term follow-up in 49 patients.Stroke 2002, 33: 1578-1583.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 60-65
Original article

EFFECT OF LINEAR AND EXPONENTIAL TAPERFOR TWO WEEKS ON IRON LEVEL AND1500M RUNNING TIME FOR YOUTH

HAMDY OSMAN[1], ABEER ESSA[2]

Abstract

Purpose. Iron is the most studied minerals in athletes. Approximately, 25% of female and 10% of male athletes have iron deficiency.The main purpose of this study was to examine the effects of linear and exponential taperfor two weeks on iron level and1500m running time for youth

Methods. The sample consisted of (22) runner of 1500m running (15 ± 1.36 years old; 160 ± 5.2 cm height; and 51 ± 6.14 kg weight), members of the army team club. The training experience of all the participants ranged from 5 to 8 years. Subjects were required to read and complete a health questionnaire and informed consent document; there was no history of coronary heart disease, diabetes or recent surgery.

Results. The T-test showed no significant changes between pre-and post-training scores for all variables ($P \leq 0.05$). However no significant differences were shown between the post-training scores in all variables for the two groups ($P \geq 0.05$).

Conclusions. Although The T-test showed no significant changes between pre-and post-training scores for all variables ($P \leq 0.05$).And however no significant differences were shown between the post-training scores in all variables for the two groups ($P \geq 0.05$). The improvement in linear taper is highest theimprovement in exponential taper.

Key words: linear taper, exponential taper, iron level, 1500m running

Introduction

Became sporting achievements and realized indices and shatter before going to the competition on the sports fields, thanks to the findings of scientific studies and research, thus becoming the competitions are in scientific laboratories.

Sports movement has seen in recent decades, a big jump made the limits of human capacity beyond all barriers and rise to the figures in the past of pure imagination.

This is the great development witnessed in games and sports did not come from a vacuum or by accident, but came to be crowned all scientific efforts and field that have occurred in those games and sports thanks to the findings of the medical sciences, health and social services that take them sport everything would benefit in the ways of evolution.

In this regard, mention (Bosch, 2008) that every observer of the evolution of levels of sports in the world and ponder those renderings realizes that the sports training great significance in the preparation, formulation and development of human capabilities, with its various dimensions in order to blow as much as he can of the capabilities and within the rights of the energies in the direction of the desired goal.

The problem of rationing training load of the biggest problems of sports training, where is considered the basic process that depends upon the success of the coach in achieving training objectives, and is therefore a process leading in the case of successful adaptation to physiological and raise the level of performance, in the case of failure will not be achieved level athlete desired (Powers, Howley, 1997)

It has proven modern scientific studies that the incidence of adaptation in athletes cannot be pushed to the top of the potential and capabilities of the player therefore overstate the increase training loads can lead to a slight improvement in performance or may also lead to failure in the adaptation processes or the occurrence of so-called training overload and the low level of performance.

In this sense , the training load when codified depends on many factors, the most important of the intensity and duration of exercise and how to work the muscle , as well as the potential of the player , physical and physiological age and diversity training and growth phase that passes (Maughan, et al.1997).

All of these factors must take into account when rationing training load or when planning for physical loads, and in conformity with the physiological and biological capacity of the swimmer.

And refers (Marcelo, et al. 2007) because it was believed before 1960 that most of the training severe season training, must be performed during the few weeks leading up to the tournament, but knew now that the pre- tournament must reduce the training and called a truce gradual, and through the application lead swimmers unplug the performance of them during the competition.

According (Laurent, et al. 2007) that in the end stage reaches the summit and before the date of the competition or tournament crucial, there is a transitional period in particular, intended to give a

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chance and enough rest for the player, to get rid of the effects of intensive training, which underwent during his stage reach the summit.

(Marcelo, et al. 2007) that the aim of calming the summit is to reduce the doses of training to achieve the best performance in the competition , in order to reduce the incidence of stress and allowing the swimmer to compete in case restore hospitalization , taking into account not significantly reduce the training may negatively affect the performance.

And refers (Laurent, et al. 2007) noted that the consensus among the coaches have conflicting about the importance of calm subsidiary, some believe it is inconsistent with the training, and it is hinder swimmers from reaching the top of their performance at the end of the season, while others believe it is useful for swimmers, where it has the benefits of physiological and psychological.

While sees (Bosch, 2008) to be one - thousandth of a second become determine the winner in swimming competitions, so to calm the summit has become a major and essential role in implementing training programs, where it is located the biggest burden in creating gradually swimmer to compete strongly.

(Marcelo, et al. 2007) that most of the studies that have addressed the cooling-off period the summit indicate that the highest gains can be achieved when reducing the size of the training rate of 41 - 60% of the total value before applying to calm the summit, and the size of the training can be reduced by reducing the duration of the module or reduce the occurrences training , and this is the preferred strategy used when most of the trainers, bearing in mind that the lack of occurrences of training does not lead to a significant improvement in performance, and therefore, the best strategy used is to reduce the size of the training and not reduce duplicates, and if he wants to coach reduce duplicates must to keep on not less iterations for 80% or more of their value before applying to calm the summit, with an emphasis on the low volume of training should not be at the expense of the intensity of training , it is clear that the intensity is the main indicator of the stability of adjustment during the application of calming the summit, and therefore, the most appropriate strategy for the application of calm Summit training is constant intensity , low volume training increased by 41 - 60% , and duplicates at least 80 % .

He noted researcher and a difference in the most appropriate time periods for the application of calm summit While indicating (Viru, Viru, 2000) that the most suitable period of 2-3 days , because the aim of calming the summit is to compensate glycogen muscle, which lost during the training program , and this has clear benefits in endurance races for players regard, but it may not happen the same effect as swimmers, because the continuity of performance in races run no parity racing swimming competitiveness, in addition to the high levels of glycogen muscle is required in racing swim, because the period of performance fairly short compared to races running and thus does not happen during those short periods depletion of large amounts of muscle glycogen , therefore period rest of 2-3 days is sufficient to compensate for the lost glycogen in the muscles.(Rinehardt, et al. 2000) indicated that the two-week period is sufficient and that in the study conducted by the entitled Effects calm Summit on swimmers university , and the strength of the sample (13) swimming college , they perform (8) weeks exercises bearing antenna above the maximum (percentage enemy 8.8% and the proportion of pregnancies antenna above the maximum 34.8%) and then followed by the calm summit for two weeks (percentage running 13.5% and the proportion of pregnancies antenna above the maximum 5.6%) was the most important results that the speed threshold distinguishing anaerobic threshold velocity increased during the performance (8) weeks exercises bearing antenna Far above from 1.014 to 1.131 m / s did not have any impairment occurs during the cooling - off period the summit , in addition to the lack of changes in maximum of VO2peak oxygen consumption and creatine kinase and lactate CK dual hydrogen LDH and average power and muscle strength . , And is consistent with the study (Kenitzer, 1998) entitled period ideal to calm the summit with swimmers depending on the levels of lactic acid , and the strength of the sample (15) Swimming Pool Distributors equal to (5) swimmer pool short , (5) swimmer distance medium , (5) swimmer long distance, was measured lactic acid after the performance of pool 4 x100 m , and it was the most important results that the levels of lactic acid began to stability after two weeks of calm summit and then began to decline after this period, the researcher recommends not to exceed a period of calm Summit for weeks, depending on the levels of lactic acid.(Sue, et al.1998) noted that the most appropriate period to calm the summit is four weeks and it is proven in his study titled responses blood for Training and calm the summit to swimmers competitions and their relationship to the level of performance , and the strength of the research sample (8) swimmers high level , they have training for a period of (12) week strongly high, and (4) weeks to calm the summit, was carried out measurements of blood during the first week before and after the official tournament , and it was the most important results that the levels of hemoglobin and iron in the blood , improved after training and maintained stability during the period of calm the summit, and the number of red blood cells improves through training and increased during period Altabernj increase significantly, and improved levels of white blood cells after training and fall during the cooling - off period the summit. (Mujika, et al. 2002) indicated that the most appropriate period to calm the summit is (6) days and this is proven in his study

entitled physiological responses and the level of performance for the six days of calm summit of distance runners medium, and the strength of the research sample (9) runners -distance medium (800 m), were divided into two groups, the first group was strong (5) runners have applied occurrences severely high , and the second (4) runners had to perform iterations strongly medium, and for a period of (18) a week followed by a calm summit for (6) days , and it was the most important results improved level of performance level Allimvusaat and Allecosaat and Altesteron the first set by the application of high frequencies strongly (maximum size) compared to the second group has to perform strongly iterations Medium (size Medium). (Marcelo, et al. 2007) that the most appropriate period to calm the summit is a (11) day, and this is proven in his study entitled Effects calm the summit on the strength of swimming and the level of performance of swimmers after the performance of a training program for a period of (10) weeks, and the strength of the sample (14) swimmer enrolled in the Brazilian swimming , they perform a training program for a period of (8.5) week and (11) days to calm the summit, was measured lactic acid after the performance of maximum effort at the end of the training program (8.5) week , and measured the level of performance of the pool 200m freestyle , and it was the most important results and an improvement in the speed of swimming amounted to 3 % after a cooling - off period the summit and the high level of lactic acid from 6.79 to 7.15 mmol , and the stability of the power pool.

In the opinion of the researchers and the existence of an agreement on strategic training used in the cooling-off period the summit , a constant intensity and reduce the size training , and this was confirmed by (Laurent, et al. 2007) that most of the studies that have addressed the cooling-off period the summit indicate that the highest gains can be achieved when reducing the size of the training rate of 41 - 60% of the total value before applying to calm the summit,
and the size of the training can be reduced by reducing the duration of the module or reduce the occurrences of training , and this is the preferred strategy used when most of the trainers, bearing in mind that the lack of occurrences of training does not lead to a significant improvement in performance , and thus The best strategy used is to reduce the size of the training and not reduce duplicates, and if he wants to coach reduce duplicates they must maintain a minimum frequencies of 80 % or more of their value before applying to calm the summit, with an emphasis on the low volume of training should not be at the expense of intensity training , it is clear that the intensity is the main indicator for the stability of adjustment during the application of calming the summit, and therefore, the most appropriate strategy for the application of calm summit is a constant training intensity , low volume training increased by 41 - 60% , and duplicates at least 80 % .

He adds Shipley and others that the period of four weeks preceding the contest was a marathon should be focusing on the intensity of training , not size, and this was confirmed by studies that addressed the cooling-off period the summit before the marathon where noted that the intensity of training is more effective than running distances in miles , if it wants to raise his fitness effectively in a four - week period preceding the competition was a marathon , the training intensity is the best option to achieve this.

Four different types of tapers have been described and usedin the past in an attempt to optimize sports performance. Theseare visually described in Figure 1. The training load during thetaper is usually reduced in a progressive manner, as implied bythe term taper. This reduction can be carried out either linearlyor exponentially. As shown in Figure 1, a linear taper impliesa higher training load than an exponential taper. In addition, anexponential taper can have either a slow or a fast time constantof decay, the training load being higher in the slow decay taper.

Linear Taper: Implies a higher training load than exponential taper.

Exponential Taper (Slow Decay): The training load is higher than the fast decay taper, as well as a slower decrease in volume.

Exponential Taper (Fast Decay): Faster decrease in volume. Lower training load decreases faster in fast decay.

Step Taper: Non-progressive standardized reduction of the training load. (Mujika, 1998)

This already illustrated the importance of apical period of calm before the marathon, and not familiar with most of the coaches of their importance and how to apply scientific method with their athletes. In addition to the importance of iron in the body where it can be able to experience the physical intensity of pregnancy during the competition, which helps to regulate the training, so that commensurate with the abilities of the players for their access to high -level sports.

Iron is the most studied minerals in athletes. Approximately, 25% of female and 10% of male athletes have iron deficiency (Resina, et al. 1991). A higher prevalence than in the general population, where it is around 8% among females, although in both athletes and non-athletes there is a rising tendency in suffering from iron deficiency. The prevalence of iron deficiency anemia among athletes has been estimated to be similar to the sedentary population, that is, around 3%. The aim of this study was

Materials and Methods

Experimental Approach to the Problem

Two experimental groups (experimental-1 and experimental-2) performed a pre and post training designed intervention in which iron level and1500m

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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running time were recorded. The experimental-1 group (11youth runner) trained 2 hours per day 5 times a week on linear taper for two weeks. The experimental-2 group (11 youth runner) trained 2 hours per day 5 times a week on Exponential taper for two weeks. All the experimental groups completed a linear or Exponential taper for two weeks to see whether this type of training modality would have a positive or negative or no effect on iron level and1500m running time.

Samples

The sample consisted of (22) runner of 1500m running (15 ± 1.36 years old; 160 ± 5.2 cm height; and 51 ± 6.14 kg weight), members of the army team club. The training experience of all the participants ranged from 5 to 8 years. Subjects were required to read and complete a health questionnaire and informed consent document; there was no history of coronary heart disease, diabetes or recent surgery.

Training Protocol

The 2-weeks in-season training program consisted of.

Intensity

Maintain training intensity during taper to avoid de-training. It is through the reductions in the other variables (volume, frequency and duration) that recovery should be achieved.

Frequency

Reducing the training frequency to no less than 80 per cent of pre-taper values, to avoid de-training and 'loss of feel', especially in technique-dependent sports.

Volume

Reductions of 50–70 per cent in total training volume have been reported.

Statistical analysis

All statistical analyses were calculated by the SPSS statistical package. The results are reported as means and standard deviations (SD). Differences between two groups were reported as mean difference ±95% confidence intervals (meandiff ± 95% CI).Student's t-test for independent samples was used to determine the differences in fitness parameters between the two groups. The $p<0.05$ was considered as statistically significant.

Results.

Table 1. Mean ±SD and change % in Iron level and 1500m time for linear taper groupand Exponentialtaper group

Variables	linear taper group			T test	Exponential taper group			T test	T test between groups
	Pre	Post	Change %		Pre	Post	Change %		
Iron level	85.21 ±5.39	89.58 ±5.47	5.13	No sign	84.23 ±5.16	85.92 ±6.54	2.00	No sign	No sign
1500m time	4.33± 0.09	4.29± 0.11	0.92	No sign	4.34 ± 0.11	4.31± 0.12	0.69	No sign	No sign

Table 1. Shows the mean scores and percentage changes on Iron leveland 1500m time for the two experimental groups. The T-test showed no significant changes between pre-and post-training scores for all variables ($P\leq 0.05$). However no significant differences were shown between the post-training scores in all variables for the two groups ($P\geq 0.05$).

Discussion

The researchers have suggested various mechanisms for the important role of maintaining (or increasing) intensity during a taper. Those factors that are associated with a high-intensity low-volume taper include: total blood volume, red blood cell volume, citrate synthase activity (a marker for oxidative capacity), muscle glycogen concentrations and testosterone levels (Mujika, et al. 2002; Martin, Coe, 1997).

In this respect, it is interesting to note that testosterone has a good correlation with explosive lower body performances, such as the vertical jump (Mc-Ardle, et al.1996; Spodaryk, 1993; Sue, et al.1999).

The primary objective of tapering is to decrease the training stress to allow for the body to recover and eliminate fatigue. When the training impulse is decreased, fatigue decreases more rapidly than fitness, and increased performance results from the increasing difference between the two factors. Thus, in a well-designed taper, the body becomes rested (with all the associated benefits) and the athlete's fitness level is well maintained. In fact, improvements in performance during taper are significantly correlated with decreases in the negative influences of training (fatigue), but are not correlated with the positive influences of training (fitness) (Mukika et al. 1996). The effects of tapering on the various physiological systems in the body are reviewed below.

According to Nickerson et al (1990) iron deficiency in athletes is considered when the levels of ferritin are less or same to 12 ng/ml and transferrin saturation is less or same to 16% with a normal

hemoglobin. Iron deficiency anemia goes joint with hemoglobin values <13 g/dl in males (Nickerson, et al.1990). These data are important to be checked before starting the sport term, because deficiency can be developed in these athletes who are in the limit values (Nickerson, et al.1990; Resina, et al. 1991). Athletes have several risk factors for anemia and iron depletion due to poor nutritional intake of iron, hemolysis caused by repeated foot strikes, blood and iron loss through menstruation, gastrointestinal and urinary tracts and iron through sweating (Dubnov, Constantini, 2004). To be more concert, intermittent sports based in aerobic-anaerobic exercise, like football or field hockey, are seemed to have more iron lost (Resina, et al. 1991). Exercise, above all jogging, causes a significant iron expense. Running has an essential role in football training (Ekblom, 1986). Hence, a mechanism of anemia usually related to running can also be expected in ball players (Dubnov, Constantini 2004). Serum ferritin decreases because of protein-energy malnutrition, liver diseases, nephritic syndrome, neoplastic, while his hepaticas synthesis increases thanks to iron deficiency. On the other hand, serum ferritin concentration is reduced in case of an iron deficiency (Dubnov, Constantini, 2004). Unless after three days of intense exercise, athletes can have a false ferritin increased levels (Resina, et al. 1991).

Studies have looked at the effects of taper on blood parameters such as hemoglobin (oxygen carrying capacity of the red blood cells), hematocrit (the percentage of red blood cells in the blood) and red blood cell volume (the size of the red blood cells). Mujika (1997) found increases in all three parameters during taper that would suggest an improvement in aerobic capacity that would help endurance athletes. Researchers have also found increases in reticulocyte counts (new red blood cells), suggesting an increased erythropoiesis (red blood cell production) during taper. The increase in blood parameters may also help improve the buffering capacity of the blood through increased hemoglobin levels, which can increase the ability of the body to tolerate lactic acid produced in high intensity exercise.

Conclusion

Although The T-test showed no significant changes between pre-and post-training scores for all variables ($P \leq 0.05$).And however no significant differences were shown between the post-training scores in all variables for the two groups ($P \geq 0.05$). The improvement in linear taper is highest theimprovement in exponential taper.

References.

Bosch, A., 2008, Efficacy of a modified tapering protocol on swimming performance , SAJSM vol. 20, No. 2, pp 49 - 54

Dubnov, G., Constantini, N.W., 2004, Prevalence of iron depletion and anemia in top-level basketball players.Int J Sport NutrExercMetab. 14:30-37.

Ekblom, B., 1986, Applied Physiology of soccer. Sports Med 3:50-60.

Foss, M., Keteyian, S., 1998, Fox's Physiological Basis for Exercise and sport,6th.,ed.,McGraw Hill Publishing Company, New York.

Fox, S., 1996, Human Physiology, 5th ., ed., W.M.C. Brown publishers, New York,

Kenitzer, R., 1998, Optimal taper period in female swimmers based on blood lactate concentrations and performance, Medicine and Science in Sports and Exercise, 30(5), Supplement abstract 611.

Laurent, B., Jonathan, M., Denis, A., 2007, Effects of Tapering on Performance: A Meta-Analysis, Medicine & Science in Sports & exercise: Official Journal of the American College of Sports Medicine, Vol. 39, Nº. 8, pp 1358-1365

Lyle, R., Weaver, C., Sedlock, D. et al., 1992, Iron status in exercising women: The effect of oral iron therapy vs increased consumption of muscle foods. Am J ClinNutr. 56:1049-1055

Marcelo, P., Luis, E., Sergio, A. et al., 2007, Effects of Taper on Swimming Force and Swimmer Performance after an Experimental Ten-Week Training Program, The Journal of Strength and Conditioning Research, Volume 21, Issue 2, pp. 538–542

Martin, D., Coe, P., 1997, Better Training for Distance Runners, 2nd. ed., Human Kinetics, Champaign, IL, 1997.

Maughan, R., Glesson, M., Greenhaff, P., 1997, Biochemistry of Exercise and Training, OxfordUniversity Press, New York,

Mc-Ardle, W., Katch, F., Katch, V., 1996, Exercise Physiology, Energy Nutrition and Human Performance 4th., ed., Williams & Wilkins Co., Baltimore,

Mujika, I., 1998, The influence of training characteristics and tapering on the adaptation in highly trained individuals, Int. J. Sports. Med. 19: pp.439-446.

Mujika, I., 1998, The influence of training characteristics and tapering onthe adaptation in highly trained individuals: a review.Int. J. SportsMed.19:439–446.

Mujika, I., Goya, E., Grijalba, J., et al., 2002, Physiological and performance responses to a 6-day taper in middle-distance runners: influence of training frequency, Int. J. Sports Med. 23: pp.367-373,

Mujika, I.A., Goya, E., Ruiz, A. et al., 2002, Physiological and performance responses to a 6-day taperin middle-distance runners: influence of training frequency. Int.J. Sports Med.23:367–373.

Mujika, I.J.C., Chatard, T., Busso, A. et al., 1996, Use of swim-training profiles and performance data toenhance training effectiveness.J. Swimming Res.11:23–2996.

Nickerson, H.J., Holubets, M.C., Weiler, B.R. et al., 1990, Etiology and incidence of iron deficiency in adolescent athletes.ColloqueInserm 197:291-298.

Powers, S.K., Howley, E.T., 1997, Exercise Physiology, Theory and Application to Fitness and Performance, 3rd ., ed., Brown & Benchmark Publishers, Dubuque, Lowa,

Resina, A., Gatteschi, L., Giamberardino, M.A. et al., 1991, Hematological comparison of iron status in trained top-level soccer players and control subjects. Int J Sports Med. 12(5):453-

Rinehardt, K., Axtell, R., Fontana, C. et al., 2000, Effect of taper training in collegiate swimmers, Medicine and Science in Sports and Exercise, 32(5), supplement abstract 975.

Spodaryk, K., 1993, Hematological and iron-Related Parameters of Mate Endurance and strength Trained Athletes, European Journal of Physiology.Vol (67). No (1),

Sue, L., Laurel, T., Mackinnon, M., 1999, Physiological and psychometric variables for monitoring recovery during tapering for major competition, Medicine & Science in Sports & Exercise: August - Volume 31 - Issue 8 - pp 1205-1210

Sue, L., Laurel, T., Mackinnon, S. et al., 1998, Effects of three tapering techniques on the performance, forces and psychometric measures of competitive swimmers, European Journal of Applied Physiology and Occupational Physiology Volume 78, Number 3 / July, pp. 258-263

Viru, A., Viru, M., 2000, Nature of Training Effects, In: Exercise and sport Science, Edited by Garrett, W., et al., Williams & Wilkins, Philadelphia,

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 66-72
Original article

THE IMPACTS OF VISUAL TRAINING ON EYE SEARCH AND BASICS SKILLS AMONG FEMALE HANDBALL PLAYERS

HEBA LABIB[1]

Abstract

Purpose. Sports vision is conceived as a group of techniques directed to preserve and improve the visual function with a goal of enhancing sports performance through a process, which involves teaching the visual behavior required for different sporting activities. The aim of this study was to determine the impacts of visual training on eye search among female handball players.

Methods.(20) Female handball players. Divided into two groups, The experimental group comprised of (10) female handball players in the age groups of 18-22 years , all participations are members of a handball team of faculty of physical education , Helwan university. The subjects in this group underwent visual training program for (2) months. The control group comprised of (10) female handball players at the same age for the experimental group. Parameters assessed the high, weight, training age and saccadic eye movements. All subjects were free of any disorders known to affect performance, such as bone fractures, osteoporosis, diabetes and cardiovascular disease. The participants did not report use of any anti-seizure drugs, alcohol consumption, and neither smoking cigarette. And all participants were fully informed about the aims of the study, and gave their voluntary consent before participation. The measurement procedures were in agreement with the ethical human experimentation. All statistical analyses were calculated by the SPSS statistical package. The results are reported as means and standard deviations (SD). Differences between two groups were reported as mean difference ±95% confidence intervals (meandiff ± 95%). T test for samples was used to determine the differences in the parameters between the two groups. And Pearson correlations between all variables was used, the $p<0.05$ was considered as statistically significant.

*Results.*There were significant changes between pre-and post-training scores for all variables ($P\leq 0.05$) except The efficiency of sight for the eyes for experimental group .however no significant differences was shown between pre-and post-training scores for all variables . and significant changes between pre-and post-training scores for all variables ($P\leq 0.05$) for experimental group .however no significant differences was shown between pre-and post-training scores for all variables for control group($P\geq 0.05$)

*Conclusions.*Future research should consider these results, and determines the vision tests which strong connect with handball game.

Key words: eye movements, sports vision, handball

Introduction

There are many factors that influence sportsperformance, and one fundamental area ofextreme importance is training. Athletescommonly train their muscles, theirunderstanding of the game, and theirstrategies to outperform their opponents . But relatively little attention has beendedicated to training visual and attentionabilities within the sports world (Erickson, 2007).

Speed, strength and agility are qualities that are easily observed in elite athletes. On the other hand, Vision is an important asset in sports performance.

The acuteness of view of is the most important and integral indicator state of the function visual analyzer, and conventional methods of determining based on an assessment of the ability of view of distinguish between the details of static, high-contrast of visual of objects. The certain in such a way acuteness of referred to as a static the exigencies of view of (POPs). In everyday life and in the of professional activity the visual analyzer Rights should be constantly assess the such qualities of visual objects how their the volume of, the movement of objects, the distance between the objects, on the basis of the corporate representation of three-dimensional visual space (Stereoopsis) of one of the important characteristics of view of man is the ability of the optic analyzer to perceive and distinguish details of moving objects.Humans receive information from the external environment through several sensory organs. Vision is the most dominant sense, with 70% of all sensory receptors in the eye. (Yoshimitsu, Hiroshi, 2004). Vision, with components such as visual skills, contributes up to 80% of information obtained (Buys, 2004). Sports vision can be defined as the study of the visual abilities that are required in recreational and competitive sports, as well as the development of visual strategies for improvement of accuracy, stamina, consistency and hence performance of the visual system (Daune, Darlene, 1997). If the visual system is not receiving messages accurately or quickly enough, performance may suffer (Berman, 1990). It is

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important for visual systems to be functioning at advanced levels because athletic performance can be one of the most rigorous activities for the visual system (Hitzemen, Beckerman, 1993). If the visual system is not receiving messages accurately or quickly enough, performance may suffer.It is important for visual systems to be functioning at advanced levels because athletic performance can be one of the most rigorous activities for the visual system. The principle of training specificity indicates that athletes should train like they compete, meaning a cyclist will compete better in cycling if he/she trains riding the bike as compared to practicing running. Wilmore & Costill (2004) take the Principle of Specificity concept one step further when they say, "The training program must stress the physiological systems that are critical for optimal performance in the given sport"

Vision is much more than seeing 20/20. Vision is composed of many interrelated skills that can be trained and refined in order to enhance athletic performance. Demands on the visual system during athletic performance are rigorous. Therefore, an athlete who has superior visual skills will have a leading edge over his opponent

The perceptual mechanism is made up of 2 different levels of visual information .

Firstly: Hardware

The first type of visual information processing involves the reception of visualinformation; this is affected by the ocular characteristics of the athletes visualsystem. The hardware components of the visual system can be measured using Orthoptic or Optometric tests and forms the basis for a sports vision eyeexamination e.g. a snellens chart to measure static visual acuity .

Secondly: Software

The second type of visual information processing involves the perception of visual information this is influenced by the strategies an athlete develops throughexperience, which results in processing the incoming information more efficiently . Software aspects of sports vision includes information processing strategies ,encoding and retrieving perceptual information from memory, extracting relevantinformation from both advance cues and ball flight cues and the use ofanticipatory skills.

According to (Reichow & Stern, 1986) Sports vision encompasses performance orientated comprehensive vision care programmers involving education, evaluation, correction, protecting, and enhancement of an athlete.

At the 1994 Olympic Games in Lillehammer, from the 342 athletes representing 46 countries and ranging in age from 16 to 41, more than 171 (50%) had never received a comprehensive visual examination (Olympic Vision Centre, 1995). This corresponds with previous results from (Garner, 1977) who concluded that a significant amount of elite athletes compete in their specific sports with uncorrected visual defects. This may be because the sports they participate in are perhaps of low visual demand, or they compensate with higher functioning of other skills (Neil, 1995) or they may be performing below their true potential.

Studies in human vision are increasingly addressing the dynamic nature of visual activity (Ballard, et al. 1997; Findlay, 1998; Gilchrist, et al., 2001). Under most situations in which vision is employed, saccadic eye movements are used to scan the visual scene actively at a rate of three or four movements each second. The task of visual search has proved to be a very productive paradigm to investigate active vision (Findlay, Gilchrist, 2001).

The ability to catch a ball requires continuous convergence of the eyes, assessing the speed of the ball and predicting its path. To actually catch a ball, one must combine the eye's inputs with activation of the body's motor system to get the hands in the correct place. Lenoir et al showed that athletes with better depth perception would be more successful at catching compared to athletes with poor depth perception. Hoyt states, "It would seem difficult to find fault with the concept of training biological systems to maximize their normal functions". This would be especially true when it comes to athletic performance. Over the past few years, there has been an increase in utilization and acceptance of sports vision training. However, there is still an unmet need for sports vision training at the high school, college and professional levels. Not everyone is a proponent of vision training, perhaps as all people were not proponents of weight training 30 years ago. Concluding whether or not sports vision training, in a testing environment, results in better performance on the playing field is a difficult dilemma. Articles written by Abernethy & Woods (2001) claim that sports vision training is ineffective because the improved performance achieved after training is a result of test familiarity, although their sample size was very small. The real question here is, does training on a vision board, or other piece of sports vision training equipment, just make an athlete better at doing that piece of equipment or does it transfer to the real world? Like with most pieces of equipment, there is a learning factor regarding how the equipment works.

So, The visual system plays a critical role in sports performance, as it does in theperformance of virtually all perceptual-motor skills. To improve sportsperformance through improving vision an understanding of the visual demands ofdifferent sports is required. One also needs to consider the extent that differentvisual parameters can be modified through vision training. However the ultimatequestion is whether training certain aspects of the visual system can betranslated into improvements with on field performance .

- Defining Sports Vision in a clinical environmentSports vision testing incorporates :
- Vision screening and testing of athletes
- The prescription of sunglasses and protective eyewear
- The management of eye injuries
- Vision enhancement to improve performance .

The relationship between vision and skilled movements is not a spontaneous muscular response but represents asequence of complicated processes within the central nervous system. Anathlete absorbs information from the surrounding sporting environment andprocesses this information. The final output produces a movement response . This model of humans as information processing systems is commonly used toexplain the role of vision in producing and controlling skilled movement. Thehuman performance model was originally presented by Christenson, Winkelstein, (1988) The model assumes that perceptual-motor performance occurs when sensoryinput information is converted into a purposeful output action. In between theinput and output actions information passes through 3 hypothetical central processing mechanisms .

Perceptual mechanism

This mechanism receives information from receptors such as the retina for visualinformation and the inner ear for balance information. The perceptual mechanismre-organizes and interprets the information. The selection of information can beinfluenced by the athlete's previous experiences .

Decision mechanism

Information from the perceptual mechanism is passed through to the decisionmechanism, which decides the appropriate action. This mechanism is concernedwith response selection and strategy formation. This can also be influenced bythe athlete's previous experience .

Effector mechanism

If the decision mechanism selects a motor response, the relevant information ispassed onto the effector mechanism, which controls and organizes the sequence

However, to the author's knowledge, a systematic analysis of the sports vision involved in handball game is still lacking. Hence, the aim of this study was to determine the impacts of visual training on eye search among female handball players.

Methods.

Participants.

20) Female handball players. Divided into two groups, The experimental group comprised of (10) female handball players in the age groups of 18-22 years , all participations are members of a handball team of faculty of physical education , Helwan university. The subjects in this group underwent visual training program for (2) months. The control group comprised of (10) female handball players at the same age for the experimental group. Parameters assessed the high, weight, training age and saccadic eye movements. All subjects were free of any disorders known to affect performance, such as bone fractures, osteoporosis, diabetes and cardiovascular disease. The participants did not report use of any anti-seizure drugs, alcohol consumption, and neither smoking cigarette. And all participants were fully informed about the aims of the study, and gave their voluntary consent before participation. The measurement procedures were in agreement with the ethical human experimentation.

Measurement

Eye movements of participants were recorded via Videonystagmography (VNG).

Videonystagmography (VNG) is a series of tests used to determine the causes of a patient's dizziness or balance disorders. If dizziness is not caused by the vestibular portion of the inner ear, it might be caused by the brain, by medical disorders such as low blood pressure, or by psychological problems such as anxiety. VNG is a test used to determine whether or not dizziness may be due to inner ear disease.

VNG is a complete diagnostic system for recording, analyzing and reporting involuntary eye movements, called nystagmus, using video imaging technology. Hi-tech video goggles with infrared cameras are worn while you look or lie in different positions.

There are four main parts to the VNG. The saccade test evaluates rapid eye movements. The tracking test evaluates movement of the eyes as they follow a visual target. The positional test measures dizziness associated with positions of the head. The caloric test measures responses to warm and cold water circulated through a small, soft tube in the ear canal. The cameras record the eye movements and display then on a video/computer screen. This allows the examiner to see how the eyes move which is very helpful in assessing balance system health.

Fig 1 explain Videonystagmography (VNG)

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Visual skills tests

- Eye - hand Coordination
- Static visual accuracy
- Dynamic visual accuracy
- Peripheral Vision
- Visual tracking of the dominant eye
- Visual reaction time
- Depth perception
  - From a distance of 10 cm
  - From a distance of 20 cm
  - From a distance of 30 cm
- Visual recognize to the dominant eye
  - Vertical up
  - Vertical down
  - Horizontal Right
  - Horizontal Left
- The efficiency of sight for the eyes

Basics skills tests

- Shooting
- Dripping
- Passing

Visual Training program protocol.

The proposed program aims using the visual development of training and capacity development of the eye and visual skills variables in handball forfemale students at the Faculty of Physical Education for Girls –Helwan University.

The foundations of the proposed training program:

The researcher built visual training program in accordance with the scientific foundations of the following:

- Taking into account the principle of diversity in the performance of the training exercises inside the unit so as not to feel bored student and monotony.

Taking into account that the training modules include (4) main themes are:

1. Exercisesfor firming put the head
2. Exercises to improve sight distance
3. Exercises for the development of precision optical
4. Exercises for the development of visual perception

Temporal distribution of the proposed training program:

- Physical configuration (warm-up). (5) M
- Stretchmuscles. (10) M
- Visual exercises. (20) M
- Calm and closing. (5) M

Statistical analysis

All statistical analyses were calculated by the SPSS statistical package. The results are reported as means andstandard deviations (SD). Differences between two groups were reported as mean difference ±95% confidence intervals (meandiff± 95% CI).Student's t-test for independent samples was used to determine the differences in fitness parameters between the two groups. The $p<0.05$ was considered as statistically significant.

Results.

Table 1. Age, Anthropometric Characteristics and Training Experience of the Groups (Mean ± SD)

Group	N	Age [years]	Weight [kg]	Height [cm]	BMI [kg/m2]	Training experience[years]
Handballplayers	20	**21.63 ± 3.9**	**70.54 ± 4.1***	**172.22 ± 5.2**	**24.1 ± 2.1**	**5.1 ± 1.3**

Table 1 shows the age and anthropometric characteristics of the subjects. There were no significant differences observed in the anthropometric characteristics, age and Training experienceamong the subjects.

Table 2. Mean ±SD in visual skillsbetween the control and experimental groups

Variables		Unit	Control			Experimental			T test between two groups
			pre	post	T test	pre	post	T test	
Eye - hand Coordination		Count(N)	18.23 ± 1.62	19.12 ± 1.44	Not Sign	17.99± 1.45	22.35 ±1.87	Sign	Sign
Static visual accuracy		Count(N)	20.15 ± 2.11	21.84 ± 1.94	Not Sign	20.36 ± 2.25	25.71 ±2.66	Sign	Sign
Dynamic visual accuracy		Degree	2.71 ± 0.49	2.79 ± 0.56	Not Sign	2.73 ± 0.51	2.83 ± 0.57	Sign	Sign
Peripheral Vision		Degree	6.17 ± 1.58	6.23 ± 1.54	Not Sign	6.09 ± 1.47	6.49 ± 1.33	Sign	Sign
Visual tracking of the dominant eye		Degree	2.11 ± 0.77	2.26 ± 0.51	Not Sign	2.13 ± 0.58	2.37 ± 0.49	Sign	Sign
Visual reaction time		100/ Second	20.98 ± 1.17	20.89 ± 1.33	Not Sign	21.00 ± 1.02	20.22 ± 1.33	Sign	Sign
Depth perception	From a distance of 10cm	Cm	6.47 ± 1.17	5.11 ±1.67	Not Sign	6.68 ± 1.69	4.09±1.95	Sign	Sign
	From a distance of 20cm	Cm	7.69 ± 1.38	7.22 ±2.03	Not Sign	7.62 ± 1.38	7.02 ±2.13	Sign	Sign

	From a distance of 30cm	Cm	7.91 ± 1.74	7.84 ±2.11	Not Sign	7.88 ± 1.69	7.70 ±2.24	Sign	Sign
Visual recognize (dominant eye)	Vertical up	Cm	70.26 ± 4.32	71.34 ±5.01	Not Sign	69.84 ± 4.32	74.64 ±4.77	Sign	Sign
	Vertical down	Cm	58.36 ± 4.47	60.14 ±4.76	Not Sign	58.22 ± 4.35	63.25 ±4.69	Sign	Sign
	Horizontal Right	Cm	79.87 ± 4.36	81.27 ±4.82	Not Sign	80.00 ± 4.00	83.02 ±4.66	Sign	Sign
	Horizontal Left	Cm	75.37 ± 5.03	77.69 ±5.11	Not Sign	74.74 ±4.81	81.06 ±4.92	Sign	Sign
The efficiency of sight for the eyes		Degree	4.42 ± 1.15	4.45 ±1.23	Not Sign	4.00 ± 1.02	4.05 ±1.10	Not Sign	Not Sign
saccadic movements		Degree	6.75 ±0.87	6.80 ±0.69	Not Sign	6.69 ±0.55	8.24 ±0.63	Sign	Sign
gaze behavior		Degree	7.11 ±0.91	7.25 ±1.01	Not Sign	7.36 ±0.91	8.92 ±0.95	Sign	Sign
Optokinetic		Degree	6.28 ±0.75	6.34 ±0.81	Not Sign	6.31 ±0.79	7.94 ±0.83	Sign	Sign

Table 2. showed a significant changes between pre-and post-training scores for all variables (P≤ 0.05) except The efficiency of sight for the eyesfor experimental group .however no significant differences was shown between pre-and post-training scores for all variables .

Table 3. Mean ±SD in basichandball skillsbetween the control and experimental groups

Variables	Unit	Control			Experimental			T test between two groups
		pre	post	T test	pre	post	T test	
Shooting	Degree	4.33 ± 1.29	5.36 ± 1.21	Not Sign	4.41 ± 1.62	7.22 ± 1.68	Sign	Sign
Dripping	Degree	4.15 ±1.11	5.84 ± 1.94	Not Sign	4.19 ± 2.11	8.71 ± 1.53	Sign	Sign
Passing	Degree	4.71 ±1.49	5.79 ±1.56	Not Sign	4.76 ±1.37	8.73 ±1.35	Sign	Sign

Table 3. showed a significant changes between pre-and post-training scores for all variables (P≤ 0.05) for experimental group .however no significant differences was shown between pre-and post-training scores for all variables for control group(P≥ 0.05) .

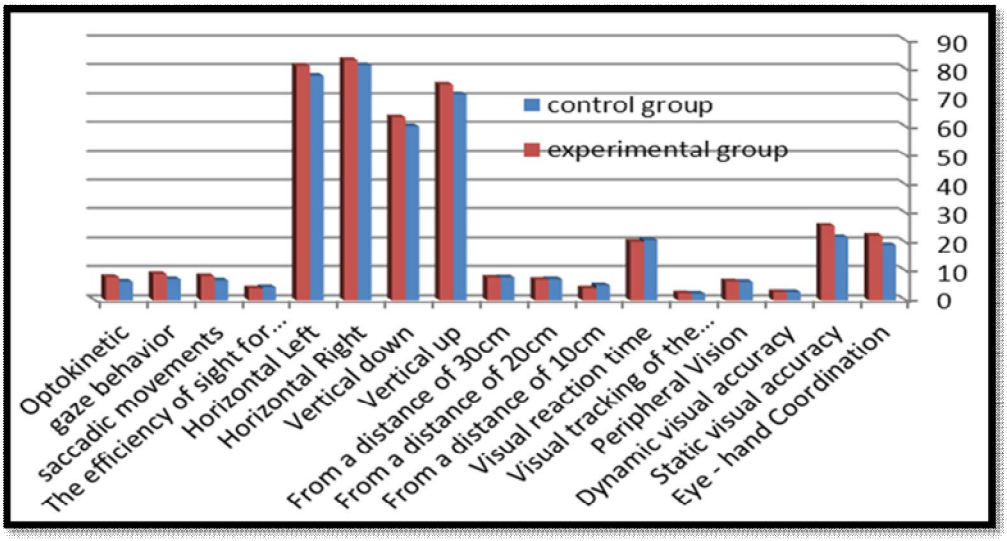

Fig 2 explain the visual skillsbetween the control and experimental groups

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
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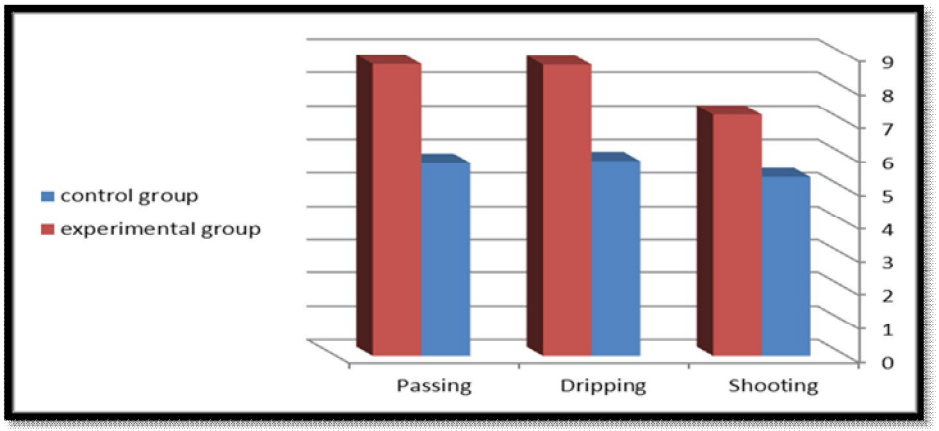

Fig 3 explain the basic handball skillsbetween the control and experimental groups

Discussion

This study aimed to determine the impacts of visual training on eye search among female handball players.This study is the first report on the dynamics of saccadic adaptation in handball and to investigate whether athletes perform better with respect to saccadic adaptation in both positive and negative directions. The results clearly show that there is change in the magnitude of saccadic adaptation between taekwondo players with high level and low level in both gain increasing and decreasing saccadic adaptation

This supports the idea that the ocular motor system does tolerate overshooting of the target and also that undershooting is common during saccade execution.

The visual training in the field of sports is a relatively small area in the system of athletic performance, but of great importance, and became a great interest in them and is increasingly active in recent periods.

In this regard, underlines Feisal, (2004) that the human body does not respond, but what meets the eye, as well as the coaches ask their players to be a sample on the ball and follow up and watching the ball accurately and this is just a confirmation of the importance of the role of visual in the sport of tennis, however, we find the lack of attention visual exercises in the sport of Handball.

Based on the foregoing, the researcher has conducted this study under the title "exercises visual impact on the performance of the skill level transmitter and some physical variables among emerging Handball"

Quick and accurate eye movements are essential to athletic success. Fencers and handball players require eye movement in a variety of directions. Saccadic eye movements are used to direct favela fixation towards objects of interest (Henderson, Hollingworth, 2003). Saccades depend on information from the periphery of the retina to tell the brain that there is something of interest in the field that should be recognised12

Conclusion. The time constant for gain reduction is much shorter in comparison to a gain increase.

Since, the results suggest that magnitude differences in saccadic adaptation between the groups is significant, this results is consistent with earlier findings in literature. (Raiju, 2004)

Future research should consider these results, and determines the vision tests which strong connect with handball game.

References

Abernethy, B., Wood, J., 2001, Dogeneralized visual training programs forsport really work? An experimental investigation.J. Sports Sci.19: 203-22

Ballard, D.H., Hayhoe, M.M., Pook, P.K., Rao, R.P., 1997, Deictic codes for the embodiment of cognition. Behavioral and Brain Sciences, 20, 723–767.

Berman, A., 1990, Starting a sports vision practice. Optometric Management 25:30-4.

Buys, J.H., 2002, The Development of Norms and Protocols in Sports Vision Evaluations.Master's Thesis, Rand Afrikaans University, Johannesburg, South Africa.

Christenson, G.N., Winkelstein, A.M., 1988, Visual skills of athletes versus non-athletes: development of a sports vision testing battery. Journal of the American Optometric Association, 59, 666-675.

Daune, K., Darlene, A.K., 1997, The impact of vision and vision training on sports performance. Journal of Physical Education, Recreation and Dance .23 63- 71.

Erickson, G.B., 2007, Sports vision: vision care for theenhancement of sports performance. ButterworthHeinemann, Oxford UK.

Feisal, H., 2004, Acquiring vision skills essential for tennis, Perceptual & Motor Skills, 70, 131-141.

Findlay, J.M., 1998, Active vision: vision in everyday life. Current Biology, 8, R640–R642.

Findlay, J.M., Gilchrist, I.D., 2001, Visual attention: the active vision perspective. In Jenkins M., L. Harris (Eds.), Vision and Attention. (pp 83–103). New York: Springer Verlag.

Garner, A.I., 1977, An overlooked problem: athlete's visual needs. Physician and Sports Medicine . (5) 74-82.

Gilchrist, I.D., North, A., Nood, B., 2001, Is visual search really like foraging? Perception, 30, 1459–1464

Henderson, J., Hollingworth, A., 2003, Eye movements and visual memory: Detecting changes to saccade targets in scenes. Perception & Psychophysics 65: 58-71.

Hitzemen, S., Beckerman, S., 1993, What the literature says about sports vision. Optom.Clin. 3: 145-69.

Neil, M., 1995, (Personal communication). In: DFC Loran & CJ MacEwan, Eds. Sport Vision. London: Butterworth Heinemann.

Olympic Vision Centre, Lillehammer, 1995, Findings of the Bausch & Lomb Survey. 1994. In: DFC Loran & CJ MacEwan. Sports Vision. London: Butterworth Heinemann.

Raiju, J., 2004, A Study of Saccade Dynamics and Adaptation in Athletes and Non Athletes, Master's Thesis, University of Waterloo, Ontario, Canada.

Reichow, A.., Stern, N.S., 1986, Optometric trends in sports vision .Optometric Extension Program Foundation. Curriculum II.59 355-368.

Wilmore, J., Costill, D., 2004, Physiologyof Sport and Exercise. Third Edition .Champaign IL: Human Kinetics, USA.

Yoshimitsu, K., Hiroshi, Y., 2004, Training Effects of Visual Function on College Baseball Players, Human Performance Measurement Vol.1, 15-23

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
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Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 73-77
Original article

EFFECTS OF DAILY WORKOUT ON AGILITY, FLEXIBILITY AND REDUCED THE WEIGHT AMONG THE IRAQIAN WOMEN

HODA BADAWY[1], GHUSOON NATIQ[1]

Abstract

Purpose. Core strength has been subject to research since the early 1980s. The research has highlighted the benefits of training these processes for people with back pain and for carrying out everyday activities. However, less research has been performed on the benefits of Daily workoutfor employed women. Hence, The research aims to identify the effective use of group exercises Daily workout) in develop my recipe agility and flexibility for non - practice of sports activity**.** and effective use of group exercises Daily workout) in Weight Loss Non practices for sports activity.

Methods. The sample contains (20) female from Iraq, work in establishes, all of them were fat women and practice table work (mean ± SD, age 49 ± 6.5 years High, 160.64 ± 6.69 cm. Weight, 82.39 ±2.82kg). Subjects were required to read and complete a health questionnaire that collected detailed that confirmed that there was no history of injuries, diabetes or recent surgery.

Results. In this study we revealed a statistically significant increase in Skinfold Measurements (Abdominal, Subscapular and Thigh) Sit and Reach Flexibility Test and Agility Shuttle Run Test in female group.

Conclusions. Finally, Daily workout for 10 weeks, resulted in an increase in physical variables (flexibility and agility) and skinfold test, and decreases the weight .These results have to be taken into account by women in order to better understand and implicated of these concepts in their daily life.

Key words: Daily workout, agility, employed women.

Introduction

Proved many of the studies that the practice of moderate physical activity at least on a regular basis helps an individual to maintain his physical and psychological well -being and to achieve ideal weight has On the other hand, the lack of practice of physical activity on a regular basis and comfort may contribute to exposing the individual to serious diseases that may affect the health of the individual is or another. As the relationship of physical activity with obesity correlation where influenced by each other shows through the mutual relationship between the energy consumed by food or low physical activity, or both upset the energy balance equation which leads to obesity.

Obesity is one of the common health problems associated with the non- exercise physical activity and is intended to obesity (over weight) any increase in weight and thus increase the percentage of fat in the body and collects in certain places may affect one way or another on the shape of the body and its movement has been seen by some to the disease being something simple may be seen others that he simply unacceptable view or distortion of the body and its beauty. But it may end up to very serious things and therefore we are not able to shut off. (Parshad, 2004).

So the researchers came to the use of physical activity (represented a group exercises to develop agility and flexibility)(Yoga exercises for weight loss) within the training curriculum is intended for a sample of the wives who practice Activities desktop is far from sports activity.

The importance of this research use of group exercises (Daily workout) in the development of agility, flexibility, and Weight Loss for non-practicesof sports activity.

There is no doubt about that the regular practice of sports activity moderate severity at least a high fitness of the individual carries with it the positive effects great on various body functions and health benefits, the physical inactivity and stagnation for comfort driving to a number of negative effects on the health of the individual and society. (Van Puymbroeck, et al. 2007).

So, emerged from the research problem of argument prevailing] obesity a disease of the times and agility demand for the fact that obesity a state of metabolic disorders occur when there is a difference to the balance between energy consumption and stored the body as well as the weight loss has become a necessity of life, but the research sample group of women who suffer from obesity and the office of the nature of their businesses and practice lackof Sport , which of us had to find a group of exercises intended to develop agility and flexibility and thus reduce weight throughpracticethose various exercises + private yoga exercises for weight loss.

Obesityis increased body weight for the normal limit as a result of the accumulation of fat in which this accumulation is the result of an imbalance between food intake and energy consumed in the body.Or is the cumulative increase in body fat for the missing

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consumption. Or is the increase in fatty substances in the body for a perfect border accepted. Where fatty substances accumulate under the skin and in various tissues and are on degrees which is not just a numerical increase in weight as it is affecting the appearance of human movement and activity and health in general.Or learn it for this pathological condition in which accumulate excess fat in the body to cause a degree in the occurrence of adverse effects on health , leading thus lower the average age of the individual and of falling increased health problems.

Obesity can be divided according to their distribution in the body to:

General obesity: - is the product of the fat to accumulate in various areas of the body and internal virtual resulting in inconsistency in shape with weight gain.

Topical Obesity: - a specific cluster of fat in certain areas of the body varies depending on race, sex, genetic and environmental factors.

And concentrated these lipid gatherings when women in the hip, buttocks, thighs and the lower abdomen and arms.

There are two types of obesity:

The first type: - show obesity in middle age is caused due to an increase in the size of the fat cells and this can be cured proper nutrition and increased sports activities.

Type II: - Obesity talked since childhood and continues to be treated often harder than the first type because of the increased number of fat cells in the body which cannot be disposed of in old age through diet and physical activity, but may need surgical interventions.

Often produces obesity more excess calories with the lack of movement and others as.

- Lack of activity and movement
- Style food
- Psychological factors
- Breach of the endocrine glands

Relationship of physical activity with obesity is correlated with affected each other, As has the physical activity since antiquity a clear role and important in the equation of equilibrium energy as the increase in energy consumed through food or low physical activity, or both prejudice equation balancing energy which leads to obesitywhichaffect a negative impact on fitness, which in turn react negatively and offered with physical activity.

The distribution of fat in a woman's body in multiple places where this distribution is normal " and healthy " When the weight naturally " as the fat involved in many important functions, but when they exceed the normal limit as these increase and clear in the body from the outside in areas clear under skin and grease usually distributed in areas of the hip, buttocks, abdomen, arms, and it is possible to focus on the chin and knees. (Hagins, et al. 2007).

The collected grease in the regions of the chest and abdomen of the most dangerous areas gathered grease being help in the incidence of many diseases , especially diabetes where to collect fat in the abdominal area directly contribute to the reduction or loss of activity and the sensitivity of the work of the enzyme leads to the occurrence of diabetes.

And prevention methods to get rid of grease and excess weight:

- Diet
- Aerobic exercise include- :

I. aerobics exercises
II. walking and jogging
III. Pilates exercises

- Sports equipment for Weight Loss
- Medical drugs
- Use Clothing Slimming
- Bariatric (weight loss surgery)

Work out in a quiet and spacious location (music is okay). Work toward improvement in every exercise that you do, otherwise it is not worth doing. Stretching, jumps and tumbling drills must be practiced every day! Develop a plan for cardiovascular and strength training that will work for you. Bolded items are new!

STRECH OUT

It is important that all exercises and weight training is preceded by a full stretch out. Injuries occur without thorough stretching. Additionally, cheerleading and tumbling required flexibility. Hold each stretch for 30 seconds to the point of slight burning. Do not bounce. Work towards increased flexibility with each stretch out.

The research aims to identify theeffective use of group exercises (Daily workout) in develop my recipe agility and flexibility for non - practice of sports activity**.** and effective use of group exercises Daily workout) in Weight Loss Non practices for sports activity.

Material and Methods:

Subjects:

The sample contains (20) female from Iraq, work in establishes, all of them were fat women and practice table work (mean ± SD, age 49 ± 6.5 years High, 160.64 ± 6.69 cm. Weight, 82.39 ±2.82kg). Subjects were required to read and complete a health questionnaire that collected detailed that confirmed that there was no history of injuries, diabetes or recent surgery.

Daily workout routine:

This is a 7-day routine, for general fitness, which is suitable for any female that has never lifted a weight before; it is in fact the routine that I began with, having never lifted a weight. It is also very practical for those not wishing to go to a gym, because all the exercises can be performed at home, with a few

pieces of equipment; all of the equipment will be based around your own level of strength.

The plan:

Day 1: Weight Routine A
Day 2: Cardio 45 minutes
Day 3: Weight Routine B
Day 4: Cardio 45 minutes
Day 5: Weight Routine C
Day 6: Cardio 45 minutes
Day 7: A 60 minute walk/cycle ride (at a good pace, based on your current fitness level)

The routine has been set out as Day1 through to Day 7, because it is important to realize that you can start the plan on the best day to suit your own schedule; for some, Saturday is the best day for day 7, for others it will be Sunday or maybe even Thursday. Because Day 7 is the only session that you need to do outdoors, even though you can also do this indoors as well, try to place day 7 at the most convenient time in your weekly schedule for you to be outdoors; so, if you place Day 7 on a Wednesday, then Day 1 will be a Thursday because it is the day that immediately follows it and because this is a 7-Day routine.

Procedures

Subjects were assessed before and after a 10-week training program Tests followed a general warm-up that consisted of running, calisthenics, and stretching.

Skinfold Measurement

Taking skinfold measurement is a common method for determining body fat composition. Accurate measurement technique is important. Here is the standard technique that is used. You should read this information in conjunction with the description of each of the standard measurement sites.

equipment: skinfold calipers, tape measure

Procedure:

Estimation of body fat by skinfold thickness measurement. Measurement can use from 3 to 9 different standard anatomical sites around the body. The right side is usually only measured (for consistency). The tester pinches the skin at the appropriate site to raise a double layer of skin and the underlying adipose tissue, but not the muscle. The calipers are then applied 1 cm below and at right angles to the pinch, and a reading in millimeters (mm) taken two seconds later. The mean of two measurements should be taken. If the two measurements differ greatly, a third should then be done, then the median value taken.

Skinfold Measurement Sites

There are three sites around the human body at which the skinfold pinch can be taken. The most common sites are featured below, with some of the less common and outdated sites also listed. Whenever skinfold measureis taken, it is important for accuracy to find the correct location to take the skinfold pinch, and therefore the correct anatomical terms are used to describe the landmarks. The caliper is applied 1 cm below and at right angles to the pinch.

Abdominal Skinfold

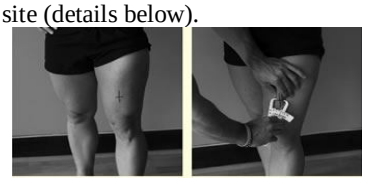
The abdominal skinfold site is one of the common locations used for the assessment of body fat using skinfold caliper.

Subscapular Skinfold

The subscapular skinfold site is one of the common locations used for the assessment of body fat using skinfold calipers.

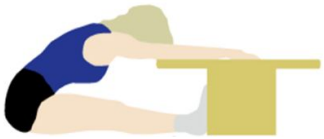
Thigh Skinfolds

The anterior thigh skinfold site (also called the front thigh or mid-thigh) is one of the common locations used for the assessment of body fat using skinfold calipers. Less commonly the posterior thigh site is used, and another site on the leg is the patella or knee cap site (details below).



Sit and Reach Flexibility Test

The sit and reach test is a common measure of flexibility, and specifically measures the flexibility of the lower back and hamstring muscles. This test is important as because tightness in this area is implicated in lumbar lordosis, forward pelvic tilt and lower back pain. This test was first described by Wells and Dillon (1952) and is now widely used as a general test of flexibility.



Equipment required: sit and reach box (or alternatively a ruler can be used, and a step or box)

Procedure: This test involves sitting on the floor with legs stretched out straight ahead. Shoes should be removed. The soles of the feet are placed flat against the box. Both knees should be locked and pressed flat to the floor - the tester may assist by holding them down. With the palms facing downwards,

and the hands on top of each other or side by side, the subject reaches forward along the measuring line as far as possible. Ensure that the hands remain at the same level, not one reaching further forward than the other. After some practice reaches, the subject reaches out and holds that position for a one-two seconds while the distance is recorded. Make sure there are no jerky movements.

Scoring: The score is recorded to the nearest centimeter or half inch as the distance reached by the hand. Some test versions use the level of the feet as the zero mark, while others have the zero mark 9 inches before the feet. There is also the modified sit and reach test which adjusts the zero mark depending on the arm and leg length of the subject. The table below gives you a general guide for expected scores (in cm and inches) for adults using zero at the level of the feet (otherwise add 23cm or nine inches).

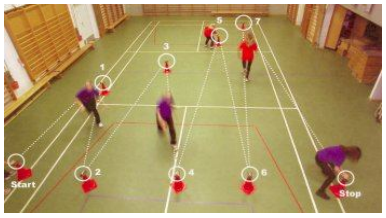
Agility Shuttle Run Test

This test describes the procedure as used in the President's Challenge Fitness Awards. The variations listed below give other ways to also perform this test.

Purpose: this is a test of speed and agility, which is important in many sports.

Equipment required. Woodenblocks, marker cones, measurement tape, stopwatch, non-slip surface.

Procedure: This test requires the person to run back and forth between two parallel lines as fast as possible. Set up two lines of cones 30 feet apart or use line markings, and place two blocks of wood or a similar object behind one of the lines. Starting at the line opposite the blocks, on the signal "Ready? Go!" the participant runs to the other line, picks up a block and returns to place it behind the starting line, then returns to pick up the second block, then runs with it back across the line.



Statistical Analysis

All statistical analyses were calculated by the SPSS statistical package. The results are reported as means and standard deviations (SD). Differences between pre and posttests were reported as mean difference ±95% confidence intervals (mean diff ± 95% CI). Student's t-test for dependent samples was used to determine the differences in fitness parameters between the pre and posttests. The $P<0.05$ was considered as statistically significant.

Results.

Table 1.The differences in Skinfold Measurements and physical tests in the experimental group.

Variables	Experimental		T sign
	Pre	Post	
Skinfold Measurements			
Abdominal	44.17± 2.60	38.22±5.81	Sign
Subscapular	39.92±2.75	35.81±1.93	Sign
Thigh	47.33±4.21	41.57±2.55	Sign
Weight	82.39 ±2.82	77.64 ± 2.13	Sign
Flexibility			
Sit and Reach Flexibility Test	14.08±0.79	15.73 ± 0.40	Sign
Agility			
Agility Shuttle Run Test	9.75±0.41	8.34±0.76	Sign

The T score showed significant differences in all variables between the pre and post-training for the experimental group. ($P\leq 0.05$)

Discussion.

The hypothesis of the present study was daily workout improves flexibility, agility and body composition. In this study we revealed a statistically significant increase in Skinfold Measurements (Abdominal, Subscapularand Thigh) Sit and Reach Flexibility Test and Agility Shuttle Run Test in female group. The physiologic responses to daily workout and yogic practices have been well studied (O'Sullivan, Bell, 2000). Yoga training is associated with improvement of flexibility and agility (Madanmohan, et al. 1992). Earlier studies also noted a statistically significant increase in flexibility and agility with 8 weeks of yoga practice in informal caregivers; as evaluated by chair stand test (Van Puymbroeck, et al. 2007) Similar results were found by the other researchers with yoga practice (Parshad , 2004; Tran, et al. 2001).

During daily workout, muscles of the entire body experience stretch and pressure alternately and therefore it is said to give more benefits in short duration of time (Unkule, 2004; Kirkwood, et al. 2005). Many of its exercise build flexibility because they require sustained contractions of many muscle groups of the entire body, which is comparable to resistance training (Campbell, et al. 1994). In the present study, more improvement is observed in flexibility and agility of upper body.

The Daily Workout gives more motivated and feeling great to stick with it.

Agility depends on skeletal muscle characteristics, oxygen uptake, its circulation and utilization. Performing yoga as a compound of Daily Workout is similar to aerobic exercise as it involves static stretching and slow dynamic component with optimal stress on cardio-respiratory system (Sinha, et al. 2004). Incorporating yoga session contributes to significantly intense physical activity to improve cardio-respiratory fitness in unfit or sedentary individuals (Hagins, et al. 2007). Yogic practices increase oxygen uptake, which correlated with agility (Parshad, 2004). With increase in these parameters, Daily Workout practice leads to improvement in agility.

In the present study, Daily Workout practice has led to decrease in body weight and% body fat and increase in% lean body mass. Daily Workout practices lead to increase in energy expenditure resulting in statistically significant changes in body composition (Sahay, 2007; Bera, Rajapurkar, 1993). Practice of only hatha yoga for 30 min a day increased MET to 2.5 in females. (MET is multiple of resting metabolic rate. 1 MET= oxygen uptake of 3.5 ml/kg/min) But inclusion of sun salutation in the session increased the MET to 3.74 (C. Clay, et al. 2005). Thus yoga incorporates a significant aerobic component to the yoga activity. This fact is reflected in the change of body weight and body fat percent. However, the changes in% body fat were statistically significant in females.

Conclusions.

Finally, Daily workout for 10 weeks, resulted in an increase in physical variables (flexibility and agility) and skinfold test, and decreases the weight .These results have to be taken into account by women in order to better understand and implicated of these concepts in their daily life.

References

Bera, T., Rajapurkar, M., 1993, Body composition, cardiovascular endurance and anaerobic power of yogic practitioner. Indian J Physiol Pharmacol. ;37:225–8.

Bhutkar, M., 2008, Principles of exercise prescription. 1st ed. New Delhi: Jaypee Brothers Medical Publishers (P) ltd; Assessment and development of muscular fitness; pp. 122–36.

Campbell, W., Crim, M., Young, V., Evans, W., 1994, Increased energy requirements and changes in body composition with resistance training in older adults. Am J ClinNutr. 1994;60:167–75.

Clay, C., Lloyd, L., Walker, J. et al., 2005, The metabolic cost of hatha yoga. J Strength Cond Res.;19:604–10.

Hagins, M., Moore, W., Rundle, A., 2007, Does practicing hatha yoga satisfy recommendations for intensity of physical activity which improves and maintains health and cardiovascular fitness? BMC Complement AlternatMed. ;7:40.

Kirkwood, G., Rampes, H., Tuffrey, V. et al., 2005, Yoga for anxiety: a systematic review of the research evidence. Br J Sports Med. ;39:884–91.

Madanmohan, A., Thombre, D.P., Balakumar, B. et al., 1992, Effect of yoga training on reaction time, respiratory endurance and muscle strength. Indian J PhysiolPharmacol ;36:229–33.

Mcardle, W., Katch, F., Katch, V., 2001, Exercise Physiology Energy, Nutrition and Human Performance.5th ed. Baltimore, USA: Lippincott Williams and Wilkins; Muscular strength: Training muscle to become stronger; pp. 501–3.

Mcardle, W., Katch, F., Katch, V., 2001, Training for anaerobic and aerobic power. Exercise Physiology Energy, Nutrition and Human Performance. 5th ed. Baltimore, USA: Lippincott Williams and Wilkins; pp. 458–99.

O'sullivan, S., Bell, C., 2000, The effects of exercise and training on human cardiovascular reflex control. J AutonNervSyst ;81:16–24.

Parshad, O., 2004, Role of yoga in stress management. West Indian Med J. ;53:191–4.

Sahay, B., 2004, Role of yoga in diabetes. J Assoc Physicians India. ;55:121–26.

Sinha, B., Ray, U., Pathak, A., Selvamurthy, W., 2004, Energy cost and cardiorespiratory changes during the practice of Surya Namaskar. Indian J PhysiolPharmacol. ;48:184–90.

Sun, S., Chumelea, W., Heymsfield, S., et al., 2003, Development of bioelectric impedance analysis prediction equations for body composition with the use of a multi component model for use in epidemiological surveys. Am J ClinNutr ;77:331–40.

Tran, M., Holly, R., Lashbrook, J., Amsterdam, E., 2001, Effects of Hatha yoga practice on the health-related aspects of physical fitness. PrevCardiol. ;4:165–70.

Unkule, N., 2004, National Institute of Naturopathy; Advantages of suryanamaskars; Nisargopcharvarta. Pune, India, p. 7–8.

Van Puymbroeck, M, Payne, L., Hsieh, P., et al., 2007, A Phase I Feasibility Study of Yoga on the Physical Health and Coping of Informal Caregivers.Evid Based Compliment AlternatMed ;4(4):519–529.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 78-84
Original article

EFFECT OF CONCURRENT TRAINING ON CD34+/CD45 STEM CELLS, VO_2 MAX, CERTAIN PHYSICAL VARIABLES AND RECORD LEVEL OF 2000_M ROWING.

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Abstract

*Purpose.*Concurrent training is term used to characterize the method whereby aerobic and strength training exercises are performed in the same training session. That strategy was chosen because energy expenditure could be maximized both during and after the training through increased oxygen consumption after exercise .the aim of this study was to determine the effect of effect of concurrent training on cd34+/cd45 stem cells , vo_2 max, certain physical variables and record level of 2000m rowing.

Methods. Twenty five young male rowers. Divided into three experimental groups,Concurrent (CG, n = 8), strength (SG, n = 8), and aerobic training group (EG, n = 9). Each group trained 3 times a week for 8 weeks, strength training, aerobic training, or both types of training in the same session. Parameters assessed the high,weight, power,strength; training age, vo_2 max (Astrand Treadmill Test was used to determine the vo_2max) and Blood Sample were collected from an antecubital vein into vacuum tubes to measure the Cd34+/Cd45 Stem Cells. All subjects were free of any disorders known to affect performance, such as bone fractures, osteoporosis, diabetes and cardiovascular disease. The participants did not report use of any anti-seizure drugs, alcohol and cortoon consumption, neither smoking cigarette. And all participants were fully informed about the aims of the study, and gave their voluntary consent before participation. The measurement procedures were in agreement with the ethical human experimentation.

*Results.*The results indicated that increased significantly between the pre and post measures for the three experimental groups in accounting of cd34+/cd45 stem cells , power , strength , vo_2 max and record level of 2000m rowing for concurrent group(CG, n = 8) .

*Conclusions.*The results indicate that two months of concurrent training program can improve physicaland record level of 2000m rowing and stem cells among young rowers.

*Key words:*Concurrenttraining – Cd34+/Cd45 Stem Cells, 1500M Running

Introduction

Sports' training is done for improving sports performance. The sports performance, as any other type of human performance, is not the product of on single system or aspect of human personality. On the contrary, it is the product of the total personality of the sports person. The personality of a person has several dimensions e.g., physical, physiological, social and psychic. In order to improve sports performance the social and psychic capacities of the sports person also have to be improved in addition to the physical and physiological ones. In other words the total personality of a sportsman has to be improved in order to improve his performance. Sports' training, therefore, directly and indirectly aims at improving the personality of the sportsman. No wonder, therefore, sports training is a pedagogical process.

So as to have the utmost efficiency, consistent improvement and balanced abilities, a sportsperson must participate in year round conditioning programs. For that they must put their bodies under a certain amount of stress to increase physical capabilities. Physical exercise is extremely important for maintaining physical fitness including healthy weight; building and maintaining healthy bones, muscles, and joints; promoting physiological well-being; and strengthening the immune system. To improve or maintain a desired level of physical fitness, there is a need to constantly administer an adequate training intensity while exercising. Different training modalities are used for the development of different features of physical fitness, as each sportsperson requires a different types and levels of physical composure.

The concomitant integration of endurance and resistance training in a regular training plan is termed concurrent training.

In 1980, (Hickson, 1980) first provided evidence for the existence of an "interference phenomenon" between resistance and endurance training by demonstrating that strength gains were hindered when the two types of training were performed concurrently (concurrent training).

Since that time until now, the combination of resistance training (RT) and endurance training (ET) is frequently used in athletic.

This term is used to characterize the method whereby aerobic and strength training exercises are performed in the same training session (Bell, et al. 2000; Dantas, et al. 2008). That strategy was chosen because energy expenditure could be maximized both

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during and after the training through increased oxygen consumption after exercise 18. Some authors mention concurrent training in their publications (McCarthy, et al. 2002; Izquierdo, et al. 2005; Davis, et al. 2008).

The specificity of training principle states that the nature of tissue adaptation after training is dependent on the specific type of training practiced (Baechle, 1994; Brooks, 2000; Nieman, 2003).

As a corollary to this principle, combining two types of training (e.g., resistance and endurance training) may interfere with the training response induced by either type of training alone. Reasonable physiologic and metabolic evidence exists to support this principle.

However, Athletes are expecting to experience the benefits that these two different types of training have to offer. A number of studies have shown that performing these two types of training simultaneously can be detrimental to the gains that might be made in performing one type of training alone (Hickson, 1980; Dudley, Djamil, 1985; Craig, 1991; Bell, et al. 1997). In contrast, numerous studies have reported that there is no interference in performance gains with concurrent training when compared to resistance or endurance training alone (Sale, et al. 1990; Bell, et al. 1991; Abernethy, Quigley. 1993; Gravelle, Blessing. 2000).

Hence, the aim of this study was to determine the effect of effect of concurrent training on cd34+/cd45 stem cells, vo_2 max, certain physical variables and record level of 2000m rowing among younger's.

Method

Twenty five young male rowers divided into three experimental groups, concurrent (CG, n = 8), strength (SG, n = 8), and aerobic training group (EG, n = 9). Each group trained 3 times a week for 8 weeks, strength training, aerobic training, or both types of training in the same session.

Parameters assessed the high,weight ,power , strength , training age , vo_2 max (Astrand Treadmill Test was used to determine the vo_2 max) and Blood Sample were collected from an antecubital vein into vacuum tubes to measure the Cd34/Cd45 Stem Cells. All subjects were free of any disorders known to affect performance, such as bone fractures, osteoporosis, diabetes and cardiovascular disease. The participants did not report use of any anti-seizure drugs, alcohol and cortoon consumption, neither smoking cigarette. And all participants were fully informed about the aims of the study, and gave their voluntary consent before participation. The measurement procedures were in agreement with the ethical human experimentation.

Testing Procedures

Subjects were assessed before and after an 8-week training program Tests followed a general warm-up that consisted of running, calisthenics, and stretching

Astrand Treadmill Test(ATT)

To monitor the development of the athlete's general endurance (VO2max).

To undertake this test you will require:

- Treadmill
- Stopwatch
- Assistant

This test requires the athlete to run as long as possible on a treadmill whose slope increments at timed intervals

- The athlete warms up for 10 minutes
- The assistant sets up the treadmill with a speed of 8.05km/hr (5 mph) and an incline of 0%
- The assistant gives the command "GO", starts the stopwatch and the athlete commences the test
- The assistant, after 3 minutes into the test, adjusts the treadmill incline to 2.5% and then every 2 minutes thereafter increases the incline by 2.5%
- The assistant stops the stopwatch and records the time when the athlete is unable to continue
- From the total running time an estimate of the athlete's VO2max can be calculated as follows:
- VO2max mls/kg/min=(Time × 1.444) + 14.99

Where "Time" is the recorded test time expressed in minutes and fractions of a minute.

Static strength test (LS)(BS)

A back dynamometer was used to measure the static leg strength. The subjects stood on the dynamometer platform and crouched to the desired leg bend position, while strapped around the waist to the dynamometer. At a prescribed time they exerted a maximum force straight upward by extending their legs. They kept their backs straight, head erect and chest high. 3 trials were allowed to the subjects and the best score was taken. Subjects had a rest between the trials.

Standing Long Jump Test (SLJ):

The subject stands behind a line marked on the ground with feet slightly apart. A two foot take-off and landing is used, with swinging of the arms and bending of the knees to provide forward drive. The subject attempts to jump as far as possible, landing on both feet without falling backwards. Three attempts are allowed.

Seated Medicine Ball Throw (SMBT):

The subject stands with their back to a wall, on a mat facing the area to which the ball is to be thrown, and with the feet extended and slightly apart. The ball is held with the hands (two hands) on the side and slightly behind the center. The ball is brought to the chest, and then thrown vigorously out as far as possible. The back should remain in contact with the wall at all times. Three attempts are allowed. The

distance from the wall to where the ball lands are recorded. The measurement is recorded to the nearest 10 cm. The best result of three throws is used.

Push Up Test (PUT)

The push-up fitness test (also called the press up test) measures upper body strength and endurance. There are many variations of the test, such as different placement of the hands, how far to dip, the length of the test and the method of counting.

A standard push up begins with the hands and toes touching the floor, the body and legs in a straight line, feet slightly apart, the arms at shoulder width apart, extended and at a right angles to the body. Keeping the back and knees straight, the subject lowers the body to a predetermined point, to touch some other object, or until there is a 90-degree angle at the elbows, then returns back to the starting position with the arms extended. This action is repeated, and test continues until exhaustion, or until they can do no more in rhythm or have reached the target number of push-ups. Record the number of correctly completed push-ups.

Wall Sit Test (WST)

To measure the strength endurance of the lower body, particularly the quadriceps muscle group. equipment required: smooth wall and a stopwatch

Stand comfortably with feet approximately shoulder width apart, with your back against a smooth vertical wall. Slowly slide your back down the wall to assume a position with both your knees and hips at a 90° angle. The timing starts when one foot is lifted off the ground and is stopped when the subject cannot maintain the position and the foot are returned to the ground. After a period of rest, the other leg is tested.

The total time in seconds that the position was held for each leg is recorded

Blood Samples:

In the rest period, blood drawn by venipuncture and used the Flow cytometer for counting and examining microscopic particles, such as CD34/CD45

Statistical analysis

All statistical analyses were calculated by the SPSS statistical package. the results are reported as means and standard deviations (sd). Differences between three groups were reported as mean difference ±95% confidence intervals (meandiff ± 95%). One way ANOVA for samples was used to determine the differences in the parameters between the three groups. And Pearson correlations between all variables was used, the $p<0.05$ was considered as statistically significant.

Results:

Table 1. ANOVA for VO_2MAX, physical variables and Blood CD34/CD45 Count and Record level of 1500m run

CD34/CD45	Sum of Squares	Df.	Mean Square	F	Sig.
Between Groups	17.607	2	8.804	40.884	.000
Within Groups	4.737	22	.215		
Total	22.345	24			
VO_2 MAX					
Between Groups	14.184	2	7.092	29.343	.000
Within Groups	5.317	22	.242		
Total	19.502	24			
LS					
Between Groups	512.651	2	256.326	23.168	.000
Within Groups	243.402	22	11.064		
Total	756.053	24			
BS					
Between Groups	777.760	2	388.880	23.504	.000
Within Groups	364.000	22	16.545		
Total	1141.760	24			
SLJ					
Between Groups	1133.569	2	566.785	27.561	.000
Within Groups	452.431	22	20.565		
Total	1586.000	24			
SMBT					
Between Groups	2.094	2	1.047	6.349	.007
Within Groups	3.628	22	.165		
Total	5.722	24			
PUT					
Between Groups	110.463	2	55.231	11.901	.000
Within Groups	102.097	22	4.641		

Total	212.560	24			
WST					
Between Groups	743.403	2	371.701	22.932	.000
Within Groups	356.597	22	16.209		
Total	1100.000	24			
Record level 1500m					
Between Groups	.042	2	.021	9.462	.001
Within Groups	.049	22	.002		
Total	.090	24			

Table 1.show that significant differences between three groups in all variables except variable of SMBT

Table 2. LCD for VO_2MAX, physical variables and Blood CD34/CD45 Count and Record level of 1500m run

Dependent Variable	(I) GROUPS	(J) GROUPS	Mean Difference (I-J)	Sig.
CD34/CD45	**Strength group**	**endurance group**	**1.43917***	**.000**
		concurrent group	**-.51250***	**.038**
	endurance group	**concurrent group**	**-1.95167***	**.000**
vo_2max	**Strength group**	**endurance group**	**-1.817069***	**.000**
		concurrent group	**-1.154000***	**.000**
	endurance group	**concurrent group**	**.663069***	**.011**
LS	**Strength group**	**endurance group**	**9.051528***	**.000**
		concurrent group	**-.726250-**	**.667**
	endurance group	**concurrent group**	**-9.777778***	**.000**
BS	**Strength group**	**endurance group**	**12.500000***	**.000**
		concurrent group	**2.000000**	**.336**
	endurance group	**concurrent group**	**-10.500000***	**.000**
SLJ	**Strength group**	**endurance group**	**15.347222***	**.000**
		concurrent group	**3.125000**	**.182**
	endurance group	**concurrent group**	**-12.222222***	**.000**
PUT	**Strength group**	**endurance group**	**4.55556***	**.000**
		concurrent group	**.37500**	**.731**
	endurance group	**concurrent group**	**-4.18056***	**.001**
WST	**Strength group**	**endurance group**	**1.80556**	**.366**
		concurrent group	**-10.62500***	**.000**
	endurance group	**concurrent group**	**-12.43056***	**.000**
RL1500M	**Strength group**	**endurance group**	**-.01681-**	**.470**
		concurrent group	**.07750***	**.003**
	endurance group	**concurrent group**	**.09431***	**.000**

***. The mean difference is significant at the 0.05 level.**

Table 2.Show that.

- Significant differences in CD34/CD45 between Strength group and endurance group for Strength group.
- Significant differences in CD34/CD45 between Strength group and concurrent group for concurrent group.
- Significant differences in CD34/CD45 between endurance group and concurrent group for concurrent group.
- Significant differences in vo_2max between Strength group and endurance group for endurance group.
- Significant differences in vo_2max between Strength group and concurrent group for concurrent group.
- Significant differences in vo_2max between endurance group and concurrent group for endurance group.
- Significant differences in LS between Strength group and endurance group for Strength group.

- No significant differences in LS between Strength group and concurrent group .
- Significant differences in LS between endurance group and concurrent group for concurrent group.
- Significant differences in BS between Strength group and endurance group for Strength group.
- No significant differences in BS between Strength group and concurrent group .
- Significant differences in BS between endurance group and concurrent group for concurrent group.
- Significant differences in SLJ between Strength group and endurance group for Strength group.
- No significant differences in SLJ between Strength group and concurrent group .
- Significant differences in SLJ between endurance group and concurrent group for concurrent group.
- Significant differences in PUT between Strength group and endurance group for Strength group.
- No significant differences in PUT between Strength group and concurrent group .
- Significant differences in PUT between endurance group and concurrent group for concurrent group.
- No significant differences in WST between Strength group and endurance group.
- Significant differences in WST between Strength group and concurrent group for concurrent group.
- Significant differences in WST between endurance group and concurrent group for concurrent group.
- No significant differences in RL1500M between Strength group and endurance group.
- Significant differences in RL1500M between Strength group and concurrent group for concurrent group.
- Significant differences in RL1500M between endurance group and concurrent group for concurrent group.

Discussion

The purpose of this study was to determine if Concurrent training can enhance (vo2max) (LS), (BS), (SLJ), (SMBT), (WST) (PUT) (RL1500M) and CD34/CD45 among young rowers

The main findings from this study were the significant Improvements in the physical variables, Record level of 1500m run and counting of CD34/CD45 stem cells. This proved the concurrent training efficacy.

(Kraemer, et al. 1995) reported that concurrent training interfered with leg press and double leg extension strength development. This study also showed that only the resistance trained group improved in peak and mean power during the Wingate anaerobic test. (Bell, et al. 1997) reported interference in strength gains in the subjects of the concurrent group who were female, but not in the male subjects. Another study by (Bell, et al. 1991) found the resistance training group to make larger gains in knee extension one repetition maximum (1 RM), but not leg press 1 RM when compared to the concurrent group. A very recent study conducted by (Balabinis, et al. 2003) showed that the resistance training group made greater gains in leg press and bench press 1 RM compared to the concurrent group.

However, interestingly the concurrent group in this study showed greater improvements in many of the other performance tests conducted. It should also be noted that in all but one of the above studies changes in V02max were the same for the concurrent and endurance only groups.

Based on the findings of the studies discussed in the two previous paragraphs it seems rather convincing that endurance training interferes with strength development.

However, several studies have been conducted showing no interference in strength development by concurrent training (Hickson, 1980; Dudley, Djamil. 1985; Craig, 1991; Bell, et al. 1997). (Sale, et al. 1990) found no interference in strength or endurance development with concurrent training. This study actually showed that the concurrent group improved the most in the number of repetitions performed at 80% of leg press 1 RM. These results may have been due to the hybrid nature of the training program (endurance training = 3 minute bouts at 90-100% VO2max and resistance training = sets of 15-20 repetitions) used in this study.

(Abernethy, Quigley, 1993) performed a study solely examining concurrent training in elbow extensor muscles. Their study also showed no interference in strength development. Four other studies have also reported no difference in the strength gains of the concurrent and resistance training only groups.

(Balabinis, et al. 2003) actually found the concurrent group to improve more than the resistance training group in Wingate power. It is interesting to note that in this study the resistance only group out-performed the concurrent group in 1 RM leg press and bench press, but the concurrent group showed greater improvements in 1 RM squat, vertical jump, and Wingate power. As previously stated, (Crameri, et al. 2007) showed interference in vertical jump performance when comparing untrained subjects who concurrently trained to those who only resistance trained. However, they failed to show any interference when a group of trained rowers who began resistance training was compared to the untrained group who only resistance trained. A recent study conducted by (McCarthy, et al. 2002) also reported no strength impairments with concurrent training.

A small number of other studies have examined whether or not adding resistance training to the training regimen of endurance-trained athletes could improve their endurance performance. The results of these studies are also inconsistent. (Bishop, et al. 1999) showed that resistance training of endurance-trained cyclists did not improve their performance. In this study the resistance trained subjects did improve in the

strength test, but showed no difference from the control group in average power output during a 1-h cycle test, lactate threshold, or V02max. Nelson, et al. (1990) reported that after 11 weeks concurrent training actually interfered with gains in V02max as compared to endurance training alone. Here the authors speculated that as a result of hypertrophy a dilution in mitochondrial volume of the type IIa fibers might have occurred in the concurrent group.

(Häkkinen, et al. 2005) performed a study showing just the opposite of Nelson's findings. They found that subjects who had resistance trained showed greater improvements in short and long-term endurance compared to those who only endurance trained. Short-term endurance was 5-8 min to exhaustion and long term was maximal cycling time to exhaustion at 80% VO2max. It was hypothesized that resistance training increased short-term endurance performance by increasing high-energy phosphate and glycogen stores. Short-term endurance may have also been improved by increases in the fast twitch to slow twitch fiber area ratio. Long-term endurance performance was believed to have increased due to a delay in the recruitment of fast twitch fibers as a result of resistance training increasing maximum strength Nelson, et al. (1990). It has also been suggested that long-term endurance performance can benefit from resistance training not only by reducing large motor unit recruitment, but also by improving running or cycling economy. Similar to Hickson's findings (1980), (Balabinis, et al. 2003) recently reported that those who concurrently trained made greater gains in VO2max than those who only endurance trained.

Another important result of our study is the significant reduction in the CD34/CD45 stem cells secretions after the training program; these findings show the quality of the training program design.

Several mechanisms may contribute to increaseof CD34/CD45 stem cells followed 8- weeks of the training programs. Concerning the adaptations to strength and power training, (Ferrauti, et al. 2001) main factors are referred to in the literature: neural and hypertrophic. (Ransford, 1982) and resistance training is more likely to be associated with increases in fiber cross-sectional area.

A number of studies have shown that exercise improves the function and regeneration of the cardiovascular system and skeletal muscle by activating and mobilizing organ-resident stem cells (Crameri, et al. 2007; Petrella, et al. 2006) or by recruiting blood-circulating stem or progenitor cells (Adams, et al. 2004; Sandri, et al. 2005).

(Kadi, Thornell, 2000) suggest that physical exercise can exert powerful effects on different stem cell niches by altering their microenvironment. Currently, the mechanisms behind the maintenance of a quiescent state within each stem cell niche as well as the exact signals leading to the proliferation of stem cells following exercise are not fully understood.

Practical Applications

Two months of concurrent training program (endurance and resistance training) could improve physical and record level of 2000m rowing and stem cells among young rowers.

References

Abernethy, P., Quigley, B., 1993, Concurrent Strength and Endurance Training of the Elbow Extensors. J Strength and Conditioning Research 7: 234-240.

Adams, V., Lenk, K., Linke, A et al., 2004, Increase of circulating endothelial progenitor cells in patients with coronary artery disease after exercise-induced ischemia. ArteriosclerThrombVasc Biol. 24:684–90.

Baechle, T.R., 1994, Essentials of Strength Training and Conditioning. Champaign, IL: Human Kinetics, pp. 57–71, 137–166, 287–290, 314.

Balabinis, C., Psarakis, H., Charalampos, M. et al., 2003, Early Phase Changes by Concurrent Endurance and Strength Training. J Strength and Conditioning Research 17(2): 393-401.

Bell, G., Syrotuik, T., Socha, I. et al., 1997, Effects of Strength Training and Concurrent Strength and Endurance Training on Strength, Testosterone, and Cortisol. J Strength and Conditioning Research 11(1): 57-64.

Bell, G., Peterson, J., Wessel, K. et al., 1991, Physiological Adaptations to Concurrent Endurance Training and Low Velocity Resistance Training.Int J Sports Med 12(4): 384-390.

Bell, G., Syrotuik, D., Martin, T. et al., 2000, Effect of concurrent strength and endurance training on skeletal muscle properties and hormone concentrations in humans", European journal of applied physiology, vol. 81, no. 5, pp. 418-427.

Bishop, D., Jenkins, L. Mackinnon, M. et al., 1999, The Effects of Strength Training on Endurance Performance and Muscle Characteristics. Med Science in Sports Exercise 31: 886-891.

Brooks, G., 2000, Exercise Physiology: Human Bioenergetics and Its Applications. Mountain View, CA: Mayfield Publishing Company, pp. 401–419, 669.

Craig, B., Lucas, R., Pohlman, H. et al., 1991, The Effects of Running, Weightlifting and a Combination of Both on Growth Hormone Release. J Strength and Conditioning Research 5: 198-203.

Crameri, R., Aagaard, P., Qvortrup, K. et al., 2007, Myofibre damage in human skeletal muscle: effects of electrical stimulation versus voluntary contraction. J Physiol.583:365–80.

Dantas, E., Viana, M., Cader, S. et al., 2008, Effects of a programme for yearsenderers physical force on the muscle and body composition of adults. Sport Sci Health; 4: 15-19.

Davis, W.J., Wood, D.T., Andrews, R.G., et al. 2008, Concurrent training enhances athletes strength, muscle endurance, and other measures. J Strength Cond Res ; 22(5): 1487-1502.

Dudley, G., Djamil, R., 1985, Incompatibility of Endurance- and Strength-Training Modes of Exercise. J ApplPhysiol 59: 1446-1451.

Ferrauti, A., Neumann, G., Weber, K. et al., 2001, Urine catecholamine concentrations and psychophysical stress in elite tennis under practice and tournament conditions. J Sports Med Phys Fitness; 41:269–74.

Gravelle, B., Blessing, D., 2000, Physiological Adaptation in Women Concurrently Training for Strength and Endurance. J Strength and Conditioning Research 14: 5-13.

Häkkinen, A., Pakarinen, A., Hannonen, P. et al., 2005, Effects of prolonged combined strength and endurance training on physical fitness, body composition and serum hormones in women with rheumatoid arthritis and in healthy controls", Clinical and experimental rheumatology, vol. 23, no. 4, pp. 505-512.

Hickson, R., 1980, Interference of Strength Development by Simultaneously Training for Strength and Endurance. EurJ.ApplPhysiol, 255-263.

Izquierdo, M., Häkkinen, K., Ibáñez, J. et al., 2005, Effects of combined resistance and cardiovascular training on strength, power, muscle cross-sectional area, and endurance markers in middle-aged men. Eur J ApplPhysiol ; 94: 70-75.

Kadi, F., Thornell, L., 2000, Concomitant increases in myonuclear and satellite cell content in female trapezius muscle following strength training. Histochem. Cell Biol. 113:99 –103

Kraemer, W., Patton, S. Gordon, E. et al., 1995, Compatibility of high-intensity strength and endurance training on hormonal and skeletal muscle adaptations. J. Appl. Physiol. 78: 976–989.

Mccarthy, J.P., Pozniak, M., Agre, J., 2002, Neuromuscular adaptations to concurrent strength and endurance training. Med Sci Sports Exerc ; 34(3): 511-519.

Nelson, A., Arnall, S., Loy, L. et al., 1990, Consequences of Combining Strength and Endurance Training Regimens. Physical Therapy 70: 287-294.

Nieman, D., 2003, Exercise Testing and Prescription: A Health-Related Approach. New York: McGraw-Hill, 2003, pp. 79–110.

Petrella, J.K., Kim, J.S., Cross, J.M. et al., 2006, Efficacy of myonuclear addition may explain differential myofiber growth among resistance-trained young and older men and women. Am J Physiol. 291:E937–46.

Ransford, C., 1982, A role for amines in the antidepressant effect of exercise: a review. Med Sci Sport Exerc ;4:1–10.

Sale, D., MacDougall, I., Jacobs, and S. Garner. 1990, Interaction Between Concurrent Strength and Endurance Training. J ApplPhysiol 68: 260-270.

Sandri, M., Adams, V., Gielen, S. et al., 2005, Effects of exercise and ischemia on mobilization and functional activation of blood-derived progenitor cells in patients with ischemic syndromes: results of 3 randomized studies. Circulation. 111:3391–9.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 85-90
Original article

THE RELATIONSHIP BETWEEN MENTAL TOUGHNESS AND RESULTS OF THE EGYPTIAN FENCING TEAM AT THE 9TH ALL-AFRICA GAMES

HUSSIEN HAGAG[1], MAHROUSA ALI[1]

Abstract

Purpose. Although sports science is well recognized for the past 40 years, sport psychologyis still considered as a new field. Sportspsychology concerns with both psychologicalfactors that influence participationand performance in sport andexerciseaswell aspsychological effects derived fromthem. The aim of the study was to investigate the relationship between mental toughness and results of the egyptian fencing team at the 9th all-africa games.

Methods. Participants were members of the Egyptian Fencing federation who competed in the 9th All-Africa games held in Algiers, These athletes were competing in (3)weapons foil, epee, and saber events. The participants consisted of (22) fencers ,(12) male and (10) female fencers. All of them participated in team competition , (18) fencers only participated in the individual competition.

Results. The results were observed in the area of mental toughness when medallist and non medallists were analysed. The medallist displayed better self-confidence , better negative energy control and Visual - imagery control than the non medallist., the results suggested that the athletes with greater mental toughness were more likely to be selected into main team, to play in crucial competition , And Significant relationships between the Winning a medal and Self-confidence (. 58) , Visualization & Imagery(. 67) , Positive Energy Control (. 54)

*Conclusions.*The mental toughness practice will be improvement the performance levels and the competations results in fencing .

Key words: Mental Toughness, Fencing, The 9th All-Africa Games

Introduction

The Idea of an All-Africa Games were conceived as far back as 1920 by Pierre de Coubertin, the founder of the Modern Olympics. This ideal met with opposition from the colonial powers, wary of the unifying aspect of sport among African people. Their independence was denied.

Attempts to host the games in Algiers (1925) and Alexandria (1928) failed, despite considerable preparations taken by the coordinators. Donations from the IOC's (International Olympic Committee) first African member, Greek- Born Egyptian sprinter Angelo Bolanaki, made it possible to erect a stadium, but the games failed and were set back for three decades.

In July 1965 the first All Africa Games were held in Brazzaville, Congo. The Games were granted official recognition by the IOC as being on par with other continental Games. Some 2500 athletes from 30 independent African States attended the event. Egypt became the first ever country to win the All African Games.

The All-Africa Games, sometimes called the African Games or Pan African Games, are a regional multi-sport event held every four years, organized by the Association of National Olympic Committees of Africa (ANOCA). The competing nations must all be from the African continent.

The 9th All-Africa Games took place on July 11-23 2007 in Algiers, the capital city of Algeria. Algiers is the first city to hold All-Africa Games for a second time. The 1978 All-Africa Games were held there. Besides Algeria, only Nigeria has hosted the event twice, but with different host cities. The fencing game is one of 24 sports were completed .

Athletes have indicated that sports are physically as well as mentally demanding. The sport of fencing is no exception. Some of the greatest fencers have alluded to the mental demands that are placed on a fencer. Nadi , 1994 stated that a fencer's weapon is simply an extension of a fencer's brain. Furthermore, Csaba Elthes went as far as to compare fencing to the art of chess because of the great mental demands of the sport (Evangelista, 1995). Some athletes have stated that mental preparation is a vital part of training for competition and competition itself. Researchers have sought to determine the validity of these statements

Sport psychologists (researchers and practitioners), coaches, sports commentators, sports fans, and athletes acknowledge the importance of mental toughness in sporting performance (Goldberg, 1998; Hodge, 1994; Tunney, 1987; Williams, 1988). In early work on the issue, Loehr (1982, 1986) emphasized that athletes and coaches felt that at least fifty percent of success is due to psychological factors that reflect mental toughness. Similarly, Gould, et al. (1987) emphasized that coaches feel that mental toughness is important in achieving success, while

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Norris (1999) has emphasized the importance of mental toughness in developing champion athletes.

Mental toughness refers to a player's psychological skills that are advantageous to performance. Hodge, et al. (1999).

Mental toughness is often referred to in everyday conversations as an elusive quality possessed by only a few elite sportspeople. On the contrary, it is the view of people working in sport psychology that psychological skills can be taught.

Mental toughness is many things and rather difficult to explain. Its qualities are sacrifice and self-denial. Also, most importantly, it is combined with a perfectly disciplined will that refuses to give in. It's a state of mind-you could call it character in action. Vince Lombardi

Jones, et al. (2002) attempt a definition of mental toughness, that centres around being, determined resilience, staying in control and remaining focused in the face of pressure

Generally, cope better than your opponents with the many demands (competition, training, lifestyle) that sport places on a performer.

Specifically, be more consistent and better than your opponents in remaining determined, focused, confident, and in control under pressure.

While psychological skills they are often talked about, the psychological methods used to enhance these skills are not as well known. Often, players have developed some of these skills through experience and also through trial and error. Over time they tried different techniques and adapted those that worked and modified those that did not.

Practical sport psychology is about developing mental toughness by teaching and practicing proven methods with players and coaches. Sport psychology has several goals for teaching these mental skills, including enhancing performance and increasing enjoyment. Some of the more well-known methods for enhancing mental skills for sport include goal setting, self-talk and imagery. Elements of a mental toughness program can be as simple as developing a set routine of physical and mental preparation designed to get a player ready (physically and mentally) before a game and when returning to the field after halftime. This routine could involve going over key tasks as they will need to be performed on the field both in your mind Collins & Hale (2002).

Most coaches and athletes acknowledge that anything between forty and ninety percent of sporting success is due to mental factors (Williams, Krane, 2001). In fact, only mental readiness was seen as significant for Olympic success (Orlick, Partington, 1998).

The researcher observed that, Several studies have reported common perceptions by competitors such as loss of fear, total immersion in the activity, narrow focus of attention, effortless performance and being in control (Ravizza, 1997; Loehr, 1984; Garfield, Bennett, 1984).

And There has been a multitude of books written about the sport of fencing, but few touch on the mental side of the sport. Nadi, 1994 was one of the greatest fencers to participate in the sport. His book, On Fencing (Nadi, 1994), discussed the different physical aspects of fencing (i.e., attacks and parries), but did not discuss any specifics on mental training or techniques that could be used to enhance one's performance. The book was published in the middle of this century, when there was not a significant amount of information about the psychological aspects of sport. Although he did not state that mental training was necessary to compete in the sport, he did suggest that fencing is a mentally demanding sport. In one section of his book, Nadi, 1994 stated that: Above everything else, fencing develops mental agility. Indeed, it is one of the few human activities in which, most of the time, lightning conception and execution are simultaneous. The fencer's blade becomes the extension of his fingers..., but the often expressed thought that it is also an extension of the mind is clearly an understatement. Nadi emphatically implied that there is a great mental demand placed upon a fencer within a bout. According to A. Nadi, 1994, mental quickness is a must to compete in this sport It would appear that many people agree that mental quickness is required for an individual to succeed in fencing. Therefore, it is important that fencers learn psychological skills to possibly help build a mental edge in competition.

The purposes of this study were to determined the relationship between mental toughness and results of Egyptian team for fencing at The 9th All-Africa games in Algiers

Method

Participants

Participants were members of the Egyptian Fencing federation who competed in the 9th All-Africa games held in Algiers, These athletes were competing in (3)weapons foil, epee, and saber events. The participants consisted of (22) fencers ,(12) male and (10) female fencers.All of them participated in team competition , (18) fencers only participated in the individual competition. Table 1 contains classifications the sample.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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Table (1) classifications the sample (individual competition).

V.	Foil	Epee	Sabre	Total
M.	3	3	3	9
F.	3	3	3	9
T.	6	6	6	18

Materials

In 1986 J. Loehr developed the Psychological Performance Inventory Questionnaire with its seven distinct psychological sub concepts

Psychological Performance Inventory (PPI)

The PPI is a 42-item self-report instrument designed to measure factors that reflect mental toughness. All questions in the PPI were answered using a 6-point Likert type scale, ranging from '1' (False) to '6' (True). Six items subsume each of the following seven factors:

- Self-confidence (e.g., "I believe in myself as a player"): Positive cognitions, feelings and images about what one can do and achieve.
- Negative energy (e.g., "I get angry and frustrated during competition"): The ability to control negative emotions such as fear, anger, frustration and resentment.
- Attention control (e.g., "I can clear interfering emotions quickly and regain focus"): The ability to sustain a continuous focus on the task at hand. The ability to 'tune in' to what's important, and 'tune out' to what is not.
- Visual and imagery control (e.g., "Before the competition, I picture myself performing perfectly"): The ability to think in positive and supportive images and the ability to control the flow of mental images in a positive and constructive direction.
- Motivation level (e.g., "I am highly motivated to play my best"): The willingness to persevere with training schedules and to endure the pain, discomfort and self-sacrifice associated with forward progress.
- Positive energy (e.g., "I can keep strong positive emotion flowing during competition"): The ability to become energized through fun, joy, determination, positivity, and team spirit.
- Attitude control (e.g., "I am a positive thinker during competition"): Control over one's habits of thought reflecting the extent to which one's personal attitudes are consistent with those of successful high-level performances.

Research Procedures :

The researcher was translated and prepared (validity & reliability) to the Psychological Performance Inventory (PPI),after that the researcher distributed the questioner in the team camp (Olympic center) before traveling and participating in the All-Africa Games , in this period (25/6 even 2/7/2007) , the researcher was considered Winning a medal in the intervarsity competition for the purpose of this study and get the results from the Egyptian fencing federation , table (2) showed that :

Table (2) results of Egyptian players for fencing at The 9th All-Africa games in Algiers

Variables		foil	epee	saber	Total
M.	Gold	-	1	-	1
	Silver	1	1	-	2
	Bronze	1	-	2	3
	Loser	1	1	1	3
F.	Gold	-	1	-	1
	Silver	-	-	-	-
	Bronze	2	-	1	3
	Loser	1	2	2	6
T.	Gold	-	2	-	2
	Silver	1	1	-	2
	Bronze	3	-	3	6
	Loser	2	3	3	8

* This resultofindividual competition only not teams

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
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Data analysis

Data analysis used SPSS version 12.0.1. All data were examined for missing values and univariate outliers. Histogram, q-q plots, scatter plot and skewness were conducted as recommended by Tabachnick and Fidell (2001). One missing values and outliers were found, which reflected that the assumptions of normality, homoscedasticity and linearity were met. Descriptive statistics were computed for all measures assessed. Inter-correlations were computed among all measures. To evaluate the internal consistency of TEOSQ and PPI, Cronbach's alpha coefficients also were examined. Although, the sample size was a limitation (due to the fixed number of participants for the specific competition),. The variables were standardized using z-scores. The distribution of clustering variables was tested for normality and outliers. Chi-square ($\chi 2$) test was adopted toidentify whether any significant difference existed between the medallist and non-medallist for mental toughness factors .

Results

The results were observed in the area of mental toughness when medallist and non medallists were analysed. The medallist displayed better self-confidence , better negative energy control and Visual - imagery control than the non medallist., the results suggested that the athletes with greater mental toughness were more likely to be selected into main team, to play in crucial competition , And Significant relationships between the Winning a medal and Self-confidence (. 58) , Visualization & Imagery(. 67) , Positive Energy Control (. 54)

Table (3) Mean , SD and T test between Winning a medal andNon -Winning a medal fencer

Mental toughness (Fundamental areas)	Medallist		Non -medallist		T TEST
	M	SD	M	SD	
Self-confidence	21.25	3.39	17.11	2.56	Sign.
Negative Energy Control	19.96	1.17	18.00	2.77	No Sign.
Attention Control	19.00	1.54	18.11	3.03	No Sign.
Visualization and Imagery Control	20.75	3.31	16.22	2.72	Sign.
Motivation Level	22.25	3.60	19.11	2.85	No Sign.
Positive Energy Control	23.33	2.74	19.33	2.45	Sign.
Attitude Control	21.17	1.99	19.89	2.21	No Sign.
Overall Mental Toughness	145.67	11.63	132.22	10.10	Sign.

Table (3) Inter-correlations between the winning a medal and mental toughness .

	1	2	3	4	5	6	7	8
1. Winning a medal								
2. Self-confidence	.58 **	.05						
3. Negative Energy Control	.25	.60 **	.36 *					
4. Attention Control	.12	.28	.03	.31				
5. Visualization & Imagery	.67 **	.28	.40 *	.27	.47 **			
6. Motivation Level	.16	.27	.48 **	.41 **	.16	.63 **		
7. Positive Energy Control	.54 *	.05	.49 **	.20	.09	.56 **	.62 **	
8. Attitude Control	.36	.07		.46 **	-.09			.56 **

*p< 0.05; ** p< 0.01.

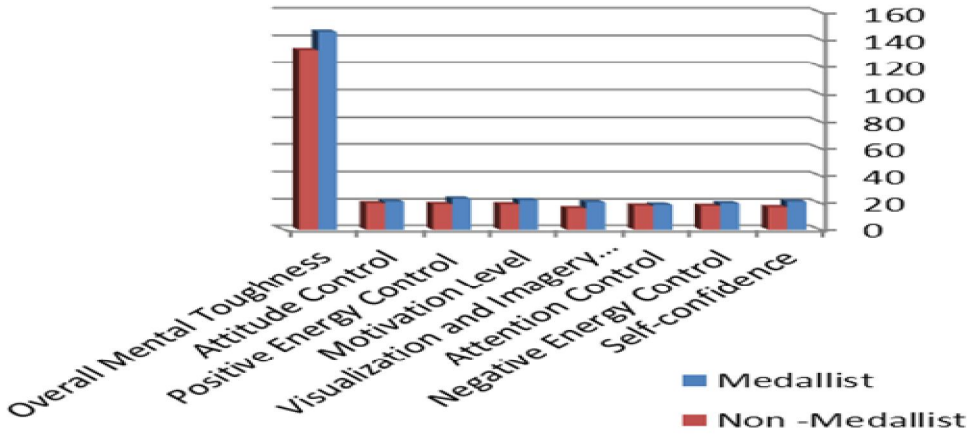

FIG 1 explain the defrencess between Winning a medal andNon -Winning a medal fencer

Discussion

Organised sports psychological skills training programs have been shown to be effective in enhancing performance (Cox, 1994). In fact, Rushall (1989) stated that sports psychology was the key to sporting excellence. Therefore, through the implementation of the Psychology Performance Inventory, which highlights the attributes and constructs most frequently employed by players, the information obtained would be specific to the unique psychological demands of fencing players. As well as the demands of the game in general, results may indicate unique psychological requirements for each specific position in rugby union. A greater understanding of the psychological needs and demands of players would offer coaches the opportunity to provide better support and advice to individual athletes. This ought, therefore, to enhance the players' overall development.

It should be noted that when assessing Mental Toughness using the Psychological Performance Inventory, two assumptions are made. Firstly, success of athletes is achieved by common qualities, not because of other characteristics (quantity of practice, physical suitability, social support, etc.). Second, those elite athletes performpsychological skills better than other sports participants (Murphy, Tammen, 1998).

According to (Bull, et al. 1996) There are also certain attributes that make some teams mentally tougher than other teams. Forexample, some teams have a high ability to work well together under pressure. Team work isoften referred to in sport psychology as the task cohesion of a group. There is also anotherdimension to cohesion - social cohesion - or, how well players get on together in socialsituations. Task cohesion, however, is often the primary concern of coaches as it relates moredirectly to on-field performance. There are several ways that coaches can build task cohesion .For example, doing tasks that require good communication and understanding among playerson the field is one way to help facilitate task cohesion. These team activities not only help theteam, they can also benefit an individual player's confidence and motivation.

Conclusions.It should also be highlighted that self-report psychological inventories have been criticized. Privette, (1983), suggested that test items are open to misinterpretation and that they were susceptible to social desirability response bias. Williams, (1988) questioned whether it was the thoughts of the participant or the researcher that were coming through in the responses produced by the inventories.

References

Bull, S.J., Albinson, J.G., Shambrook, C.J., 1996, 'The Mental Game Plan: GettingPsyched For Sport'. Eastbourne, U.K: SportsDynamics.

Collins, B., Hale, D., 2002, 'Rugby Tough'. Champaign, IL: Human Kinetics.

Cox, R.H., 1994, Personality and the athlete. Sport Psychology: Concepts and Applications (3rded., pp.18-51). Dubuque, IA: Brown & Bench.

Evangelista, N., 1995, The Encyclopedia of the Sword, greenwood press, USA.

Garfield, C.A., Bennett, H.Z., 1984, Peak performance: mental training techniques of the world's greatest athletes. Boston, Houghton: Mifflin.

Golby, J., Sheard, M., 2004, Mental toughness and hardiness at different levels of rugby league. Personality and Individual Differences, 37, (2004) 933-942.

Goldberg, A.S., 1998, Sports slump busting: 10 steps to mental toughness and peakperformance.Champaign, IL: Human Kinetics.

Gould, D., Hodge, K., Peterson, K. et al., 1987, Psychological foundations ofcoaching: Similarities and differences among

intercollegiate wrestling coaches. SportPsychologist, 1, 293-308.

Hodge, K., 1994, Mental toughness in sport: Lessons for life. The pursuit of personalexcellence. Journal of Physical Education New Zealand, 27, 12-16.

Hodge, K.P., Sleivert, G., Mckenzie, A., 1999, 'Thinking Rugby'. Auckland: ReedBooks.

Jones, G., Hanton, S., Connaughton, D., 2002, What is this thing called mental toughness? An investigation of elite sport performers. Journal of Applied Sport Psychology, 14, 205-218.

Loehr, J.E., 1982, Athletic excellence: Mental toughness training for sports. Denver, CO: Forum.Loehr, J. E. (1983). The ideal performance state. Science Periodical on Research and Technology in Sport. Ottawa: Coaching Association of Canada.

Loehr, J.E., 1984, How to overcome stress and play at your peak all the time. Tunis, March, 66-76.

Loehr, J.E., 1986, Mental toughness training for sports: achieving athletic excellence. Lexington, MA: Stephen Greene Press.

Murphy, S., Tammen, V., 1998, In the Search of Psychological Skills. In J.L.

Nadi , A., 1994, On Fencing , Laureate Press; 2nd edition, USA.

Norris, E.K., 1999, Epistemologies of champions: A discoursive analysis of champions 'retrospective attributions; Looking back and looking within. Michigan: Michigan UniversityMicrofilms International.

Orlick, T., Partington, J., 1998, Mental links to excellence. The Sports Psychologist, 2, 105-130.

Privette, G., 1983, Peak experiences, peak performance, and flow: a comparative analysis of positive human experiences. Journal of Personality and Social Psychology, 45, 1361-1368.

Ravizza, K., 1997, Peak experiences in sport. Journal of Humanistic Psychology, 17, 35-40.

Rushall, B.S., 1989, Sport psychology: The key to sporting excellence. International Journal of Sport Psychology, 20, 165-190.

Tunney, J., 1987, Thoughts on the line. Mental toughness: Biceps for the mind. SoccerJournal, 32, 49-50.

Weinberg, R.S., Gould, D., 1995, Foundations of Sport and Exercise Psychology. Champaign, IL: Human Kinetics.

Williams, J., Krane, V., 2001, Psychological characteristics of peak performance. In J. M. Williams (Ed.), Applied sport psychology: personal growth to peak performance (4th Ed., pp. 162-178). Mountain View, CA: Mayfield.

Williams, R.M., 1988, The U.S. open character test: Good strokes help. But the most individualistic of sports is ultimately a mental game. Psychology Today, 22, 60-62.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 91-96
Original article

BUILDING OF ELECTRONIC BOOK TO SOCCER BASICS FOR FIRST GRADE STUDENTS AT FACULTY OF PHYSICAL EDUCATION

IBRAHIM ELMETWALY[1], SAFOUT MABROUK[1]

Abstract

*Purpose.*The e-book one of the new technologies that imposed a new reality on the methods of teaching and learning as a result of the information revolution that we see in the present age which contains within it the electronic pages multi- called (text). The aim of this study was to building and designing of electronic booklet to soccer basics for first year students at the faculty of physical education.

*Methods.*The sample selected randomlyfrom faculties members in departments of curricula and teaching methods, technology education, as well as a number of supervisors of Physical Education province of Greater Cairo (15) from the faculties of Physical Education and Colleges of Education specialty libraries (Educational Technology), as well as five (5) of the formers of Physical Education in Greater Cairo governorate.

*Results.*The data revealed that the E- book contains all information's which the student needs it.

*Conclusions.*The positive design for substance basics of football to the first year students at the Faculty of Physical Education, University of Al-Azhar from the point of view of faculty members and mentors and students.

Keywords: E- book – Soccer, students.

Introduction

Witnessing the global community technology revolution and continuous information on the various activities of social and economic life , cultural, political and entertainment , and is the computer and the Internet one of the main tools of this revolution , so that learning it become the basic skills needed by the dominant members of the community in the various aspects of daily life, which requires individuals familiar knowledge and skills to deal with the computer and the Internet and became the rehabilitation of community members to deal with the computer and the Internet is a prerequisite indispensable, so deliberately educational systems in these communities to make good use of the computer and the Internet.

As a result of technological development has become the dissemination of information are in a completely different than previously and began the era of writing paper slips with the advent of computers and the Internet have emerged new forms of information sources and named electronic , in light of the transition to electronic form with increasing trend towards moving away from references traditional and trend toward electronic information sources the back of the so - called concept of e - book , which is characterized by many features that are unique to the traditional book .

Many organizations and institutions are using e-learning because it can be as effective as traditional training at a lower cost. (Wang, et al. 2004).

Developing e-learning is more expensive than preparing classroom materials and training
the trainers, especially if multimedia or highly interactive methods are used. However, delivery costs for e-learning (including costs of web servers and technical support) are considerably lower than those for classroom facilities, instructor time, participants' travel and job time lost to attend classroom sessions.

And spread e-books after the significant progress achieved in the field of printing and storing information electronically by computers, and after the emergence of the Internet has become buy e-books is remarkable in commerce sites on the World Wide Web , which range in size from a few hundred kilobytes to more than a hundred megabytes in some cases , it comes here factor multimedia files (audio , image, and video), to increase the provisions of the books directly proportional to the higher increase in it, and there are some bodies are used widely in the manufacture of electronic books for example, files, CHM, PDF is the species most used by publishing companies in the manufacture of electronic books (Banajee, 2007).

There is ongoing debate about whether it is the use of a particular delivery technology or the design of the instruction that improves learning (Clark, 2001; Kozma, 2001). It has long been recognized that specialized delivery technologies can provide efficient and timely access to learning materials; however, (Clark, 1983) has claimed that technologies are merely vehicles that deliver instruction, but do not influence of student achievement. As Clark notes, meta-analysis studies on media research have shown that students gain significant learning benefits when learning from audio-visual or computer media, as opposed to conventional instruction; however, the same studies suggest that the reason for those benefits is not the medium of instruction, but the instructional strategies

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built into the learning materials. Similarly, (Schramm, 1977) suggested that learning is influenced more by the content and instructional strategy in the learning materials than by the type oftechnology used to deliver instruction.

According to (Bonk, Reynolds, 1997) to promote higher order thinking on the Web, online learning must create challengingactivities that enable learners to link new information to old,acquire meaningful knowledge, and use their metacognitiveabilities; hence, it is the instructional strategy and not the technology that influences the quality of learning. (Kozma, 2001) arguesthat the particular attributes of the computer are needed to bringreal-life models and simulations to the learner; thus, the mediumdoes influence learning. However, it is not the computer per se thatmakes students learn, but the design of the real-life models andsimulations, and the students' interaction with those models andsimulations.

The computer is not just a way to receive information only It provides an interactive environment two-way in the sense that when it responds to the student or the receiver of the computer evaluate its response and will give specific information related thereto, it also provides feedback Feed Back instant each student individually, and the intention here is not only to strengthen responses but correct address student errors and correct them.

The computer of the innovations of modern educational technology as used in the world of explosive knowledge makes vector education to the so-called individual instruction and when used by the learner begin the process of learning where to choose the positions that suit them and the topics they wish to recognize and display speed he wants and responses believed to be suitable to them, and therefore all these activities constitute practical measures in the implementation of the processes of self-learning, individual learning , and multiple areas of computer use in the educational process , where it can be used as a target tutorial or as a tool or as an adjunct in the educational process , as it can provide tutorials Single directly to the learners , here's happening interaction between learners (individually) and educational programs offered by the computer .

E-Learning is planned learning that predominantly occurs in situations where a student is not required to be in a predetermined location. E-Learning courses require a different course design and development, different pedagogical techniques, and communication through instructional technologies.

E-Learning (eL) courses are delivered in many forms, including video conference, audio conference, correspondence, telecourses, satellite telecasts, courses available via the Internet, CD-ROM, and/or video/audio tape, etc.

A course may be delivered entirely via e-Learning, or by a hybrid of e-Learning and on-campus methods.

The e-book one of the new technologies that imposed a new reality on the methods of teaching and learning as a result of the information revolution that we see in the present age which contains within it the electronic pages multi- called (text), also includes some of the fees and still and moving images and has some of the voices and sound effects the so-called e-book it stores its contents on DVDs as it cannot be seen directly , but through it (CD-ROM) in your computer through the display or through the computer of each learner and this of course unlike the book normal which can be read directly without the intermediary , and the e-book includes texts impregnated characterized by move from a paragraph to another and from one page to another and from one chapter to another chapter by selecting a paragraph or a page or chapter by the mouse pointer (mouse) and then go directly to the specified location, has e-books appeared in the most developed countries education is available at public libraries and other civil there are also a variety of pages of these books in the Internet, which can benefit from them the average reader through the computer screen and get a hard copy or authenticated by computer(Morton, et al. 2007).

The sport of soccer team sports of interest to a lot of various people large and small , male and female , and this practice will be to learn , practice or training or investment leisure time activity benefit the individual in his public life and make it overcomes the problems they face in life.

The mastery of the basic skills of the most important factors in the team's success in the performance of his duties during the game, so must the coach and the teacher to take into account in the performance of his duties during the game, so shall the coach and teacher to take into account the accuracy, speed and control in performance by teaching skills in the scientific manner properly lead to the lifting the level of the students.

And calling for trends in education in modern soccer to the use of methods and means of technology is based on providing a range of lessons seen typical performance skills and tactical and cognitive achievement of the law followed lessons applied inside the stadium to be accompanied by discussions and observations involving the teacher with the learner in evaluating educational performance that is seen users so all offers of computers and teaching aids such as films and film tapes and audio recording devices , video and other tools of modern learning , which aims to raise the level of learners in all aspects of learning.

the researchers noted that there is a difficulty on the students band first Faculty of Physical Education while teaching the basics of soccer in the extent of their understanding of the stages of the technical steps and educational performance skills and related aspects of legal and tactical and technical in soccer , because there are many factors, such as lack of clarity in the

form ideal for performance art , as well as the lack of clarity steps educational skill in addition to the inability to follow up all learners during their performance of the skill learned to correct errors , and that the time for the lecture is not enough is not allowed to give some knowledge and information and focus on the legal aspects of soccer-related all of these reasons have contributed degree a large decline in the skill level of students educated , and then the researchers see the need to take advantage of educational technologies and the possibilities offered by modern technology to teach soccer skills to first year students at the Faculty of Physical Education , Al-Azhar University .

Basic skills in soccer, as both the study indicated (Haitham, 2008; Nadia, 2007) the extent to which the importance of the use and effectiveness of the e-book to learn some of the various motor skills , as well as cultural awareness and the development of knowledge and information related to the type of sport used.

Which prompted the researchers to conduct this study through the design and construction of a booklet mail can from which students learn well and saving time and effort for them as it is available to them at all times and thus make the learner is the focus of the educational process and the opportunity for him to be able to learn individually suitable for their abilities and potential and taking into account the principle of individual differences among learners.

Hence, the aim of this study was to building and designing of electronic booklet to soccer basics for first year students at the faculty of physical education.

Material and Methods

Subjects:

The sample selected randomly from faculties members in departments ofcurricula and teaching methods, technology education, as well as a number of supervisors of Physical Education province of Greater Cairo (15) from the faculties of Physical Education and Colleges of Education specialty libraries (Educational Technology), as well as five (5) of the formers of Physical Education in Greater Cairo governorate, the researchers took into account when selecting the research sample as follows:

(1) To be a specialist in the field.

(2) Must not be less years of experience (10) years.

(3) Be a member of the faculty at the university.

(4) To be directed from working in the field for now.

Data collection tools:

1 - Analysis of the decision rule basics of soccer for the first year students at the Faculty of Physical Education, University of Al - Azhar.

2 - Design (build) booklet - mail (scientific material processing - scenario - production code).

Scientific transactions of the form (Believe internal consistency - the form factor of stability Cronbach'salpha)

The researcher after adjustments made by experts apply the questionnaire on a sample from outside the study sample core strength (10) experts were selected randomly and for the legalization of statistical form under discussion, and the following tables illustrate coefficient of internal consistency for phrases each axis of the axes of the form as well as the reliability coefficient alpha Cronbach.

Design (construction) e - book for the soccer basics:

The researchers prepared the content and course material basics of soccer in its electronic form as follows:

The specific target outcomes of the course.

Understand and effectively apply the principles of Athlete Development

Demonstrate competency in planning an age-appropriate training session

Demonstrate the essential competencies to execute team training session that is focused on a technical function of the game

Understand concepts and recognize the principles of attacking and defending in a small-sided game environment

1 - Stage design and setup: It was at this stage to identify the scientific material, knowledge and information, as well as workouts with the skills assessed on student development through junk mail brochure.

2 - Scriptwritingstage: At this stage, the outline is compiled that have been developed previously to detailed procedures and educational events and the positions of real on paper .

3 - Implementation Phase : In this phase is performed scenario your book in the form of a booklet -mail, has been using the program the Flash for the implementation of the book and assemble multimedia elements that support the explanation of skills, has been using some other programs and to address the multimedia elements (text, audio , images, video) used book programs such as Photoshop and the program Sound Forge and the program of the Word, has been installed and arrange multimedia elements and to find the relationship between them to suit the nature of the book and activities , information and knowledge from which , as patron of the researchers choose the right colors to display the contents and the line clearly , design selection lists in an easy manner , as well as the design of the screens depending on their content in every part of the book.

4 - the stage of experimentation and development : After setting up a brochure mail in its final form was presented to a group of experts in the field of soccer and the field of curriculum and teaching methods , as well as educational technology and supervisors of Physical Education, has been agreed upon percentage ranged between (97.5 to 100%) , and the researchers after setting up and building electronic brochure

material basics of soccer submitting it to a group of first year students at the Faculty of Physical Education to identify weaknesses and deficiencies in the use of electronic brochure did not show any obstacles in students.

In the end, after a workout booklet -mail has become in its final form, has been put on CDs to take advantage of it.

Statistical Analysis

All statistical analyses were calculated by the SPSS.V.16 (Statistical Package for the Social Sciences). The results are reported as means and standard deviations (SD). Nonparametric Chi – Square test was used to analysis the variance results that were found statistically significant. Differences in means were considered if p, 0.05

Results

Table.1 The percentage of statistical and semantic own responses to the first axis phrases: knowledge, information and skills in the content of the decision basics of Soccer.

No.	Items	Yes		Maybe		No		Chi – Square	Agree rate
		Freq.	%	Freq.	%	Freq.	%		
1	The origins and evolution of soccer	20	100%	0	0%	0	0%	0	100%
2	Educational value relating to the exercise of soccer	20	100%	0	0%	0	0%	0	100%
3	Stages of preparation skill	19	95%	1	5%	0	0%	16.2	97.5%
4	Ways skill setting	20	100%	0	0%	0	0%	0	100%
5	Skill setup steps	20	100%	0	0%	0	0%	0	100%
6	Sports Planning in soccer	20	95%	1	5%	0	0%	16.2	97.5%
7	Organization and management in soccer	5	25%	14	70%	1	5%	13.3	60%
8	What the warm-up	20	100%	0	0%	0	0%	0	100%
9	Basic skills in soccer	20	100%	0	0%	0	0%	0	100%
10	Stages of learning the basic skills of soccer	20	100%	0	0%	0	0%	0	100%
11	Steps basic skills training in soccer	19	95%	1	5%	0	0%	16.2	97.5%
12	The relative importance of the elements of fitness in soccer	4	20%	14	70%	2	10%	12.4	55%
13	Ways basic skills training in soccer	20	100%	0	0%	0	0%	0	100%
14	Soccer law	20	100%	0	0%	0	0%	0	100%

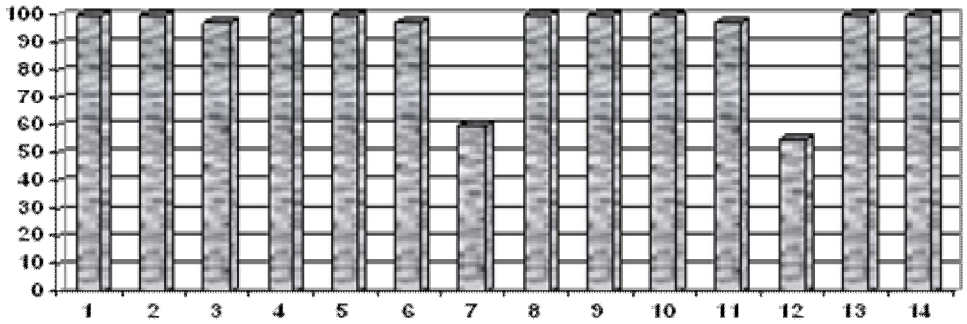

Fig.1 explains the percentage of statistical and semantic own responses to the first axis phrases: knowledge, information and skills in the content of the decision basics of Soccer.

Clear from the table (1) and Figure (1) and your repetitive and percentage and connotations statistical

Responses phrases first axis: knowledge, information and skills in the content of the decision of the basics of soccer and significant differences between the answers phrases (3, 6, 7, 11,and 12), where the square Kai ranged between (12.4 to 16.2), and these values are significant at the level of 0.05 in favor of responding (yes).

As evidenced no differences in the rest of phrases (1, 2, 4, 5, 8, 9, 10, 13, 14) in the directions (yes - to some extent - not) as the value of chi square (0.00) and these values indicate that the trend in these responses ferry was heading to one response, a response (yes).

The approval rate in the first axis: knowledge, information and skills in the content of the basics of

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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soccer decision in terms of (1, 2, 4, 5, 8, 9, 10, 13, 14) 100% fit for the direction of (yes).

The approval rate in the first axis: knowledge, information and skills in the content of the basics of soccer decision in phrases (3, 6, 11), 97.5 % in favor of the direction of (yes).

The approval rate in the first axis: knowledge, information and skills in the content of the decision the basics in terms of soccer (7) 60 % in favor of the direction of (yes).

The approval rate in the first axis: knowledge, information and skills in the content of the decision the basics in terms of soccer (12) 55 % in favor of the direction of (yes)

Table.2 The percentage of statistical and semantic own responses to the second axis statements: the design and content of E- book.

No.	Items	Yes		Maybe		No		Chi – Square	Agree rate
		Freq.	%	Freq.	%	Freq.	%		
1	Warm-up in football	20	100%	0	0%	0	0%	0	100%
2	Basic skills in football	20	100%	0	0%	0	0%	0	100%
3	Stages of learning the basic skills of soccer	20	100%	0	0%	0	0%	0	100%
4	Steps basic skills training in football	20	100%	0	0%	0	0%	0	100%
5	Ways basic skills training in football	20	100%	0	0%	0	0%	0	100%
6	Electronic brochure contains a range of still and moving images	20	100%	0	0%	0	0%	0	100%
7	Electronic brochure contains a set of videos and live scenes of the games	20	100%	0	0%	0	0%	0	100%

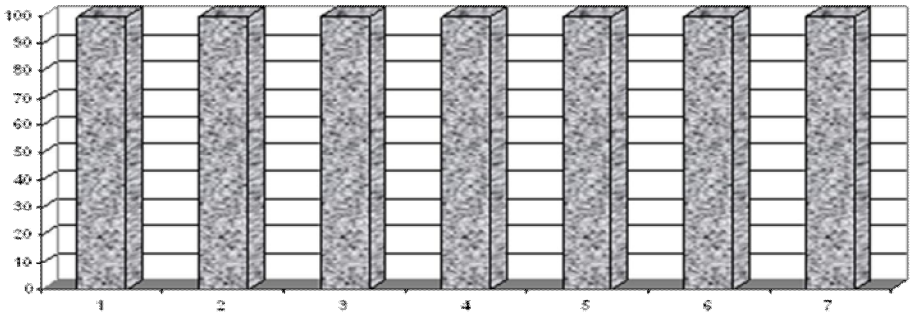

Fig.2 explains the percentage of statistical and semantic own responses to the second axis statements: the design and content of E- book.

Clear from the table (2) and Chart (2) and your repetitive and percentage and connotations statistical Responses phrases second axis: the design and content of the booklet address the lack of differences in all the phrases in the directions (yes - to some extent - not) reaching value of square Kai (0.00) and these values indicate that the trend in these responses ferry was heading to one response, a response (yes).

The approval rate in the second axis: the design and content of electronic brochure in all phrases 100% fit for the direction of (yes).

Discussion

The origins of the term e-Learning is not certain, although it issuggested that the term most likely originated during the 1980's,within the similar time frame of another delivery mode onlinelearning. While some authors explicitly define e-Learning, othersimply a specific definition or view of e-Learning in their article. Thesedefinitions materialize, some through conflicting views of otherdefinitions, and some just by simply comparing defining characteristics with other existing terms. In particular, (Ellis, 2004) disagrees with authors like (Nichols, 2003) who define e-Learning as strictlybeing accessible using technological tools that are web-based,web-distributed, or web-capable. The belief that e-Learning not onlycovers content and instructional methods delivered via CD-ROM, theInternet or an Intranet (Clark, 2001) but alsoincludes audio- and videotape, satellite broadcast and interactive TV isthe one held by (Ellis, 2004). Although technological characteristics areincluded in the definition of the term, (Tavangarian, et al. 2004) as well as (Triacca, et al .2004) felt that the technology being used was insufficientas a descriptor. (Tavangarian, et al. 2004) included the constructivisttheoretical model as a framework for their definition by stating that eLearning is not only procedural but also shows some transformationof an individual's experience into the individual's knowledge

throughthe knowledge construction process. Both (Ellis, 2004) and (Triacca, et al. 2004) believed that some level of interactivity needs to beincluded to make the definion truly applicable in describing thelearning experience, even though (Triacca, et al. 2004) added that eLearning was a type of online learning.

This is consistent with many of the studies on the extent and importance of the use of methods and means of modern technology, as well as the use of e-book to learn some basic skills to some of the various sports activities, and these studies, the study of (Hassan, 2007; Mustafa, 2002), where these studies emphasized the importance and effectiveness of the use of modern technological media in learning some

Conclusion

The positive design for substance basics of football to the first year students at the Faculty of Physical Education, University of Al-Azhar from the point of view of faculty members and mentors and students.

Recommendations.

- The need to use the mail within the booklet decisions of Physical Education.
- Holding training courses for the development of its faculty members on how to build and design a brochure mail.
- The need to design the entire curriculum in physical education colleges to publish it on the Internet to take advantage of them.
- Need to apply the e - brochure material basics of football on the first year students at the Faculty of Physical Education, University of Al-Azhar.

References

Adam, N., Wild, M., 2003, Applying CD-ROM Interactive Storybooks to Learning to Read, Journal of Computer Assisted Learning, Vol.13, issue2.

Banajee, M., 2007, Effect of Adapted Phonic Faces Story Books on Phonological Skills of Children with Severe Expressive Language Disorders, Ph. D., Electronic Thesis & Dissertation Collection.

Bonk, C., Reynolds, T., 1997, Learner-centered Web instruction for higher-order thinking, teamwork, and apprenticeship. In B. H. Khan (Ed.), Web-based instruction (pp. 167-178). Englewood Cliffs, NJ: Educational Technology Publications.

Clark, R., 2001, A summary of disagreements with the "mere vehicles" argument. In R. E. Clark (Ed.), Learning from media: Arguments, analysis, and evidence (pp. 125-136). Greenwich, CT: Information Age Publishing Inc.

Clark, R., 1983, Reconsidering research on learning from media.Review of Educational Research, 53(4), 445-459.

Ellis, R., 2004, Down with boring e-learning! Interview with e-learning guru Dr.Michael W. Allen.Learning circuits. Retrieved from.http://www.astd.org/LC/2004/0704_allen.htm

Haitham, A., 2008, Decision - mail a proposal for a peace Blinds , Faculty of Physical Education , Minia University in light of the quality standards , the research published in the International Conference on scientific research to develop new horizons, Tanta University.

Hassan, I., 2007, The effectiveness of the use of certain methods of educational technology to learn football skills to the students of the Faculty of Physical Education in Zagazig, Ph.D. thesis, Faculty of Physical Education in Zagazig.

Kozma, R., 2001, Counterpoint theory of "learning with media." In R. E. Clark (Ed.), Learning from media: Arguments, analysis, and evidence (pp. 137-178). Greenwich, CT: Information Age Publishing Inc.

Morton, D., Foreman, K., Goede, P., et al. 2007, TK3 E-Book Software to Author, Distribute, and Use ELECTRONIC Course Content for Medical Education, Advances in Physiology Education, Vol.31, No.1.

Mustafa, A., 2002, Multimedia system design and its impact on learning some football skills for beginners, Ph.D. thesis, Faculty of Physical Education, University of Minia.

Nadia, M., 2007, The effectiveness of education by using an e-book a photographer at the level of culture, sports and performance skills in handball for students in the first cycle of basic education , research published magazine theories and applications , Issue 63, Faculty of Physical Education for Boys , Alexandria University.

Nichols, M., 2003, A theory of eLearning. Educational Technology & Society, 6(2), 1−10

Schramm, W., 1977, Big media, little media. Beverly Hills, CA: Sage.

Tavangarian, D., Leypold, M.E., Nölting, K., et al. 2004, Is e-Learningthe solution for individual learning? Electronic Journal of e-Learning, 2(2),273−280.

Triacca, L., Bolchini, D., Botturi, L., et al. 2004, Mile: Systematic usabilityevaluation for e-Learning web applications. AACE Journal, 12(4).

Wang, C., Chen, G., 2004, Extending E-Books With Annotation, Online Support And Assessment Mechanisms to Increase Efficiency of Learning, ACM SIGCSE Bulletin, Vol.36, Issue 3, September.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 97-103
Original article

ATTITUDINAL BEHAVIOUR, VALUES, METHODS OF FORMATIVE EDUCATION TO STUDENTS

IONESCU CECILIA LILIANA[1]

Abstract

Objectives. Using efficient methods for achieving physical education and sport specific training (within context acronym PE), systematic activities with diversified performance according to the student's choices and awareness and knowledge of students about the intrinsic core values of PE that may lead to the formation of attitudinal behaviour in action.

Methods. Empirical research has spanned on a period of two years and included two sample populations, students and teachers of physical education. The research methods used were focus group, questionnaire of opinions and values, observation and processing methods and statistical analysis.

Results. Most surveyed students, 57 respectively, from which 2% were heavily and largely satisfied with the training methods used. Involvement of students in PE classes meet over 50% of the teachers surveyed, 64% of students consider that there are values in practicing the PE activities, manifested in everyday life.

Conclusions. Formative education methods used in the PE hour are appropriate for the choices expressed by students, the involvement level is more than satisfactory and exchange board of students is well positioned and relevant.

Keywords: formative education methods, values, physical education and sports activities

Introduction

Known phrase of physical education and sport, component and conditional-integrative element in university education, has as goal - excepting positive interventions (development, improvement, consolidation) on movement ability - growing, in the students a solid set of values and sustainable sets of social and personal behaviour and attitudes.

The characteristics of this stage, we set student life, are represented by the constant expression of the consciousness, with manifestations of identity and self. The challenges of the student' status involve major changes, with objective and subjective transformations, related to social and cognitive maturation, by recognizing the social, relational and professional dimensions.

The integration process of young people within the current social survey requires personal effort from the actors and students both intellectual and physical, and is manifested in various environments: family, group (membership, reference), professional, etc. The purpose of this process is the positive shaping of personality, by affirmation and expression of personal autonomy, taking responsibilities and roles etc. The students' expressed interest for the idea of physical exercise, performed under the most various forms, experiencing a continuous growth, as an option to a number of harmful behaviours that have an impact on quality of life and health of young people in general.

As is well known, the PE is considered to be primarily dependent on practicing physical activity. However, PE can be related to the formation of positive attitudes for movement, assimilation, development and promotion of values, of acquiring ethical values, social, moral, sports, etc., leading ultimately to manifest among those who practice these types of activities, of an appropriate behaviour of today's society requirements.

According to the already asserted I carried out a scientific research from which I present an offcut from the perspective of formative education methods and the promotion of values for the understanding of ethical behaviour manifestations of students.

In the practice of PE discipline an important factor is the methods with formative valences. They come in a positive relationship, relative to what is practiced in teaching methodology of other sciences with their specificity. Characteristic to PE domain is that the following training methods are used (Cârstea, 2000): verbal methods, intuitive methods and practical methods.

Sociology and psychology professionals consider attitudinal behaviour as an outcome of the decisions we make based on the attitudes manifested, "results especially of education and social influences" (Epuran et al., 2001).

The assimilation and promotion of values process through the practice of PE activities can and should contribute decisively to the changing of our mentality. This change, which converges to emphasize moral, social, sportive, values etc. of our actions is subordinated to our intention to take into account and to observe norms of conduct, rules, regulations, laws

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defining ultimately positive attitude behaviour.

Methods

Scientific research was conducted over a period of two years and included two sample populations: 219 students (95 women and 129 men) from three institutions of higher education non profile and 80 teachers from eight institutions of higher education. Hypothesis was defined by the following statement: if we use training and learning methods in a wide range, corresponding to goal objectives, then the chances that behavioural manifestations of future graduates to be positive and accompanied by a table of values consistent with the requirements of our society grow.

The objective I have set to achieve, corresponding to the variable formative education method was the use of effective methods for achieving specific training objectives of PE – systematic PE activities with varied performance depending on the student's options.

Research methods that I have investigated this issue were: observation, focus - group and the opinion questionnaire (item 1). By using these methods we intend to know what is the degree of utility of teaching methods used/degree of satisfaction of students and teachers' opinions regarding how the attitude of students is influenced through their appropriate involvement in PE classes.

The observation method revealed aspects on the involvement of students during PE activities, how they respond to assigned duties, how they are involved and how these tasks are performed. All data were monitored in an observation protocol using a scale range 3,5,7, where were recorded the place of performance, verbal behaviour, reflexive behaviour (motivation), attitude toward performed activities, attention, degree of relating with colleagues.

Through the focus - group method we decided to carry out an interview of a group of students on teaching-learning methods used within the classes of PE and set as objective the knowledge of student opinions about teaching-learning methods used in classes EFS for specific training objectives EFS, or not carrying out diverse activities and options depending on the student. The questions were:

1. What features should have methods that teachers use them in times of PE? Please explain your answers
2. Under what conditions would you like to make practicing physical exercises? Explain it.
3. Your participation in PE classes might improve if teachers would include other favourite activities?
4. Of the methods listed you would like them to be applied according to gender or age?
5. Do you consider that learning / training methods are effective?
6. For a better efficiency of the methods used in the practice of PE, according to technical and tactical training that you have, can you involve in your teaching process? What methods would you use? Explain it.

I elaborated and applied a questionnaire of opinions, values and attitudes for students made up of 15 questions, while the questionnaire for teachers consisted in 14 questions. The internal consistency of the questionnaire was calculated by calculating Cronbach-Alpha coefficient for items of both questionnaires. Internal consistency represents the property of items to correlate with overall test score or scale that is part of. Because items must reflect a certain attribute, they must correlate with each other (6).

I also carried out the pre-testing of the questionnaire on 20 students and 16 teachers to determine the reliability test. I used the internal consistency method and were taken into consideration the number of items and average of intercorrelations between the items of the test. Adequate to our questionnaire I used Alpha coefficient EJ Cronbach. The obtained result was greater than 0.70, a value considered to be admitted to the fidelity of a questionnaire, which is why I continued the investigation of two sampled populations, using the proposed questionnaire.

In the survey of opinions, the students answered to item 12 and teachers to item 4. The requirement of the item for students was as follows: I.12. To what extent are you satisfied with by methods of training (verbal through explanation, intuitive through demonstration and practical through practice) used by teachers during PE classes. Mark your answer. I used a scale of answers from 5 (heavily) to 1 (very little at all).

The statement of the item for teachers was as follows: I.4. What is your opinion towards the following statement: "Involving students in PE activities is nowadays satisfactory?" I also used a scale from 5 (total agreement) to 1 (very poor agreement).

Regarding the investigation of the variable defined by attitudinal behaviour, I used the questionnaire of opinions and values, item 9, through which I intended to know the opinions of the students regarding the essential intrinsic values of PE, values assimilated and promoted through the practice of PE activities. The indicator for the measurement of attitude behaviour was the set of the consistency of table of values, through the options expressed by the surveyed students, further to the performance of specific activities, constantly and organized within PE classes.

Students had the task to evaluate on a scale from 5 (very important) to 1 (not important) from a list of values those they considered to be important for the following items: mark X your choice corresponding to each variant of answer to the following question: "How important do you consider the following values for the formation of positive sets for your attitudes-behaviour, effects of PE activities practicing?"

The list included the following value indicators: respect the values that the partners and competitors have, rapid and harmonious thinking, responsibility, empathy (the ability to express understanding and care to another's feelings), group spirit, group solidarity towards real difficulties, capacity for cooperation, sportive integration and socialization, wish of assertion, competitiveness, need for systematic physical movement, positive attitude towards the practice of physical exercise, fair play, indiscriminate behaviour (gender, race, religion), modesty, honesty towards social norms, will, recognition and rejection of risk behaviours, availability to reasonable / balanced effort, courage in making decisions involving risk-taking, the rules / regulations, adaptability, ability to take initiative, quick orientation in task, domestic nonviolence on field, streets, stand), proper conduct rules of the community, conduct with zero tolerance (alcohol, smoking, drugs).

Results

Regarding the organized focus-group, to avoid doubtfulness related to the subject that was to debate, I explained the present students which are the methods used in PE teaching-learning class, as well as basic specific means / tools, represented mainly by the exercise, which is performed in PE class. I also identified through example, which are the methods used, starting from some movement acts and actions of basketball game.

The conclusions of this research are the following: the degree of satisfaction of students towards activities that took place at PE lessons is satisfactory, highlighting the importance of learning methods/training. Thus, pro arguments were brought for each separate method used.

It was discussed the importance that explanation through clarity and logic of describing a physical exercise has, to correctly understand the technical or tactical requirements of that habit. Regarding the demonstration, it has as a result the clear forming of a representation that has to be carried out. From experience of PE classes, the majority of those present said that the demonstration accompanied by explanations results in increased efficiency of this method. Other students have said that it is sufficient only the demonstration, because the respondents rely on their technical and tactical knowledge accumulated from previous years. Regarding the practice, this is important too, because through conscious repetition the students manage to achieve complete satisfaction from the completion of execution of movement act / action, which belongs them exclusively. The opinion of those present was that the diversity of physical exercises used corresponds with what they want, emphasizing at the same time the satisfaction towards the training methods used in PE classes.

At the question about the conditions under which they would like to carry out the practice, everyone present considered they prefer more practice of skills / movement structures under conditions of bilateral game, to acquire for more good, fair and pleasant under conditions of adversity. They felt that practicing isolated skills helps them to their good learning from technical point of view, but the preference for competitive practice is clear, especially when you have to practice a specific tactical action of a sport game.

I noted with satisfaction that at least the students present to discussions, they considered that their participation in PE classes does not always depend on their preference for a particular PE activity but just to be present and perform activities that works them out physically to reduce any mental load which accumulates daily. Finally, students were satisfied with their participation in PE, with the specific activities that they practice and suggested me to ask more often their opinion about the activities they wish to perform at a certain time within PE classes.

Most of those present recognized the effectiveness of the learning / training methods, considering that, similar to other disciplines, if you want to enrich your movement, technical knowledge background, in this situation there must be performed all these methods, to see the final result which coincides, in fact, with more accurate and closer to the model.

Among those present, less than half considered that there could be a more efficient method used if they involve in the training process, by shortening the time spent not so much for explanation and description, but for demonstration and correction. For example, if of a group of 20 students present in PE class, the time for learning and acquiring a technical procedure, let's consider from basketball, would fall by participation of the above mentioned students along with the teacher, and would solve faster the class task. Each of those involved in the training might be responsible for the teaching of four other students. The fact that they have a sport experience explains their willingness to involve. Of the preferred methods, the opinions of the respondents revolved around a single method, namely the practical method.

The observation method gave us data that showed that the students present in PE activity responded adequately to the tasks received, by accurate performances, involving as possible in their preparation resources. Relationships with colleagues were satisfactory and generally, the involvement of investigated students increased to a level that satisfied us. In Table 1 I presented the results of centralized students' opinions regarding the teaching-learning methods that PE teachers apply to achieve goals.

Table 1. The extent to which students are satisfied with formative education methods used in PE classes

Scale	Variants of response	Frequency	Percentage	RANK
5	To a very large extent	48	22%	II
4	To a great extent	75	34%	I
3	Equally	59	27%	III
2	To a small extent	28	13%	IV
1	To a very small extent	9	4%	V
	TOTAL	219	100%	

Table 1 reveals data on the total of 219 respondents, a percentage of 56%, or 123 students declared themselves satisfied "to a very large extend" and "to a great extent" of the learning / training methods used by the teachers. The lower ranges of the scale there are 28 students, 13% respectively who are "to a small extent" satisfied, while only 9 of the students, 4% respectively are considered satisfied. We also noted that on the average level there were the options of 59 students, of all those interviewed. Completing our analysis highlights the seriousness of those involved and the lack of non-responses.

Centralization of responses obtained from PE teachers to item 4 is in Table 2, where are recorded the frequencies obtained for the involvement of students in PE activities. I determined the rank held by each expressed option, appropriately to steps 5, 4, 3, 2 and 1.

Table 2. Opinions of teachers on student involvement in PE activities

Scale	Possible answers	Frequency	Percentage	Rank
5	Totally agree	15	19%	II
4	High agreement	40	50%	I
3	Relative agreement	15	19%	II
2	Minimum agreement	10	12%	III
1	Very poor agreement	0	0%	
	Total	80	100%	

Data recorded in the table 2 reveal the level of involvement of students in PE class, through the satisfaction expressed by teachers, 50% being on level 4 of our scale, obtaining, in fact, I rank. Second rank was achieved by the options of very satisfied teachers and those equally satisfied by the level of involvement of students present in the PE classes. Following our analysis, we note satisfactory opinions expressed by respondents regarding the extent of student involvement in specific PE classes.

About the scaling of shown values, I must notice that respondents had to assess, on a scale from 5 to 1, a list of 27 values, whose opinions are listed in the following table.

Table 3. Students' options for values that define the attitude behaviour, effects of PE activities practicing

	Values	Scale 5	4	3	2	1
1	Observing the values that the partners and competitors have	80	63	51	14	11
2	Thinking fast, but smooth	83	71	30	20	15
3	responsibility	69	54	39	35	22
4	Empathy (ability to show understanding and care to another's feelings)	83	48	37	29	22
5	Group spirit	84	48	39	26	22
6	Group solidarity towards real difficulties	73	64	38	36	8
7	Ability to cooperate	65	62	53	27	12
8	Integration and sportive socialization	86	59	35	24	15
9	Desire to assert	93	52	43	20	11

10	competitiveness	76	60	39	27	17
11	Need for physical systematic movement	**96**	54	36	16	17
12	Positive attitude to physical exercise practicing	**99**	43	46	10	21
13	Fair play	**100**	60	30	19	10
14	Non-discriminative conduct of gender, race, religion	88	52	42	20	17
15	modesty	81	48	42	32	16
16	Fairness to social norms	79	54	45	25	16
17	Will, firmness, tenacity	83	73	43	18	2
18	Recognition and not acceptance of risk behaviours	84	50	43	23	19
19	Availability to rational, balanced exercise	84	68	38	20	9
20	Courage in taking decisions involving risk-taking	48	53	68	36	14
21	Observation of rules, regulations	71	63	47	24	14
22	Ability to adapt	68	57	57	26	11
23	Ability to take initiative	87	55	45	19	13
24	Quick orientation within task	62	55	55	31	16
25	Nonviolence domestic on field, streets, stand	85	55	52	15	12
26	Conduct according to community rules	**97**	69	29	12	12
27	Conduct with zero tolerance for alcohol, smoking, drug	93	74	41	7	4
28	Other (specify)	0	0	0	0	0
	TOTAL OPTIONS	**2197**	**1564**	1163	611	378
	PERCENTAGE	**37%**	**27%**	20%	10%	6%

To identify the content of value table of participating students in our scientific approach, we analyze the scaled values on the upper ranges of the indicate as important the values which mainly contribute to the manifestation of an attitude behaviour with values. From the perspective of single analysis of defined values, we must notice with such satisfaction that on the first five places of level 5 there were four values which focus in the field related to movement, body development, leisure, lifestyle: „fair play" with 100 options, "positive attitude towards physical exercise practicing" with a frequency of 99 nominations and 96 for the „need for physical movement". 97 options were compiled by „relevant conduct rules of the community". On the interval 4, students indicated the following frequencies for values defined by indicators: 74 for „conduct with zero tolerance for alcohol, tobacco, drugs", 73 for „will, boldness, tenacity", 71 for „quick thinking, but harmonious".

Analysis undertaken in terms of sets of values, outlines the idea that students expressed options for defining the attitude behavior by positioning of 64% of maximum levels expressed options. Thus, we have identified and determined the contents table of values which is represented by character value (volitional, attitudes, moral motivation), values focused on social/institutions, values focused on self-personality, scale, 5 and 4 respectively. Thus, we see the cumulative percentage for the two levels of 64%, which shows that the most students recognize an values related to movement (body development, leisure, lifestyle), cognitive values, values related to creative ability and emotional-affective values.

Statistical analysis was performed using softwares:
i) the Software EXCEL version 2007, Microsoft's,
ii) systematizing, ordering correctness results with product information tools described above, was used SPSS software version 17, specialized for statistical processing. This product is intended for processing the statistical data characterizing the main entities of a phenomenon subject to statistical analysis (Popa, 2008). Statistical indicators used were the arithmetic average, median, mode, standard deviation, Kurtosis and Skewness indicators. Arithmetic average, median and mode are statistical indicators for determining the central tendency of a string.

The standard deviation is an indicator showing the variation or scatter. Skewness and Kurtosis indicators are indicators of symmetry and vaulting of distribution series (6).

Table 4 presents the values obtained for statistical indicators used for items 9 and 12 from the questionnaire for students and item 4 from the questionnaire for teachers.

Table 4. Statistical indicators for items 9, 12, 4

Indicators / Items	Arithmetical Mean $\overline{x}$	Median Me	Module Mo	Standard deviation S	Skewness indicator	Kurtosis indicator
Students item 9	3,77	4	5	1,231	-,731	-,455
Students item 12	3,57	4	4	1,091	- ,450	- ,450
Teachers item 4	3,75	4	4	,907	-,522	,388

From the data presented, we see that for all presented items the arithmetic mean value is lower than the median, indicating a negative asymmetry resulting in lower values, that is negative Skegness indicator. Half of responses are achieved between ranges 4 and 5 and median has the value 4, indicating for item 9 a concentration of values listed in higher ranges. Mode with value 5 shows that the highest frequency responses are on the maximum interval 5, revealing that most options have focused on maximum range. The value 4 of the mode for items 12 and 4 indicates a majority concentration of options expressed on higher range 4.

Standard deviation values indicates a dispersal of data on greater intervals around the average for items 2 and 12 from the questionnaire for students. Negative value of the indicator shows a platykurtic distribution, showing dispersed values on a higher range around the average.

Regarding item 4, we observe that the low standard deviation shows that the values are slightly spaced from the average and in conjunction with arithmetic mean value indicates a homogeneous sample. The positive kurtosis indicator for item 1, indicating a high data distribution, leptokurtic, reinforcing the idea that values are distributed around the average.

Discuss

At the end of our study I can present some conclusions. Following the discussions held with the students in the focus group organized and the results obtained in item 12, we can say that the degree of satisfaction of students reported to the analyzed problem is high, the methods of instruction used in the PE classes are appropriate to the choices expressed, match up to their desires, needs and expectations. We also note the highly favorable opinions expressed by teachers on students' involvement in PE lesson; the students responded in an appropriate manner to the tasks received by the correct execution, each engaging according to their potential movement that he owns.

Regarding the students' choices expressed by evaluating a list of submitted values, we identified constitutive elements of the table of values which is represented by character values (volitional, attitudes, moral, motivation), values focused on social /institutions, self-focused on personality values, values related to movement (body development, leisure, lifestyle), cognitive values, values related to creative ability and emotional-affective values.

To this conclusion is attached the acknowledgement of these values as expression of manifestation of attitude behaviour, by the majority of respondents and awareness that these values are developed in this kind of PE specific activities. The assessment of these indicators on higher scales values shows the reality, confirming the premise from which we started. High frequencies obtained on maximum steps as well as the focus on these values by expressing the students' options for these requires us to say that the value set of most respondents is well defined, relevant for attitude behaviour accompanied by values, finally causing the formation of harmonious developed people physically and especially mentally.

The hypothesis defined at the beginning of our study, namely: if we use training and learning methods in a wide range, corresponding to objectives, then the chances of behavioural manifestations of future graduates grow to be positive and accompanied by a table of values consistent with the requirements of our society.

Regarding other research or analysis having the same subject matter we notice, that from the view of PE field, defined one hundred percent by the fieldwork, we have to admit that the preoccupation with the problematic relative to promoting values, attitudes, conduct are less imaged.

In major international literature it appears to be a larger opening towards the prominence and comprehension of the importance for practicing physical education activities to promote and assimilate values, in order to know the benefits of these activities, to make some attitude sets agreeable to participating in all motion activity, for describing with objectivity and realism of the phenomenon -sport.

Returning to foreign literature we bring up the American author Richard Giulianoti, who brought

toghether in Sport and modern social theorists (2006) the dislplays of some famous American writers such as Alan G.Ingham, David Inglis, David Rowe, William J. Morgan. These authors tell what sport means as a phenomenon, the valences of practicing it, the nature and the values that PE promotes, the risks on which those who don;t understand good the sport-body relation submit to, out of the will to look as better sometimes overstraining themselves physically.

Peter Craig from Great Britain in Sport Sociology (2008) with Gordon T. Mellor, Paul Beedie, Ping Wu and Amanda Jones give the readers a full image of the sport in this country. The authors mentioned give, from a sociological view, the analysing and comprehension of sport, in the context in which the world is submitted to some repeated and fast changes, making an introduction in sociological theories from modern society; there are imaged the master structures for promoting sport; there are displyed the strucure and functional theories of sport and how PE connects with the socialization process.

The American authors Richard Bailey and David Kirk in The Routledge Physical Education Reader came out in 2009, brings toghether many articles, having specific subjects to PE, of some American writers such as Mike McNamee, Daryl Siedentop, Amelia M. Lee, Jo Harris. This article selection gives as the chance to know the nature and PE values, the existence of the relation between the PE and health, the way of teaching and learning in PE, which is the social making of sport.

We conclude that by the conducted investigation, we were able to create and stimulate the expression of positive attitudes, favorable to practicing physical activities of any kind. We believe that the current of opinion favorable to PE activities practicing will occur also after the completion of studies, in the most diverse situations. At the same time, our study has outlined the idea that students admit that through active participation in PE activities, social moral, sportive values are promoted and assimilated.

References

Cârstea, G. 2000,Teoria şi metodica educaţiei fizice şi sportului. Bucureşti: AN-DA.,52

Chelcea, S. 2007,Metodologia cercetării sociologice. Metode cantitative şi calitative. Bucureşti: Economică.

Epuran Mihai, Holdevici Irina, Toniţa Florentina, Psihologia sportului de performanţă.Teorie si practică. Bucuresti, Editura FEST, 2001, 52

Giulianoti, R. 2006. Sport and Modern Social Theorists. New Zork: Plgrave Macmillan

http://statisticasociala.tripod.com/parametri.htm. (Preluat pe 10 noiembrie 2010)

Ionescu, C., L. Conduită motrică, valori si atitudini. Pitesti: Tiparg. 2012

Peter, C., & Beedie, P. 2008. Sport Sociology. Southernhay East: Leraning Matters Ltd.

Popa, M. 2008,Statistica pentru psihologie. Teorie si aplicatii SPSS. Iaşi: Polirom.

Popescu Neveanu, P. Dicţionar de Psihologie. Bucureşti: Albatros. 1978

Richard Bailey, D. K. 2009. The Routledge Physical Education Reader. New York: Routledge.

Rokeach, M. (1973). The Nature Of Human Values. New York, The Free Press, London, Collier Macmillan Publisher.

Rotariu, T., Bădescu, G., Culic, I., Mezei, E., & Mureşan, C. 2006. Metode statistice aplicate în ştiinţele sociale. Iaşi: Polirom.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 104-109
Original article

EFFECT OF FUNCTIONAL STRENGTH TRAINING ON CERTAIN PHYSICAL AND PHYSIOLOGICAL VARIABLES AMONG YOUNG FEMALE HANDBALL PLAYERS

LAMIAA LABIB[1]

Abstract

Purpose: functional strength training involves performance work against resistance in such a manner that the improvements in strength directly enhance The performance of movements so the an individual's activities of daily living are easier to perform simply stated, the primary goal of functional training is to transfer improvements in strength achieved in one movement to enhance the performance of other movements by affecting the entire neuromuscular system. The aim of this study was to investigate that Effect of functional strength training on oxidative stress and certain physical variables for young Handball players.

Methods. Twenty young handball female players, divided into (2) group. The experimental group (n = 10 female players) performance functional strength training and control group (n = 10 female players) performed traditional exercise. Blood and urine samples were collected before and after (10) weeks. Serum uric acid (UA), creatine phosphokinase and urinary malondialdehyde (MDA) were evaluated. As markers of oxidative damage to lipids and proteins, statistical analysis of the results was carried out with the use of SPSS software.

Results; the experimental group had significantly higher than the control group in Serum uric acid (UA), and creatine phosphokinase and urinary malondialdehyde (MDA), and the experimental group had significantly higher than the control group on a core stability test, balance . In addition, No significant difference was found between the experimental group and the control group in power and strength.

Conclusion: under the condition of our study, functional strength intervention for twelve weeks has a beneficial effect on oxidative stress and core stability test, balance of Handball players.

Key words. Functional Training, Handball players, Strength. Balance

Introduction

The goal of exercise programs is to provide the body with an adaptation. An adaptation is an enhancement of bodily movements, resulting in aesthetic or athletic improvements.

The movement theory mimics daily and sporting actions and helps the body improve these activities, which is an adaptation. Training muscles increase their strength. This is an adaptation.

The theory that works best is a combination of training muscles and movements. Training a movement will make the body move more efficiently. At the same time, if a muscle is weak, the fastest way to make it stronger is to isolate it. Train the movement first because a movement requires more energy. Train the muscle second. The combination of movements and muscles is hard to beat (Christine, 2000).

Functional training is old news in the sports and rehabilitation world, but it wasn't until just a few years ago that it really came to my attention because I started seeing it catch on in a big way inside our health clubs. All of a sudden, the trainers had medicine balls, core balls, core boards, rubber tubing, stability balls, rollers and foam pads all over the place, whereas just five years ago, there wasn't a ball to be found in the entire joint (Michael, 2004).

The idea behind functional strength training is that the body is integrated, with hundreds of muscles working together to perform a variety of functions. Functional programs are designed to mimic everyday activities. These activities range from moving furniture to swinging a golf club.(Ron,2003)

Functional strength training simply means training our bodies to better perform the types of movements we use for everyday living. The time spent developing this specific strength, flexibility and agility have the optimum carry-over into daily activities (Mackelvie, et al., 2002).

Functional Strength is a combination of all elements of fitness to produce peak performance for your specific needs. Whether your goal is to look better, feel better, or perform better - Functional Strength Training will help you achieve your fitness goals. Functional Strength begins with a thorough evaluation of your current fitness level to uncover your strengths and weaknesses. Based on the results of your evaluation, a program will be designed to complement your strengths and improve your weak points (Michael, 2004).

Functional Strength goes beyond where some

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fitness programs fall short. We realize that to have strength requires a balance of joint mobility, endurance, muscle flexibility, balance, speed, agility, quickness, body composition, and "mindfulness"; as well as attention to appropriate rest/sleep, nutrition, medical health, and stress levels. Our programs vary for everyone to include all aspects of fitness (Maryg, 2003).

As a strength and conditioning coach for college Handball players, there are four goals that must be accomplished with my strength training program. These goals include:

1. Increase maximum strength
2. Increase explosiveness
3. Enhance functional movement
4. Prevent injury

The best way to increase maximum strength is by training with a basic Powerlifting routine. My training program incorporates maximum effort lifts and dynamic effort lifts for the main movements. These exercises are done in the 1–5 rep range and are performed explosively, usually between 70–80 percent of a max. Explosiveness is achieved in two ways. The first is through the dynamic effort lifts of Powerlifting program. The second way train for explosiveness is by incorporating Plyometrics into the programs. And Enhanced functional movement is achieved through exercises that relate directly to the movements that my Handball players will use on the mat. Wrestling involves a lot of core movement, especially in the hips. To improve strength in this area, a lot of medicine ball work. Woodchoppers are not only a great way to increase functional strength but can also act as a good warm up.

Continuing the exercise an adaptation of the cardiovascular system is verified, with the increase of the cardiac rhythm and cardiac force, increase of the arterial pressure, adaptation of the respiratory system, increase of the sanguineous flow, the increment of the metabolism, the rise of the glucose concentration in the blood, increase of glycolysis in the liver and muscle. All these factors, inset, contribute to a good performance of the physical exercise (Guyton, Hall, 1998). The presence of oxygen, although indispensable, can become dangerous, promoting oxidative stress. The increase of the volume of oxygen favours the production of reactive oxygen species (ROS), unchaining of oxidative stress, with all the baleful consequences (Sayre, et al., 2001; Sousa,et al., 2005). The ROS increase can compromise the antioxidant (chemical and enzymatic) defence available in the organism.

Free radicals are capable of independent existence and are produced in all living cells.

Reactive oxygen species (ROS) or reactive nitrogen species (RNS), e.g., superoxide (O2), hydroxyl (OH•), alkoxyl (RO•), peroxyl (ROO•), and hydroperoxide (ROOH) can oxidize other biological molecules, including carbohydrates, amino acids, fatty acids and nucleotides.

Previous data shows the high level of lipid peroxidation from detection the malondialdehyde (MDA) represented the oxidative stress in the body (Halliwell and Gutteridge, 1999). Scavenging of all free radicals produced in vivo by both enzymatic- and non-enzymatic antioxidants usually occur. Antioxidant enzymes include superoxide dismutase, glutathione peroxidase and catalase. The main non-enzymic antioxidants include glutathione (GSH), vitamin E and vitamin C (Cooper et al., 2002) proposes to total antioxidant capacity (TAC) in the biological system. The potential sources of free radical generation in exercising muscle are mainly from mitochondria, xanthine oxidase, prostanoid metabolism, catecholamines, NAD (P) H oxidase and secondary sources such are phagocytosis or calcium accumulation (Jackson, 2000).

Generally. Endurance exercise can increase oxygen utilization from 10 to 20 times over the resting state. This greatly increases the generation of free radicals, and the muscles produce a substance called lactate and hydrogen ions (acid) faster than we can use or get rid of them. The aim of this study was to investigate that Effect of functional strength training on oxidative stress and certain physical variables for young Handball players.

Material and Methods

Experimental Approach to the Problem

Two groups (experimental and control) performed a pre and post - training designed intervention in which Vertical Jump Test (VJ), Seated Medicine Ball Throw (SMBT) , leg strength (LS) back strength (BS) by the dynamometer , Dynamic strength test (DST) and Performance levels of landing in floor exercise (LFE) were recorded. The experimental group (EG) (10 young Handball players) trained 1 hour per day 3 times a week on functional training besides the wrestling training for ten weeks. The control group (10 young Handball players) continued their normal training, while the experimental group completed a functional training program to see whether this type of training modality would have a positive or negative or no effect on (VJ), (SMBT), (LS) and (PLL).

Samples

Twenty young Handball players, divided into (2) group. The experimental group (n = 10) performance functional strength training and control group (n = 10) performed traditional exercise. Blood and urine samples were collected before and after (10) weeks. Serum uric acid (UA), creatine phosphokinase and urinary malondialdehyde (MDA) were evaluated. As markers of oxidative damage to lipids and proteins. Subject's parents and coaches were required to read and complete a health questionnaire and informed consent

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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document; there was no history of injuries, diabetes or recent surgery.

Testing Procedures

Subjects were assessed before and after 10-weeks of complex training program all measurements were taken one week before and after training at the same time of day. Tests followed a general warm-up that consisted of running, calisthenics, and stretching.

Static strength test (LS) (BS)

A Takei leg and back dynamometer was used to measure the static leg strength. The subjects stood on the dynamometer platform and crouched to the desired leg bend position, while strapped around the waist to the dynamometer. At a prescribed time they exerted a maximum force straight upward by extending their legs. They kept their backs straight, head erect and chest high. 3 trials were allowed to the subjects and the best score was taken. Subjects had a rest between the trials (Jensen &Fisher).

Standing Stork Test (SST):

To assess the ability to balance on the ball of the foot.

- The athlete Remove the shoes and socks (they might cause you to slip or gain extra leverage).

Place your hands on your hips.

- Place one foot flat against the inside of the other leg's knee.
- There should be one foot that is resting flat on the floor (the one you're standing on) – lift your heel off the ground and put all of your weight on the ball of that foot.

The athlete should practice for about a minute before testing and the test begins counting from the moment you lift your heel from the ground

Hand Grip Strength Test

The purpose of this test is to measure the maximum isometric strength of the hand and forearm muscles.

The subject holds the dynamometer in the hand to be tested, with the arm at right angles and the elbow by the side of the body. The handle of the dynamometer is adjusted if required - the base should rest on first metacarpal (the heel of the palm), while the handle should rest on middle of four fingers. When ready the subject squeezes the dynamometer with maximum isometric effort, which is maintained for about 5 seconds. No other body movement is allowed. The subject should be strongly encouraged to give a maximum effort.

Dynamic balance

Dynamic balance is very important in sports which need too many joint awareness, and overall proprioception. Balance test investigated by 5 m-timed-up-and-go-test (5m-TUG). Subjects performed 5-TUG with time taken to rise from a chair, walk a set distance 5 m, turn around, walk back and sit down. Each subject was given 2 practice trials performed to familiarize. All subjects completed three trials with 1 min recovery between trials. The less time for each trial was recorded.

Blood test

Blood is drawn from a vein (venipuncture), usually from the inside of the elbow or the back of the hand. A needle is inserted into the vein, and the blood is collected in an airtight vial or a syringe. Preparation may vary depending on the specific test.

Statistical analysis

All statistical analyses were calculated by the SPSS statistical package. The results are reported as means and standard deviations (SD). Differences between two groups were reported as mean difference ±95% confidence intervals (meandiff± 95% CI). Student's t-test for independent samples was used to determine the differences in fitness parameters between the two groups. The $p<0.05$ was considered as statistically significant.

Results

Table 1. Anthropometric Characteristics Training experience of the Groups (Mean ± SD)

Group	N	Age [years]	Weight [kg]	Height [cm]	Training experience [years]
Experimental	10	13 ± 1.5	44 ± 2.7	147 ± 2.95	3 ± 0.7
Control	10	14 ± 1.8	42 ± 3.4	148 ± 3.11	3 ± 0.8

Table 1 shows the age and anthropometric characteristics of the subjects. There were no significant differences were observed in the anthropometric characteristics and Training experience for the subjects in the different groups.

Table 2. Mean ± SD and "T" Test between the two Groups (experimental and control) in Dynamic balance, Hand Grip Strength, Static strength test (LS) (BS)andPerformance level of running a shoot

Variables	Experimental group		Control group		T test	Sign.
	Before	After	Before	After		
Standing Stork Test	32.11 ±2.09*	38.31 ±3.11	32.74 ±3.19	33.85 ±2.89	4.60	S
Dynamic balance	10.16 ±1.15*	12.46 ±1.43	9.92 ±0.87	10.03 ±1.08	5.93	S
Handgrip Strength	25.68 ±2.54	26.16 ±2.63	25.31 ±2.46	25.87 ±3.02	0.32	NS
Static strength test (LS)	59.42 ±3.84	62.22 ±4.89	59.25 ±4.26	60.74 ±4.38	0.98	NS
Static strength test (BS)	37.51 ±4.26*	45.22 ±3.79	38.05 ±4.37	40.31 ±3.28	4.27	S
Performance level	3.01 ±0.41*	4.13 ±0.73	2.97 ±0.59	3.06 ±0.62	4.86	S

Table 2 shows that:

1.Significant Difference between the experimental group and control group in Standing Stork Test , Dynamic balance. Static strength test (BS) and Performance level of Running shoot for posttest to the experimental group.

2.No Significant Difference between two groups in Handgrip Strength and Static strength test (LS)

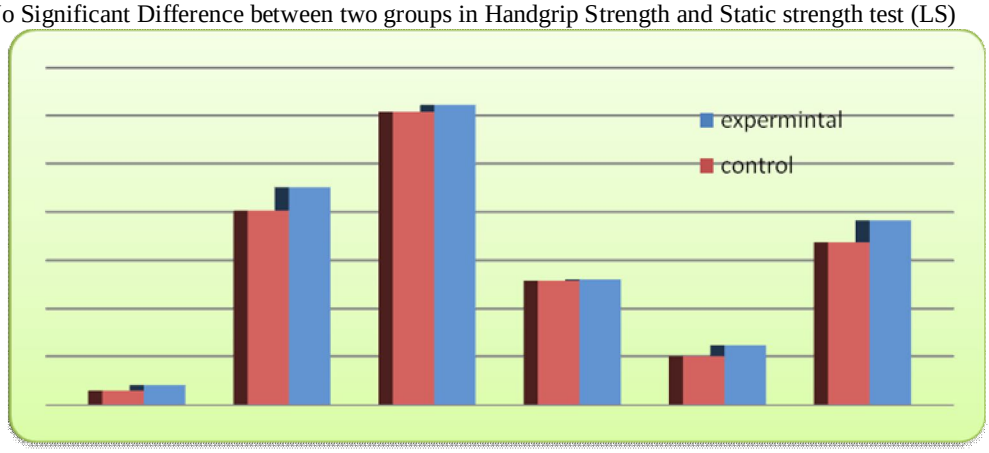

Fig 1 shows the differences between the two groups (experimental and control) in Dynamic balance , Hand Grip Strength , Static strength test (LS) (BS)and Performance level of running a shoot

Table 3. Mean ± SD and "T" Test between the two Groups (experimental and control) in malondialdehyde (MDA),creatine phosphokinase (CPK) and Serum uric acid (UA)

Variables	Experimental group		Control group		T test	Sign.
	Before	After	Before	After		
MDA (mmol/L)	11.09 ±0.65*	10.11 ±0.58	11.11 ±0.37	11.10 ±0.88	4.13	S
CPK (umol/L)	185.22 ±18.25*	197.46 ±17.73	181.87 ±15.64	183.08 ±17.11	2.55	S
UA (umol/L)	298.78 ±49.74	277.61 ±63.63	283.41 ±38.46	275.87 ±55.02	0.09	NS

Table 3 shows that:

1.Significant Difference between experimental group and control group in malondialdehyde (MDA), creatine phosphokinase (CPK) for posttest to the experimental group.

2.No Significant Difference between two groups in Serum uric acid (UA)

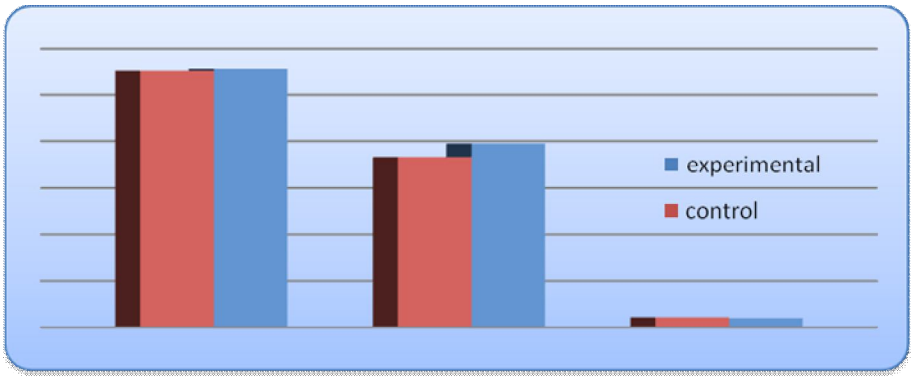

Fig 2 shows the differences between the two groups (experimental and control) in malondialdehyde (MDA), creatine phosphokinase (CPK) and Serum uric acid (UA)

Discussion

This study assessed the effects of a 10-weeks functional training program, on the powerful, complex movement performances, total protein, albumin concentration and erythrocyte SOD activities. Experimental results indicated that all variables were significantly increased in the experimental group only after the contrast training program.

The researchers believed that , the training program which designed and implicated on the experimental group were affected and improvement this variable .

Exercise is not just important for general health, it helps build bone mass in youth and slows down bone loss in adults. Exercise is also a factor in helping to reduce the risk of falls as it strengthens muscles, increases flexibility, and improves coordination and balance. During physical activity bones receive messages that they need to work and be strong. When there is a lack of exercise, bones does not receive these messages and lower bone mass can result. Regular physical activity on a long-term basis maintains the benefits of Cardio Health (Cress, et al., 1996).

Both research and anecdotal evidence suggest that functional strength training leads to better muscular balance and joint stability, which in turn results in fewer injuries and increased performance

Current research shows that using natural, continuous, and integrated movements incorporating the use of gravity along with your own body weight or free weights is the best approach to building strength. This type of strength training is called "functional strength training".

Functional strength training has been shown to:

- Increase bone density, thereby reducing the risk of injury due to osteoporosis.
- Improve coordination through the development of proprioceptive feedback mechanisms .
- Develop systems of muscles rather than individual muscles, thereby reducing the risk of tears in ligaments and tendons.
- Increase the strength and power to perform throughout a range of motion for a specific sport or activity.
- Increase resting metabolic rate by increasing lean body mass so more calories will be burned during inactivity.
- Improve use of oxygen throughout the body.
- Improve appearance through overall muscle tone. (B.Halliwell,& M.Gutteridge, 1999)

References

Christine, C., 2000, The Importance of Functional Strength Training,Personal Fitness Professional magazine, American Council on Exercise publication, April

Cooper, C.E., Vollaard., N.B.J., Choueiri, T. et al., 2002, Exercise, free radicals and oxidative stress. Biochem Society Transactions 30: 280–384.

Cress, M.E., Conley, K.E., Balding, S.L et al., 1996, Functional training: muscle structure, function, and performance in older women, J Orthop Sports PhysTher. Jul; 24 (1): pp4-10

Cymara, P.K., David, E.K., Chris, A.M. et al., 2004, Chair rails and lifting characteristics of elders with knee arthritis : functional training and strengthening effects, J American Physical Therapy Association Vol. 83 · N. 1 · January

Guyton, A.C., Hall, J.E., 1998, Fisiologia Humana e Mecanismos das Doenças," Guanabara Koogan.

Halliwell, B., Gutteridge, M.C., 1999, Oxidative stress; adaptation, damage, repair and death. P. 291-301. Free radicals in biological and medicine. 3rd edition. Oxford University Press. NewYork.

Jackson, M.J., 2000, Exercise and oxygen radical production by muscle. P. 57–66. In C.K. Sen, L. Packer and O. Hanninen (Eds) Handbook of oxidants and antioxidant in exercise. Marcel Dekker, Inc. New York.

Mackelvie, R.J., Khan, K.M., Mckay, H.A., 2002, Is there a critical period for bone response to weight – bearing exercise in children and adolescents, a systematic review, the British journal of sports medicine, Vol. 36: pp250-257

Marjke, J., Michael, F., Bianca, R., 2004, A Non-cooperative Foundation of Core-Stability in Positive Externality NTU-Coalition Games , University of Hagen , Sweden .

Maryg, R., 2003, What Makes Functional Training? National Strength and Conditioning Association Vol. 27, N. 1, pp 50–55

Michael, O., 2004, Functional training for sports, Human Kinetics Publishers; 1 edition.

Pes Online Manual, 2001, Optimum performance training for the performance enhancement specialist, National Academy of Sports Medicine,

Ron, J., 2003, Functional Training #1: Introduction , Reebo Santana, Jose Carlos Univ. , USA

Sayre, M., Smith, A., Perry, G., 2001, Chemistry and biochemistry of oxidative stress in neurodegenerative disease," Current Medicinal Chemistry, Vol.8, pp. 721-738.

Sousa, J., Oliveira, P.R., Pereira, B., 2005, Exercíciofísico e estresseoxidativo. Efeitos do exercíciofísicointensosobre a quimioluminescênciaurinária e malondialdeídoplasmático," Rev Bras Med Esporte, Vol.11, pp. 91-96.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 110-115
Original article

THE EMOTIONAL INTELLIGENCE AND GENDER AMONG SPORTS LEADERS IN BAHRAIN KINGDOM- COMPARATIVE STUDY

LATIFA ABDALLA[1]

Abstract

*Purpose.*Emotional intelligence is related to various traits that are highly correlated with effective leadership. These traits are valuable in problem solving and adapting to situations to make better decisions in the management of people and organizations. This study compared the emotional intelligence between the women leaders and men leaders of sport field in Bahrain kingdom.

*Methods.*The sample contains 35 leaders(10 female leaders– 25 man leaders) (mean ± SD , age 45 ± 7.5 years , job experience 20.8 ± 9.3 years). The Bar-On Emotional Quotient Inventory (EQ-i; Bar-On, 1996) was used to obtain the emotional intelligence scores of leaders. A demographic questionnaire was also administered to collect participant personal data.

*Results.*There was a statistically significant between the two gendersin the Bar-On Emotional Quotient Inventory factors.

Conclusions. As a result,we need to prepare the Sports Women Leaders in Bahrain Kingdom on leadership skills.

*Key words:*Emotional Intelligence, gender,leaders.

Introduction

The leader skill level grows, develops, prospers, and they can gain more followers inspontaneous, effortless, consistent, and frequent way. This style and way of natural born leadersattract more and more people as followers. If person can understand own capabilities and shape abilities by excising skills of learning, practice and feedback. In order to be effective leader, individual can improve himself and work with native and acquired skills. There are one hundred and eight skills which portrait a natural born leader. The main of them are self-awareness, a capacity to build rapport, and an ability to clarify expectations.

Individual as a leader provide direction to people who do not know what to do. 'People needdirection when the organizational structure cannot or does not provide it. No organization can create a perfect bureaucracy. Established organizational systems may not offer useful guidance in the face of dramatic change,' (Haghnegahdar, Aghaie, 2006).

The occupational stress is an issue which might be noticed and which is increasing at the level of the whole world. It manifests through high costs both for the employees as well as for the organizations.

In order to manage your own life in a successful way, you have to understand the psychological mechanisms which lie at the base of the Emotional Intelligence. These give us the opportunity to improve our lives.

The best leaders, female and male, use rationally and successfully all obtained skills according to their surroundings, job occupation, environment, situation. That's why all the time the best females' and males' leaders are trying to keep the following: "They do the things they think they cannot do. (Ainura, 2008)

Emotional intelligence is an essential element of leader behavior which acts independently and differently from cognitive intelligence (Bar-On, 2000). Emotional intelligence has its roots in Gardner's interpersonal and intrapersonal intelligence (Jokar, 2007).

(Goleman, 1995) suggests the art of relationships is, in large part, skill in managing the emotions in others, and the skills involved are the abilities that undergird popularity, leadership, and interpersonal effectiveness". People who excel in these skills do well at anything that relies on interacting smoothly with others; they are social stars.

According to (Paul, 2007) for star performance in all jobs, in every field, emotional competence is twice as important as purely cognitive abilities and for success at the highest levels, in leadership positions, emotional competence (intelligence) accounts for virtually the entire advantage"

Emotional intelligence is defined as 'the capacity to recognize and utilize emotional states to change intentions and behavior' and can is summarized as:

- The ability to recognize different emotional states;
- Assessing the effects of emotions on subsequent behavior;
- The ability to switch into the best emotional state to manage a particular situation.

Not surprisingly, an individual athletes' self-awareness to recognize when potential dysfunctional emotional states maybe be affected by, or be possibly

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facilitating ineffective recovery behaviors/strategies, is clearly a desirable skill in the prevention of emotional exhaustive symptoms related to underperformance syndrome and potential burnout.

There are three theoretical approaches of EQ (JD. Mayer, et al. 2007):

1) The specific ability approach
2) The integrative approach
3) The mixed-model approach

The specific ability approach of emotional intelligence focuses mainly on specific skillareas that can be considered as basic to emotional intelligence such as Diagnostic Analysis of Nonverbal Accuracy 2 (DANVA-2).

The integrative approach of emotional intelligence focuses on how multiple relevant specific abilities join together so as to obtain an overall sense of emotional intelligenceas an integrated group such as Emotion Knowledge Test (EKT) and Multibranch Emotional Intelligence Scale (MEIS).

The mixed-model approach of emotional intelligence focuses on mixed qualities thatsuch models target. This approach uses very broad definitions of emotional intelligence that include 'non-cognitive capability, competency or skill' and/or 'emotional and socially intelligence behavior' and take account of 'disposition from the personality domain'. It consists of diverse psychological traits, abilities, styles and other characteristics to emotional intelligence. Emotional Quotient Inventory (EQ-i), Self-Report Emotional Intelligence Test (SREIT), and Multidimensional Emotional Intelligence Assessment (MEIA) are examples of the mixed-model approach.

Since more than a decade and a half of time and emotional intelligence attracts the attention of scientists, researchers and educators to explore depth in its research in its impact on various fields and aspects of life and, in many books published research and theses at the graduate level, but informed them find much discrepancy in agreement on the term in Arabic versus term foreign language to the concept of emotional Intelligence it is sometimes as emotional intelligence and sometimes emotion and once mood, which forced researchers to further scrutiny and research and audit to remove the confusion and unravel the mystery of the use of the term emotional intelligence without other terms a translation true to the concept based on between the hands of the dictionaries and references Arab and foreign (Goleman, 1998). Emotional intelligence is related to one's understanding of themselves and others, their relationship with others, and adaptation to their surrounding environment and these are necessary factors for coping with social and individual demands. Emotional intelligence is tactical (immediate functioning) while cognitive intelligence is strategic (long-term). Emotional intelligence makes prediction of success feasible, for it shows how one immediately employs their knowledge in a certain situation (Mayer, et al. 2007). Nowadays, by resorting to the theory of emotional and social intelligence, researchers are aiming to determine and predict success in achieving a high level of athletic and academic skills (H. Gardner, 1983). It is said that success and skill acquisition depends on several types of intelligence and emotional control. Bar-On (1999) and many other researchers are of the opinion that emotional intelligence can play a considerably more important role than general intelligence in helping the individual achieve success in various educational, occupational, social, and athletic domains. It is thus necessary to pay more attention to emotional skills. In classical theories also emotion is considered as the factor that contributes most to disturbances in adaptive behavior and that is the reason why more emphasis is placed on it (Sadri, et al. 2008). Resorting to emotional intelligence and knowing the skills are not enough for achieving success and research studies show that under at best, general intelligence can only determine 25% of success and 4% of success at worst. The rest depends on emotional intelligence, social intelligence, and chance. According to Stewart, emotional intelligence is a comprehensive schema of the individual's ability to achieve success. In fact, emotional intelligence can well explain the failure of an individual with high general intelligence and the unexpected success of an individual average general intelligence in various stages of life (Sakhi, 2004).

During recent decades, emotion has been regarded as one of the basic, pivotal concepts in different contexts such as social relations, self-regulation, and mental health and has been the subject of numerous research studies, in particular developmental studies. Various studies have compared the predicting power of general intelligence (in its conventional sense) and emotional intelligence in different domains (Sadri, et al. 2008). and as well in sports (Sakhi,2004).Since athletes are more prone to such situations, they seem to be different from non-athletes in this regard (Sakhi,2004).

Although it is important for the Chairpersons to be aware of and monitor the above non-adaptiveresponses, it isalso vital that sports leaders' themselves have theability to monitor their own emotionalstates. In recent years, sports psychology research has seen the rise of a concept namedemotional intelligence and how can it help sports occupational performance.

Given the above contentions, it is surprising that sport psychology researchers have not conducted any studies of sports leaders and its relationship to emotional intelligence in Bahrain kingdom, Therefore,

the purpose of the present research is exploring and comparison of emotional intelligence in women leaders and men leaders of sport field in Bahrain kingdom.

Material and Methods:

Subjects:

The sample contains (35) sports leaders from Bahrain kingdom (10 female leaders – 25 man leaders) (mean ± SD , age 45 ± 7.5 years , job experience 20.8 ± 9.3 years). The Bar-On Emotional Quotient Inventory (EQ-i; Bar-On, 1996) was used to obtain the emotional intelligence scores of leaders. A demographic questionnaire was also administered to collect participant personal data.

Table 1. Age and Job experience of the two groups (mean ± SD).

Variables	Measurement unit	Mean	Standard deviation	Median	skewnes s
Age	Year	52.32	4.51	52.00	0.94
Job experience	Year	33.67	6.34	34.00	1.86

Table 1. Shows the age and Job experience of the subjects. No significant differences were observed for the subjects.

Instrument

BarOn EQ-I

The EQ-I is a 133-item self-assessment instrumentthat uses a 5-point Likert scale (ranging from "Not Trueof Me" to "True of Me") to measure Emotional intelligence on five compositescales and 15 content subscales: Intrapersonal (self-regard, emotional self-awareness, assertiveness, independence, and self-actualization), Interpersonal (empathy,social responsibility, and interpersonal relationship),Stress Management (stress toleranceand impulse control), Adaptability (reality testing, flexibility, and problemsolving), and General Mood (optimismand happiness)(Bar-On 2006, 1997).

Data from each of these scales are used to createone overall composite EQ-I score together with otheraggregate group scores for composite scales and content subscales. Higher scores signify higher levelsof Emotional intelligence.

Procedures

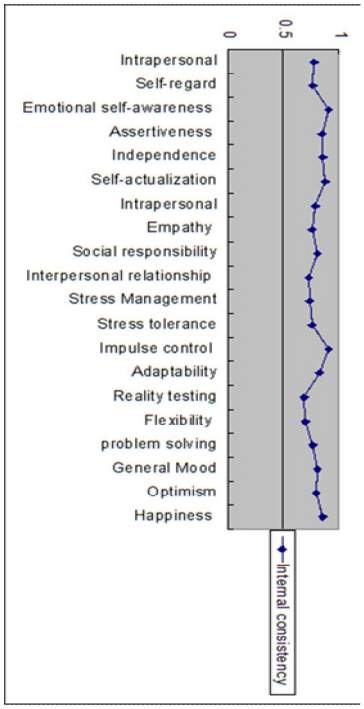
Reliability of EQ-i scale

Internal consistency

The internal consistency was evaluated by examining Cronbach alphas for each scale among (4) sports leaders (table 2). The coefficients range from average 0.69 (Reality testing) to high 0.91 (emotional self-awareness).

Table 2. Internal consistency

EQ-I subscales	Cronbach alphas
Intrapersonal	0.78
Self-regard	0.77
Emotional self-awareness	0.91
Assertiveness	0.85
Independence	0.86
Self-actualization	0.88
Intrapersonal	0.79
Empathy	0.76
Social responsibility	0.81
Interpersonal relationship	0.73
Stress Management	0.74
Stress tolerance	0.76
Impulse control	0.91
Adaptability	0.83
Reality testing	0.69
Flexibility	0.70
problem solving	0.77
General Mood	0.81
Optimism	0.80
Happiness	0.86



Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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Fig 1 explain the Reliability of EQ-i scale

Statistical Analysis

All statistical analyses were calculated by the SPSS statistical package. The results are reported as means and standard deviations (SD). Differences between two groups were reported as mean difference ± 95% confidence intervals (mean difference ± 95% CI). Student's t-test for independent samples was used to determine the differences in psychological parameters between the two groups. The $p<0.05$ was considered as statistically significant.

Results.

Table 3. Mean ± SDand T sign between Bahraini male and female leaders in the emotional intelligence

EQ-I subscales	Female		Male		T sign
	M	SD	M	SD	
Intrapersonal					
Self-regard	37.09	1.36	40.12	2.15	Sign
Emotional self-awareness	32.14	2.02	35.06	2.16	Sign
Assertiveness	27.36	3.11	29.68	3.20	No Sign
Independence	27.06	2.95	30.28	3.01	Sign
Self-actualization	32.69	2.97	38.26	2.68	Sign
Intrapersonal					
Empathy	37.25	3.15	35.91	3.54	No Sign
Social responsibility	41.26	2.05	37.09	2.77	Sign
Interpersonal relationship	48.39	2.11	42.87	2.94	Sign
Stress Management					
Stress tolerance	41.28	2.45	38.56	2.11	Sign
Impulse control	40.22	3.89	41.69	3.09	No Sign
Adaptability					
Reality testing	45.77	3.36	56.15	3.11	No Sign
Flexibility	35.04	3.22	37.89	3.47	No Sign
problemsolving	34.68	2.78	31.07	2.34	Sign
General Mood					
Optimism	34.35	3.98	36.11	3.15	No Sign
Happiness	39.19	2.67	42.44	2.59	Sign

Table 3 shows that:

- Significant Difference between male and female leaders in Self-regardfor male leaders.
- Significant Difference between male and female leaders in Emotional self-awarenessfor male leaders.
- No Significant Difference between male and female leaders in Assertiveness.
- Significant Difference between male and female leaders in Independencefor male leaders.

- Significant Difference between male and female leaders in Self-actualizationfor male leaders.
- No Significant Difference between male and female leaders in Empathy.
- Significant Difference between male and female leaders in Social responsibility for female leaders.
- Significant Difference between male and female leaders in Interpersonal relationship for female leaders.
- Significant Difference between male and female leaders in Stress tolerance for female leaders.
- No Significant Difference between male and female leaders in Impulse control.
- No Significant Difference between male and female leaders in Reality testing.
- No Significant Difference between male and female leaders in Flexibility.
- Significant Difference between male and female leaders in problem solvingfor female leaders.
- No Significant Difference between male and female leaders in Optimism.
- Significant Difference between male and female leaders in Happiness for male leaders.

Discussion

This study addresses the concept of a modern and important of emotional intelligence, which has received attention of researchers in the field of psychology and management together because of its importance and its impact on many of the attitudes and behaviors in humans in general and the staff and workers in particular, and as one of the key indicators to predict the capabilities and potential of employees and workers , especially managers, and study the relationship between emotional intelligence and the current study variables (performance) helps to shed light on this relatively modern concept and helps to understand the nature of this concept.

In addition to identify the level of performance of leaders and managers in private organizations and they have the effect of a strong and essential to the success of the organization and achieve its objectives, in light of today's changing world and volatile , especially after the global economic crisis that gripped much of organizations and private institutions and even public and some governments, and what will represented by the results of this study to help leaders and managers in promoting estimated managers to take appropriate decisions in a timely manner in light of the changes and fluctuations that is sweeping the world , and in order to improve their performance and contribute to solving some of the problems between managers and workers and unify their efforts to achieve the goals of the organization and public through what will come out by the this study findings and recommendations to contribute to the development and draw the attention of managers to raise the level of emotional intelligence they have.

With regard to the importance of the Emotional Intelligence in our everyday life, all the specialists agreethat it has a positive influence on the quality of life and it has the capacity to get better. We might improve thecapacities of the emotional intelligence through training and self-regulation, and thus we might improve the quality of life as well.(Wong& Law, 2002)

Often the emotional intelligence behavior leadership, due to the impact of administrators in the conduct of their employees and in their working lives, it constitutes one of the variables outstanding leadership qualities administrative successful, because the success of management depends on his skills in dealing with the emotions of his staff and their feelings, which contributes to the smooth handling of their needs, solve problems, and motivate them, and raise the motivation towards distinctive performance.(Sadri, et al. 2008)

Increasingly, attention intelligence emotional with educational administrators as it relates to their conduct leadership in operations management, supervisory and especially with regard to the management of talented and departments related attached to direct and which need further development and innovation and creativity day after day to keep pace with the times and meet the needs of gifted students and creators, as they say, the lost thing does not give him If management does not have the emotional intelligence.

(Pandey, 2006). Tried to find out adolescent girls with high, moderate and lowemotional intelligence differ on various types of deprivation. The random sample of 100 IX Class adolescent girls studying in fourHindi medium secondary schools of Varanasi city. The Findings were the girls having low emotional intelligence perceive variousdeficiencies more in their environmental factors likes, social isolation,insufficient housing, and other infrastructural facilities, economic

According to our results , we could observed that the high level of emotional intelligence among sports leaders through the high proportion of sympathy prevailing among them for the presence of blood ties and lineage and kinship, and their ability to regulate their emotions and communicate social and their ability to manage their emotions and increase their knowledge of emotional which is the key dimensions of emotional intelligence , and can also be attributed to the nature of the air emotional that prevails in the environment of Bahrain kingdom where there is sympathy and

empathy and the ability to social interaction and communication and the expression of feelings and control positively , as directed feeling positive activities in their daily lives , can also be attributed to the educational administrators have the awareness that they must be distinguished from the others by virtue of their work, and thus they possess distinct patterns of behavior , and this leads to the continued pursuit of possessing the skills and abilities of emotional intelligence needed to develop themselves.

And within the dimensions of a measure of emotional intelligence , it came after a " Intrapersonal " in the first place while came after " Stress Management" in last place and explains the researcher , however, that knowledge sentimental enable the president to understand the feelings and emotions of subordinates, and then be more able to deal with them high efficiency and sympathy for them , especially in times of distress making more effective in subordinates work knowledge is compassionate contribute in the formation of the desired relationships and friendships that have a positive impact on performance.

Conclusions.

As a result,we need to prepare the Sports Women Leaders in Bahrain Kingdom on leadership skills.

References.

Ainura, K. 2008. Female and gender leadership, Master's Program in Leadership and Management in International Context Baltic Business School, University of Kalmar, Sweden

Bar-On R. & Parker Jda**,** 2000,The handbook of emotional intelligence, San Francisco, CA: JosseyBass.

Bar-On, R, 1997, Bar-On Emotional Quotient Inventory: A measure of Emotional Intelligence. Toronto, Ontario: Multi-Health Systems.

Bar-On, R, 2006, The Bar-On model of emotional-social intelligence (ESI). Psicothema18 Suppl:13–25.

Gardner, H. 1983.Frames of mind. New York: Basic Books, 1983.

Goleman, D. 1995. Emotional intelligence. New York, NY: Bantam Books.

Goleman, D., 1998,.Working with emotional intelligence. New York: Bantam Books.

Haghnegahdar, F, Aghaie, M. 2006,The relation between emotional intelligence and sport success in professional and quasi-professional athletes in Shiraz. (Dissertation) Isfahan: Khorasgan, Islamic Azad University.

Jokar, B. 2007)Exercise dependence: diagnostic andtherapeutic issues,Contemporary Psycho, 2:2.

Mayer, Jd, Roberts Rd, Barsade Sg. (2007).Human abilities; Emotional intelligence. Annu Rev Psychol.;59:507-36.

Pandey, K. 2006.Deprivation among Emotionally IntelligentGirls. Journal of Educational Studies, Vol. 4. No.1 &2. pp. 9-16.

Sadri, A. Akbarzadeh, N. Kambiz, P. 2008.leadership and gender,Psychologl Res , 11, 3-4.

Sakhi, P. 2007.Emotional intelligence and sport success in athletes,MSc thesis, Islamic Azad University,Khorasgan Branch,

Wong, Cs. Law, Ks 2002.The leader Quart, 13:243-274.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 116-121
Original article

THE EFFECT OF KINESTHETIC PERCEPTION EXERCISES ON DISTANCE AND TIME START IN CRAWL SWIMMING

MOHAMED ELBAHRAWI[1]

Abstract

Purpose. Learning new motor skills or adjusting them during the learning process is one of the most important goals in the field of motor learning. Therefore, it is difficult for a swimmer to see all the parts of his body and to know its directions and the angles in which he moves. Hence, the cognitive operations such as perception, imagination and motor recognition are of the most important factors affecting the process of learning skills and acquiring a good sports technique. The sensory receptors (whether they are visual , auditory or sensorimotor) , as a primary condition for learning , are responsible for adjusting or modifying the body's position , direction and relation to its different parts and for the relationship between these parts.Consequently, building a sports technique, which is based on a scientific ground, requires some conditions that have their effects on constituting the right motor perception of the skill. The most important of these -- according to scientists and experts in motor learning -- are the visual, auditory and sensorimotor. These conditions are of the most important points that help in building and developing the motor perception of the learnt.This study aims at identifying the influence of specifically exercises to the sensorimotor perceptions on the distance and time of starting from upwards in crawl swimming.

Methods. The sample consists of (30)infant swimmers (sprouts),(15) sprouts for the suggested learning programmed of exercises for the sensorimotor perception was applied on them via its learning units. And the control groupconsists of (15) sprouts practiced the traditional programmed.

Results. Results indicated that The most important conclusion that the researcher has come to was that the suggested programmed for developing the sensorimotor perceptions under investigation via a group of specifically exercises for the sensorimotor perception on the distance and time of start in crawl swimming, has a positive effect on and is better than the traditional programmed in developing both the special sensorimotor perceptions and the skillful & numeral achievement level of the children in swimming.

Conclusions. In conclusion, the researcher recommends that the trainers in the Egyptian League for swimming and its training centers must be aware to the importance of developing the sensorimotor perceptions of beginners so that their level of skillful achievement raises as it is the base for improving the numeral level in swimming.

Key words: Kinesthetic Perception, Distance Start, Time Start, Swimming

Introduction

Swimming is one of the individual competitive sports in which the performance takes the form of competition and it is sometimes complex. Therefore, learning new motor skills or adjusting a learnt one during the process of learning is one of the most important goals in the field of motor learning .So, it is difficult for the swimmer to see all his body's parts and to know its directions and the angles in which it moves. Hence, the responsibility of the cognitive processes such as perception, imagination and motor recognition as some of the most important factors affecting the process of learning skills and acquiring a good sports technique. The sensory receptors of this technique (whether they are visual ,auditory or sensorimotor) being a primary condition for learning , are responsible for changing or adjusting the position of the body and its direction and relation with its parts and for the relationship between these parts. Since starting has a great importance in winning swimming competitions ,especially in short distances, it is classified as one of the complex skills in which the motor sequence consists of a specified group of parts , stages and motor elements. Thus the swimmer, in order to achieve the largest distance in air and in water and on entering the water , while maintaining the body's angle when it enters water and the great smoothness of slipping ,should start as much powerful as possible and in the most suitable angle, under the available conditions. This suggests setting up the right technique of starting in order to contribute mainly and effectively to develop the level of numeral achievement in competitions (Hussein, 1986)

Therefore, building a sports technique on a scientific basis requires providing the conditions that affect setting up the right motor perception of this skill. The most important of these conditions -according to scientists and experts in the field of motor learning - are the visual ,auditory and sensorimotor .These are of the most important elements which helps develop the

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motor perception of the learnt.

The kinesthetic perceptions play a significant role in developing the corresponding processes related to complex movements, which require the distinction between its different parts and the precise control in the performance while keeping correct positions.

The individual becomes aware of his environment through his senses. The changes in his internal as well as external environment excite his senses that in turn affect his nervous system so that he can recognize the fact.

Through the survey study and the researcher observation to the process of learning, we found that the swimmers' low numerical level in most free competitions (crawl swimming) may sometimes be due to their retard in the time and distance of start as a result of not performing the starting skill correctly and not concentrating on the start signal which in turn leads to a decrease in the swimmer's reaction speed. The researcher found that the results of some primary survey experiments on the different classes' sprouts are that they have a problem in making a good start from the starting cube as they don't keep the angular appropriateness between the parts of the body (arms, stem, and legs). This causes ineffectiveness in the performance of the starting skill and the pre-thinking in the movements that will be done after the start skill and in the way of ending the race, etc., all of which will lead to a poor start for the sprouts. As a result, the power exerted for pushing the start cube may be little and there may be a poor perception and sensation of the exerted power in the muscles of arms and legs for the performance of the starting skill (Van Dahlen, 1990).

Thus, the angular sensation of the body's joints and the sensations of the flying distance and the place and of the motor direction of the start skill are important factors for the swimmer for the right performance of the skill in order to reduce resistance in water. Otherwise, the swimmer's body will deviate and there will be a delay in the performance of the starting movement and a problem when the body enters water (in the angle between the body and the water) all of which will cause the swimmer to lose the smoothness of the body in water and the power that comes out of the start to do the underwater slipping easily to benefit from it in doing the start distance at 7.5 meters smoothly and quickly.

As a result of these factors which affect starting and which have the greatest importance in the right performance of it , the researcher found that they should be taken into account as they have a great influence on the distance and time of start in short-distance crawl swimming. The most important requirements of a successful start include:

- A quick response so that the swimmer can precede his participants in setting out and getting into water.
- The ability to generate the greatest power for pushing the body as far as possible.
- Making use of the mechanical principles of the swimmer's body to achieve the best push and the best angle for entering water.
- Making use of the mechanical principles that helps the speedy movement of the body.

From this came the idea of this research for identifying the influence of using specific exercises for the sensorimotor perceptions on the distance and time of start in crawl swimming (under investigation).

Hence, this research aims at identifying the influence of specific exercises for the sensorimotor perceptions on the distance and time of starting from upwards in crawl swimming.

Hypothesis

There are statistically significant differences between the pre and post measures for the experimental and control groups in the sensorimotor measurements. They are of the following order:

- Time perception.
- Directions Perception.
- Distance perception.
- Place perception.
- Speed perception.
- Angular sensation of the thigh, shoulder and knee joints perception.

The post measurements for the experimental group were better.

Methods

The sample consists of (30)infant swimmers (sprouts),(15) sprouts for the suggested learning programmed of exercises for the sensorimotor perception was applied on them via its learning units. And the control group consists of (15) sprouts practiced the traditional programmed.

Procedures

Steps of program design

Components Setup program**:**

The components of the program include the proposed using some common perceptions - kinetics at the level of technical performance to start from the top (grab - track) crawling on the belly of the buds **:**

Senseperceptions in which the kinetics of the program

- Perception the distance
- Perception the place
- Perception the speed
- Perception the sense of angular hip joints - shoulder - knee
- Perception the time
- Perception the trend

The duration of the educational program

(10) Weeks,(4) modules per week with a total of 40 educational unit, the time of the module (60) minutes, the time workouts sense - motor within each educational unit 30 minutes.

Distribution sense perceptions - within the tutorial kinetics

First week: - cognitive exercises kinesthetic sense to realize the distance

Second week: - Revision cognitive exercises kinesthetic sense to realize the distance + cognitive exercises kinesthetic sense to realize own place

Third week: - Review on cognitive exercises kinesthetic sense to realize own place + cognitive exercises kinesthetic sense to realize own speed

Week Four: - the first and second unit (Review on cognitive exercises kinesthetic sense to realize own speed + perceptive sense of kinesthetic exercises on the development of a sense of the shoulder joint angular**(** The third and fourth unit (Review on cognitive exercises kinesthetic sense to realize own speed + perceptive sense of kinesthetic exercises on the development of angular sense of the knee joint)

Week Five: - the first and second unit (Review on cognitive exercises kinesthetic sense on the development of the angular sense articular knee and shoulder + perceptive sense of kinesthetic exercises on the development of a sense of angular hip**.**

Week Six: - Review on cognitive exercises kinesthetic sense on the development of a sense of angular joints of the shoulder and hip and knee + cognitive exercises kinesthetic sense realization time

Seventh week: - Review on cognitive exercises kinesthetic sense for realization time + cognitive exercises kinesthetic sense realization trend

Week VIII, IX and X : - (a review on the all sense perceptions kinetics of the program is within the distribution panels educational for those weeks as follows**.**

Within each educational unit will be reviewed three Perceptions average of 10 minutes per aware this way audit each unaware twice a week taking into account the focus on turnover at that stage of the program**.**

Time distribution of educational alone for two experimental and control groups is 60 minutes and is distributed as follows- **:**

First: - For the experimental group**:**

- A 10-minute warm - up
- Duration of educational activity 15 minutes
- A cognitive sense of dynamic exercises 30 minutes
- Calm 5 minutes

Second: - For the control group.

- Warm up 10 minutes
- Duration of educational activity 15 minutes
- Applied duration of the activity + educational completing 30 minutes
- Calm 5 minutes

Execute the research.

After confirming the availability of all the conditions and devices to sense perception tests - motor skill tests and anthropometric measurements of the total under consideration and necessary for the application of the proposed program, the researcher, including the following**:**

Pre-measurement.

Measurement was performed for both groups as follows.

- Growth variables selected under discussion**.**
- Perceptions sense - selected kinetics under discussion**.**
- Measuring the level of technical performance skills under discussion**.**
- And in the period from Saturday 14 / 7 / 2010 to Wednesday 18 / 7 / 2010**.**

Basic search experience.

The researcher applied the proposed educational program on the experimental group for period of (10) weeks from the day Wednesday, 25 / 7 / 2011 until Monday, 15 / 7 / 2011, of which 4 units weekly.

Post-measurement.

After the completion of the application of the proposed program, the researcher conducting the dimensional measurement on Saturday, Sunday and Monday, 20, 21, 22/ 10 /2011 for both the experimental and control groups in the same circumstances during the same tests selected in the measurements of the two groups in the tribal perceptions under discussion and the level of performance skill to start a swim belly crawl under discussion.

Statistical analysis

All statistical analyses were calculated by the SPSS statistical package. The results are reported as means and standard deviations (SD). Differences between two groups were reported as mean difference ±95% confidence intervals (meandiff ± 95% CI). Student's t-test for independent samples was used to determine the differences in mental parameters between the two groups. The $p<0.05$ was considered as statistically significant.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
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Results

Table 1. Anthropometric Characteristics and training experience of the Groups (Mean ± SD)

Group	N	Age [years]	Weight [kg]	Height [cm]	Training experience [years]
Experimental	10	11 ± 1.5	40 ± 2.7	145 ± 2.95	4 ± 0.7
Control	10	10 ± 1.2	41 ± 3.4	146 ± 3.11	4 ± 0.8

Table 1 shows the age and anthropometric characteristics of the subjects. There were no significant differences were observed in the anthropometric characteristics and Training experience for the subjects in the different groups.

Table 2. Mean ± SD and "T" sign. Among two groups (experimental and control) in sense perceptions and performance level of 50m swimming

Variables	Experimental group		Control group		T sign.
	Pre	Post	Pre	Post	
Perception the distance	1.60 ±0.70	2.70±0.67	1.60 ±0.69	2.20±0.67	Sign.
Perception the place	1.60±0.70	2.70±0.67	1.60±0.71	1.90±0.67	Sign.
Perception the speed	1.70±0.67	2.90±0.88	1.75±0.70	2.00±0.77	Sign.
Perception the sense of angular hip joints	1.60±0.52	2.90±0.32	1.60±0.55	2.00±0.50	Sign.
Perception the sense of angular shoulder joint	1.60±0.52	2.70±0.67	1.60±0.50	1.80±0.79	Sign.
Perception the sense of angular knee joint	2.20±0.42	3.80±0.92	2.20±0.47	2.80±0.95	Sign.
Perception the time	1.90±0.58	3.30±0.48	1.90±0.67	2.00±0.55	Sign.
Perception the trend	1.40±0.52	2.70±0.67	1.40±0.55	1.90±0.70	Sign.
Start time of (50)m swimming	4.19±0.12	4.01±0.11	4.22 ±0.14	4.15±0.13	Sign.
Time of (50)m swimming	35.26±0.87	34.16±0.79	35.39±0.77	35.12±0.65	Sign.

Table 2 showed that significant differences were found among the groups in all variables.

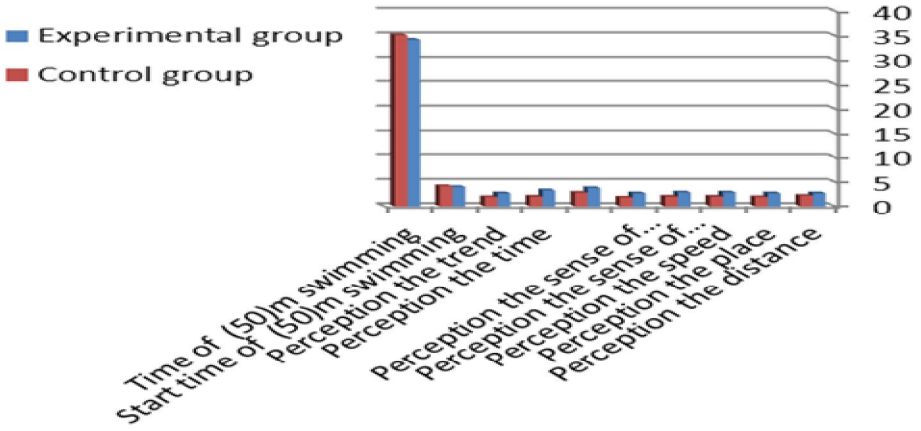

Fig 1 shows the differences between the two groups (experimental and control) in sense perceptions and performance level of 50m swimming.

Discussion

Due researcher differences function Statistically, ratios improved incident among students in the experimental group in the factors of cognitive sense - kinesthetic under discussion for the control group to the positive impact of the proposed program using exercises diverse perceptions of the sense of mobility under discussion, represented in the exercises arms and legs and exercises rotation and a sense of angles of the body inside and outside water which led to the development of responses motor that occurred as a result of capacity development sense - kinetics under discussion, where little (Mona, 1998) that the process of motor learning is sensory input and cognition have the same importance of the ability to move easily and agile as any individual cannot be skillful in athletic

performance without being friendly to cognitive function incomplete and influential.

And refers (Magdy, 2007) that the mutual influence between the organs of the body and the surrounding medium plays a big role in the process of routing and cognition sense - kinesthetic A special abilities associated with the operation higher mental that qualify for the performance of any skill mobility efficiently and allows to control the steering motor in terms of the performed (range and direction and time.

As a shepherd researcher diversity in the exercises cognitive sense - kinetic diversity of elements under discussion, which confirms (Ehab, 2008) that the cognitive sense - kinesthetic settle in the sense of procedure of the joints , muscles and tendons, which is like any sense of another extension can be provoked or alert , and this could be alert the result of pressure or tension or contraction or twitching muscles and diastole of this movement is given watchful for nerves and sense perception.

Indicates (Weinberg, 1998) to that it must be the perception of mental skill of the same speed, rhythm motor skill to be developed and upgraded in the sense that equal time visualization with real-time performance , and this contributes to the transition from perception to reality as soon as possible , this has been confirmed by many and studies that were conducted in a variety of areas on the effectiveness of mental visualization to develop and enhance performance on the importance of access to accomplishment.

It is noteworthy (Wael, 2002) that the sense of distance and time and a sense of dynamic behavior of the joints of the body of the aspects affecting aspects of performing in the light of the findings of the some of the researchers and the amount of the importance of these capabilities in the field of training swim trying to guide the trainers to capacity sense of mobility and its impact on the level of digital as the effectiveness of and directing the movement lacking in the absence of information on variables basic (time - power - distance) and because the organs and sensory perception are the sources of self-core of that information so clear the importance of studying different types of capacity sense - kinetics of both phenomena individually or in their mutual relations gaining special importance.

Conclusion:

In the light of the study's sample, aims and hypotheses and depending on the scientific procedures related to the study's subject and the results found through application and statistical measurements, the researcher has come to the following conclusions:

1- The suggested learning programmed using the sensorimotor perceptions under investigation has a positive effect on developing these sensorimotor perceptions.

2- The suggested learning programme using the sensorimotor perceptions under investigation has a positive effect on improving the time of start performance in crawl swimming which is under investigation.

3- The suggested learning programme using the sensorimotor perceptions under investigation has a positive effect on improving the time of performance for the distance in crawl swimming which is under investigation.

4- There are statistically significant differences between the pre and post measurements for the benefit of the post measurements of the experimental group in the variables (time of performance - sensitometer perceptions under investigation)

5- There are statistically significant differences between the pre and post measurements for the benefit of the post measurements of the control group in the variables (time of performance - sensitometer perceptions under investigation)

6-There are statistically significant differences between the pre and post measurements for the experimental and control groups for the benefit of the experimental group in the variables (time of performance - sensitometer perceptions under investigation)

7- The experimental group is better than the control group in the rates of improvement in the variables of time of performance and the sensitometer perceptions under investigation).

8- The learning programme used in the learning process is insufficient for achieving an appropriate level of skillful performance. This is evident in the results of the control group compared to the results of the experimental group.

Recommendations.

According to the results and conclusions of the study, the researcher recommends:

1- Applying the suggested learning programmed, which uses the sensorimotor under investigation on children and beginners in the different clubs and youth centers as it, achieved positive results?

2- Conducting more studies and scientific researches in addition to learning programme on children in different sports using the sensorimotor perceptions for improving the process of learning and a good acquire of skills.

3- Taking care of the special programme in different fields at this age as it has many characteristics, which help the rapid learning.

4- Taking care of the programme of starting as they have an effective influence and a close relationship with the entire time of performance in swimming.

5- Conducting similar researches for developing the aspects of sensorimotor perception for the other types of swimming so that we can depend on their results in raising the level of performance.

6- Making a real use of the results of these studies and researches in improving the levels of the different sports in general and of swimming in particular.

References

Ehab, A., 2008, The effect of cognitive development of a sense of - kinesthetic Ali effectiveness performance skills to emerging judo under 12 years old, Master Thesis, Faculty of Physical Education, University of Mansoura

Hussein, A., 1986, The effect of some suggested kinesthetic perception exercises on the performance level in Gymnastics. Ph.D. Thesis, Faculty of Physical Education for Boys, Helwan University, Cairo, Egypt, pp. 22 (In Arabic).

Magdy, R., 2007, The effect of training some sense of capacity - mobility on the efficiency of the nervous system and the digital level of players diving, Journal of theories and applications of Science in Physical Education Sports, Physical Education Boys, Alexandria University Issue (6)

Mona, M., 1998, The effect of a proposed program for the development of some components of cognitive sense - kinesthetic on performance Spaana level crawled Ali abdomen and back, PhD, University of Almonofiyah.

Van Dahlen, 1990, Research Curriculum in Education and Psychology, Translated to Arabic by NawfalElsheikh and Gabriel. Anglo Egyptian Library, fourth edition, Cairo, pp. 76.

Wael, M., 2002, The study of the development of some physical and motor abilities and its relationship with some sense of dynamic aspects of the junior swimmers, Master Thesis, Faculty of Physical Education for Boys, Alexandria University.

Weinberg, R., 1998, The mental advantage, developing your psychological, skills untennis,lei sure press,.champaiya, Illinois

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 122-125
Original article

YOUNG SPORTSMEN BETWEEN MOTIVATION AND INFLUENCE

MURESAN ALEXANDRU[1]

Abstract

Purpose. The study proposes to catch the influence of certain social circles upon the decision of young people to practice sports in the context of own motivations and interests.

Method. The method that was used consists in a sociological inquiry through questionnaires. For the statistical analysis, the data were recorded and processed with the aid of the SPSS program. Univariate analysis for frequencies and percentage analysis for answers were applied.

Results. The influent circle upon Practicing Sports is friends. Family, Physical Education teachers, media and health institutions neglect to have an effect on youth in this matter.

Conclusions. Under social influences ofeered by the consumer society, the questioned young people matter more for hierarchical aspects of life than for vital ones like health condition and physical comfort.

Keywords: sports market, influences, motivation, social trend

Introduction

Sedentary life dependent on electronic games, world wide web and many other comfortable issues, consists an ever growing problem for people's health condition. Sports, as a healthy alternative of concern, polarizes between performance sports and playful activities. In this context, people's demands and necessities, participants' motivation and qualities, school's schedule for Physical Education and Sport should be linked to sports proposal.

Connecting individual qualities and expectations to sports market proposal, regarded through social paradigm and theories, has the task to offer new perspectives and points of view to the deciders in the world of sports and education.

The globalization of the consumer society induces democratization in sports and other cultural aspects through more and more commercialized occurences and representations (Horne, 2006). Consuming becomes a basic economic activity of the human society though there are authors who claim that the manner in which people purchase goods is not natural (Bocock, 1992).

Face to face communication, through silent messages or through mass-media leads to what it is called symbolic interaction of the factors in the market and has the role to influence each other (Smith, citing Mead, 1974).

Supply and demand are primarily known through mass-media. Young people's choices and decisions regarding sports are within a very flexible reference frame formed by education and socialization in connection to the trends in the consumer society.

In this context, Coenen-Hunter (2007) considers that groups that appeared at the fringes of traditional organizations and associations sensed the benefit they could gain from advertisement in mass-media on condition that their activities will get a spectacular aspect, while Boudon and Bourricaud (1982) point out the reversal of traditional values by the media too.

Sports consumers as practitioners in various ways express certain needs based on specific motivation (Crăciun, 1012) within market's influences.

Researchers in this area approached sports themes from the symbolic and playful point of view (Beaton and assistants, 2011) of preventing obesity and sedentariness through common sports programs (Rowe and assistants, 2013), of the role of sports in developing competitiveness, of abilities and expressivity of the students in anticipation of practicing various disciplines in sports (Franken and assistants, 1994).

This study proposes to reveal ways to influence young people in their choice on the sports market, through individual-structure theory.

The objectives are directed to reveal the influence of the family, of Physical Education and Sport teachers, of physicians and of mass-media upon sample's members and their desires, expectations and areas of interest. The social context consists of the contemporary trends promoted by the proximal or remote social environment and the individual that interact socially in this ambient.

Sports market comprises prices for clothes and equipment, sport newspapers and magazines, tickets for games, shows, demonstrations and expenses for travels, accommodation, training, sport activities, fitness, recovery and medical treatment.

Sport expenditure reveals the level of market and industry development and measures also the life

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standard and health condition.

Article I. Purpose

Perceiving the attitude of 15 – 25 years of age people in Cluj –Napoca for physical practicing motivation, named generally sports in the existing conditions of the sports market.

Article II.Subjects

The subjects of the research are 15 to 25 years old pupils and students in the urban area.

The sample was selected by a simple random method considering the following aspects: age between 15 and 25; pupils or students; practicing sport at least once a week.

Article III. Methods

Article IV. The method was the sociological inquiry through questionnaires.

The questionnaire regarding the influence of the social environment on young people's decisions pursued the following aspects: the level at which young people get to be influenced in deciding about sport practicing by the family, by the Physical Education teacher, by friends and by mass-media. The questionnaire regarding young people's motivation for physical activity in the current social context regarded youth's perception on the benefits of Practicing Sports by: integration in the social trend; health condition; social acknowledgement; domination; recreation; prestige; corporality; fitness; hobby.

The location of the inquiry through operators was the high schools or the colleges where the young people study, the streets, the parks or other places. Questionnaires were also applied on the web to acquaintances that practice sports foe leisure. Approval was asked for subjects' comfort and they were assured of confidentiality; the interviewers introduced themselves and proved their good will.

The answers were ciphered, recorded on a five-level scale and rendered with the SPSS program.

Results

An univariate analysis of frequencies was acquired.

Family's Influence on Practicing Sports

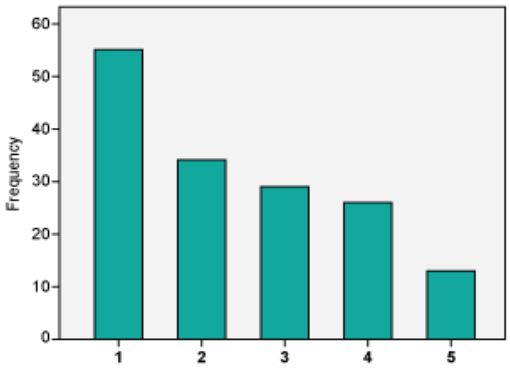

Chart nr. 1

Legend

1 = very low; **2** = low; **3** = so and so;
4 = high; **5** = very high.

The first two bars reveal that 88 of the respondents claim that family doesn't involve when deciding about practicing sports.

The third bar shows that 30 of the respondents' families don't take conclusive decisions.

The last two bars reveal 40 affirmative answers in family's influence on practicing sports by young people.

Level 1 represents the highest degree of disengagement for the reference group on young people's decision of practicing sports.

Level 5 represents the lowest degree of disengagement for the reference group on young people's decision of practicing sports.

Physical Education Teacher's Influence on Practicing Sports

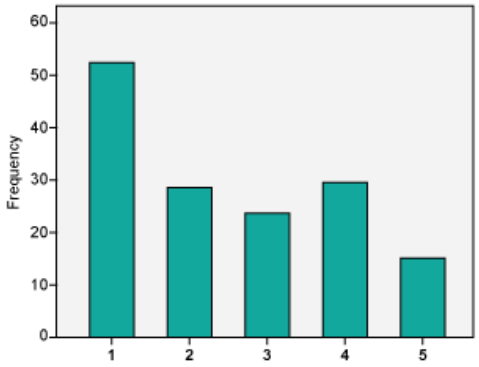

Chart nr. 2

The first two bars of chart nr. 2 represent 85 answers and show that the Physical Education and Sport teacher has a low influence on practicing sports by pupils and students. The chart reveals 30 neutral answers at the third bar and there are 45 answers that acknowledge a high influence of the expert in practicing sports.

Friends' Influence on Practicing Sports

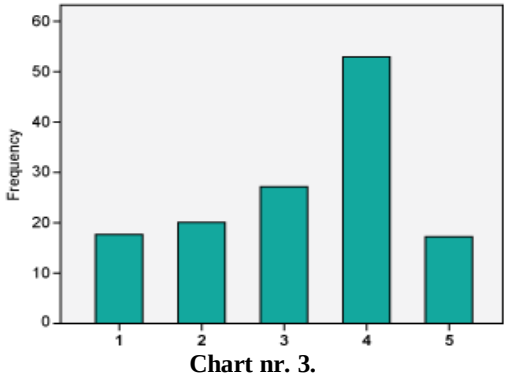

Chart nr. 3.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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Friends' influence on practicing sports is represented by 80 affirmative, 42 negative and 30 neutral answers for influence. It is to emphasize the record-breaking of 80 affirmative answers by which friends affect each other in practicing sports and 42 relative disinterested attitudes. There are also 30 indecisive so and so answers.

Answers about physicians' and mass-media's attitudes on the sample's members were also recorded. These categories don't affect youth in physical activity but in a low degree.

The Motivation for Practicing Sports Linked to Marketing in Sports. The Social Context.

Motivation in a social context states the respondents' perceptions about social trends and their will to adjust to the expectations of those close to them.

The answers were recorded in percents and represented in chart nr. 4.

- Social trend ..... 16%.
  Versions: that's how others do; it's in; I don't want to be dissimilar.
- Prestige ..... 14%.
  financial gain; other material benefits; chances.
- Sănătate..... 11%.
  diabetes; obesity; sedentariness; potentiality; force; resistance.
- Corporality ..... 11%.
  musculature; physical aspect; corporal attitude; expressivity.
- Social acknowledgment .. 10%.

  reputation; performance; popularity; respect; appreciation; resources.
- Domination..... 10%.
  Power; win-winner; leader; example; security; self-confidence.
- Recreation ..... 9%.
  pleasure of playing; pleasure for a moderate physical effort; friends.
- Fitness..... 8%.
  wellbeing; energy; lively; cheerful.
  Stare de bine; energic; vioi; bine dispus.
- Exposure ..... 8%.
  presence in the media; various opportunities; popularity; image.
- Hobby..... 2%.
  interest; leisure; emulation state.

The trends in the sports consumer society are symbolically expressed. Young people are concerned with corporality and prestige as means of communication and a status on the socialscale.

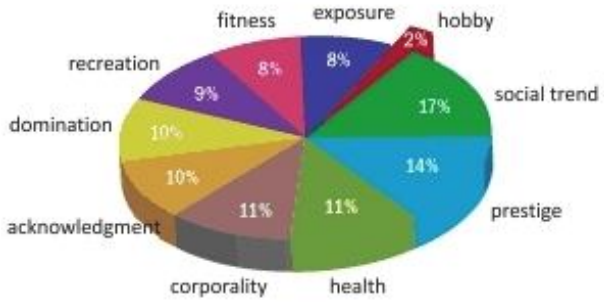

Chart nr. 4

Recreation and hobby represent only 11% of the total.

Social acknowledgement with 10% includes reputation; performance; popularity; respect; appreciation.

The consideration for the symbolic aspects of the behavior is shown through adhering to the social trend.

Concern for health – 11% and fitness – 8% covers 19% in all.

Debates

Researches on similar subjects reveal the double motivation of the sports consumption based on social trend and its activation. With no target, there is no motivation for consumption. Residents that have different personalities, get different consumption motivations (Xianliang, Hongying, 2012).

The questions 'Who am I?'; 'What do I want to be?'; 'What could I be?' were the cause of a research regarding the individual personality and some of its properties as revealed within a sample of voluntary students through physical practice. The self-involvement in agreed programs recorded spectacular results regarding self-knowledge, self-confidence, the will to compete, spontaneity, self-limits active corporal mass, general knowledge about one's self (Ganciu, 2013).

The present research study the effects as perceived by the accessed sample in permanent action and reaction between supply and demand on the sports market after more then two decades since the transition from centralized to liberal economy. Buyer's taste and consumption are built within fashion, within the social trend.

Health condition and wellbeing had a more profound, vital motivation.

The research revealed sports' consumers nuances of motivations and attitudes. The five social categories, friends, family Physical Education and Sports teachers,

physicians and mass-media have different capacities of influencing the questioned people.

Social trends, expansive consumption on the sports market are represented by answers frequency and express the character of the urban interviewed sample, with no regard for social gender, income, culture, traditions, etc.

Young people are focused on social status more than on the slogan 'mens sana in corpore sano'.

Private media in sports and the public one don't grow such attitudes and concerns. The myth of the virtuous was forgotten.

The selection of the information in sports and physical activity is based on economical aspects more than educative ones.

Health organizations represented by medical staff is not distinguished by actions that will encourage activity for health. Individual actions of certain physicians to promote the active style of life are not perceived by young people of 15 to 25 years old but at a small extent, without enabling a social trend.

Parents' and teachers' reserve in cultivating a healthy activity is to be remarked. Financial motives, lack of time or other similar reasons lead to alarming situations concerning obvious obesity. The educational and health systems are to provide assistance to communities while youth's and adults' education are meant to offer information on the ways to claim them.

The results in sports of the national teams are also in regress. If, since not long ago, the selection of the sportsmen enjoyed a large basis of children that were able to surpass their condition through benefits that performance sports provided, the present study reveal a low interest of the young people and, indirectly, of their families for competitions.

The age of adolescence and early youth prove the potential of friends' influence and solidarity compared to other generations. These affect each other when involving in sports at a high degree.

It is to be remarked a low level of sports media's acknowledgment in the promotion of its own activity. Media's role is no longer propagandistic but it acts as an active player on the consumer market.

The analysis of the motivation for practicing sports reveals interviewed young people's interest in resources and dominant social status. For some of them, sports is a mean of achievement. This is shown by the interest in corporality, financial success, social acknowledgement, prestige, etc.

Health condition through the means of sports doesn't represent such a great value for this sample. The reasons will become another research subject among young people, the future adults and elders.

Conclusions

Sports consumer society is not a unitary one.

Family and Physical Education and Sport teachers neglect to influence young people in practicing sports.

The reasons may base a new research.

Professional sports miss coherent programs on middle and long terms that will provide selection basis as well as a symbolic frame.

The interest for sports is shaped by the social context in which young people live.

The interest for their own pleasure and joy that recreation sports and hobbies provide is less appreciated.

Sports as physical activity keep indirectly its initial meaning as a wellbeing and health condition provider, becoming also an expression of the social hierarchies within a globalized consumer society.

Bibliography

Beaton, A,A., Funk, D, C. Ridinger, L., Jordan, J., 2011, Sport involvement: A Conceptual and Empirical Analysis, Sport Management Review, Volume 14, Issue 2, May 2011, p. 126-140.

Bocock, R., 1992, Consumption and Lifestyles in Bocock, R and Thomson, K (ed.), Social and Cultural Forms of Modernity. Milton Keynes: Open University Press and Cambridge: Polity Press, p. 121.

Boudon, R., şi Bourricaud, F., 1982, Dictionnaire critique de la sociologie, PUF, Paris, p. 215.

Crăciun, M., 2012, Sport Psychology For Trainers (Psihologia sportului pentru antrenori), Cluj-Napoca, Risoprint Publishing, p. 185; 209.

Franken, R.E., Hill, R., Kierstead, J., 1994, Sport Interest As Predicted by the Personality Measures of Competitiveness; Mastery, Instrumentality, Expressivity and Sensation Seeking, Personality and Individual Differences, Volume 17, Issue 4, October, p. 467-476.

Ganciu, M., 2013, The Practice of Aerobic Dance in Physical Education Lesson - A Way to Optimize Self-Consciousness Among Young, Papirex, Indian Journal of Research, Volume 2, Issue 12, Dec 2013, p. 198-201.

Horne, J., 2006, Sport in Consumer Society, London, Palgrave, p.7.

Hunter, J, C., 2007, Sociology of Elites (Sociologia elitelor), Iaşi, Polirom Publishing, p.125.

Rowe, K., Shilbury,D., Ferkins,L., Hinckson, E., 2013, Sport Development and Physical Activity Promotion: An Integrated Model to Enhance Collaboration and Understanding, Sport Management Review, Volume 16, Issue 3, August, p. 364-377.

Smith, E., 2009, Sociology of Sport and Social Theory, Human Kinetics, Champaign, Il, p.197-199.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 126-130
Original article

THE EFFECTS OF SQUARE – STEPPING EXERCISES ON COGNITIVE SKILLSFOR KINDERGARTEN AGE CHILDREN

NADA RAMAH[1]

Abstract

Purpose. Physical activity in kindergarten is a fundamental part of the child's educational process. Body experience and physical activity contribute to encouraging the acquisition of physically active lifestyles. Recent scientific evidence has confirmed the role of physical activity in disease prevention and quality of life improvement. A key priority of scientific research is to identify the opportunities and methods of motor learning and to increase the daily physical activity levels of children by reducing sedentary time and promoting active play. The aim of this study was to explore the effects of square – stepping exercises on cognitive skills in kindergarten age children.

Methods. The sample was comprised of 28 kindergarten age children [age, 5.76 ± 0.23 years; height, 122.88 ± 6.08 cm; weight, 28.12 ± 7.19 kg; (mean ± SD)] .Who all members in kindergarten class in Mansoura state (2012). The subjects divided into two groups. The experimental group (n= 18) participated in square – stepping exercises. Three-times weekly. To eight weeks. The control group (n= 10) participated in the traditional program only. All of the participants completed the cognitive skills tests..

Results. The data revealed that significant differences between two groups in the cognitive skills of the experimental group.

Conclusions. Finally, the findings indicated that the implication of this research for teachers working with square – stepping exercises are that to match the child's preferences.These results have to be taken into account by teachers in order to better understand and implicated of these concepts in movement education lessons.

Keywords: square – stepping, cognitive skills, kindergarten.

Introduction

Kindergarten has changed radically in the last two decades. Children now spend far more time being taught and tested on literacy and math skills than they do learning through play and exploration, exercising their bodies, and using their imaginations. Many kindergartens use highly prescriptive curricula geared to new state standards and linked to standardized tests. In an increasing number of kindergartens, teachers must follow scripts from which they may not deviate. These practices, which are not well grounded in research, violate long-established principles of child development and good teaching. It is increasingly clear that they are compromising both children's health and their long-term prospects for success in school.(Edwards, Raikes, 2002)

Play is essential for all children's healthy development and learning across all ages, domains, and cultures. The play does the following:

- Enables children to make sense of their world
- Develops social and cultural understandings
- Allows children to express their thoughts and feelings
- Fosters flexible and divergent thinking
- Provides opportunities to meet and solve real problems
- Develops language and literacy skills and concepts (Bredekamp, Copple, 1997; Gronlund, 2001)

Kindergarten represent the initial stage of education is characterized by gentle treatment of childhood and directed, as they create, through good early upbringing, the child to receive the following roles to life on a sound basis. The goal of maintaining kindergartens encroachment care and development of the child moral and mental and physical in normal conditions along the family atmosphere and in accordance with the requirements of the Islamic religion. The goal of kindergarten to train the child on motor skills, and practice the correct habits, breeding senses and training to use it, and encourage innovative child activity, and pledged his aesthetic taste, and provide an opportunity for vitality and realize .(Derryberry, Rothbart, 1997)

The kindergarten targeted educational stage no less important than other educational stages as they stage a distinct educational and stand-alone educational philosophy and behavioral objectives and educational psychological and instruction of their own.

It is based targets kindergarten to respect the self-children and their individuality and stimulate their thinking creative independent and encourage them to change, without fear, and care of children physically and familiarize good health habits and help them to live, work and play with others and savor the music, art and the beauty of nature and get them used to sacrifice some of their desires in order to benefit the community.

Kinetic and education as an educational concept in achieving its objectives based on the

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principle of drafting procedural behavioral soft way in the management of the educational process, where you will be able to identify the parameter various renderings of her children through pre-defined criteria.

The child learns in kindergarten through his mental basic principles that will help him to build character and adapt to society, such as the acquisition of good habits, and decision-making, choosing friends, and acquire good values, skills and expertise, and broadening understanding and so on of the things that will help him to refine his character and readiness to enter primary school, kindergarten programs are offered usually thoughtfully under the framework of a specific educational attractions, this course helps build a person's character and can of social harmony, and prepared to become a good citizen. (Afaf, 2010)

In addition to the kindergarten create the appropriate environment for the child to explore his environment and the environment in which live the middle by providing tools and hardware, toys appropriate discovers from behind, his environment and the environment in which they live, and through the use of these devices and tools will undoubtedly has the skills many through experimentation and try, Of course, this will increase the confidence and ability to innovation and experimentation, and provide a kindergarten field of coexistence with others by playing teamwork, and put inside him the spirit of cooperation and solidarity and respect for the property of others, and respect for others, and use of time, in addition to other skills acquired from kindergarten such as nutrition good and hygiene and commitment to the system, and the ability to self-reliance, self-control, and the possibility of express what he feels the child from the pain and hopes and feelings and the ability to speak boldly and freedom and without restrictions.

All of these things combined should be instrumental in building an individual's personality and ability to estimate itself through social adjustment, defying modern developments and the complexity of relationships and the multiplicity of activities in time become the dominant technology is dominant.

In sum, the kindergarten in the Arab world in general, Egypt, especially those still in the role of evolution: It is therefore necessary to intensify efforts and re-examine this main pillar of the pillars of Education, which is a cornerstone in the preparation of a good citizen, and refine aspects of his personality and qualifying for the completion of phases The study that follows the kindergarten stage, the first core and the task that deserves continued support, and follow-up of permanent, you need to careful management, and a high degree of expertise and training, in addition to general culture, and great care to prepare the child prepared to ensure it is to be a good citizen

It is noticeable in the curriculum of kindergartens lack of curriculum and national fixed and definite Educational kinetic or physical despite the presence of 3 servings or weekly intervals dedicated to this aspect motor, but there are local programs based on a range of activities each kindergarten preparing them as it deems appropriate and in accordance to the ability which may lead to uneven capacity of children and do not achieve the requirements of growth and development. There is also a discrepancy between the lists of parameters on these programs from kindergarten to another one in kindergarten, in terms of rehabilitation and training, and appropriate academic preparation for the implementation of such programs . (Stuss, Alexander, 2005).

As studies have shown again the importance of the development aspects of the motor for the child and returns on other aspects of the development of his personality and the launch of its potential and contribute to strengthening the areas of his life cognitive It is noticeable in the curriculum of kindergartens lack of curriculum Educational kinetic or physical despite the existence of quotas or weekly intervals dedicated to the development of this aspect locomotors , but there are local programs based on a range of activities based kinetic all kindergarten preparations have as it deems appropriate and in accordance with its potential, which may lead to uneven capacity of children and do not achieve the requirements of growth and development. There is also a discrepancy between the lists of parameters on these programs from kindergarten to another one in kindergarten, in terms of rehabilitation and training, and appropriate academic preparation for the implementation of such programs.

Social play and peer interaction provide a framework for children to explore their physical and social environments. Conversely, lack of social interaction during childhood has been associated with a variety of social and emotional difficulties including behavior problems, peer rejection, depression, and low self-esteem. (Isenberg, Quisenberry, 2002)

The Square Stepping Exercise or SSE is a low-cost indoor program to improve fitness of the lower extremities developed through the collaborative efforts of researchers in sports medicine, physiology and gerontology from several national universities. It is an exercise method based on solid scientific evidence and its applications include the improvement of mobility in the elderly, enhancement of physical fitness in children, conditioning for athletes and the prevention of lifestyle-related diseases.

Square-stepping Exercise (SSE) is a novel form of exercise and comprises various stepping actions. SSE requires participants to remember step patterns demonstrated by an instructor. Further, the SSE program has 200 stepping patterns, which are organized by the complexity involved in stepping actions. After participants master a pattern, the instructor presents more complex patterns. (Rubinstein, 2006)

Featuring simple square stepping exercises where she is a vertical bar width 1 m numbered from

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
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one to four, and there are three levels of it (mild, moderate Advanced

Although, the Square-stepping Exercise (SSE) is very simple exercise and the kindergarten children can practice it , no articles investigated it in the kindergarten , and all articles focused on older persons only, Hence, the purpose of this study was to explore the effects of square – stepping exercises on Cognitive skills For kindergarten age children.

Material and Methods

Experimental Approach to the Problem

Two groups (experimental and control), performed a pre and post training designed intervention in which Primary Test of Cognitive Skills (PTCS). The experimental group practiced 30 minutes per day 5 times a week on the Square-stepping Exercise for eight weeks. The control group continued their normal daily live in kindergarten, while the experimental group completed a Square-stepping Exercise program to see whether this type of exercise modality would have a positive or negative or no effect on Primary Test of Cognitive Skills (PTCS).

Participants. The sample was comprised of 28 kindergarten age children [age, 5.76 ± 0.23 years; height, 122.88 ± 6.08 cm; weight, 28.12 ± 7.19 kg; (mean ± SD)] .Who all members in kindergarten class in Mansoura state (2012). The subjects divided into two groups. The experimental group (n= 18) participated in square – stepping exercises. Three - times weekly. To eight weeks. The control group (n= 10) participated in the traditional program only. All of the participants completed the cognitive skills tests.

Instrumentation

Primary Test of Cognitive Skills (PTCS)

The PTCS measures memory, verbal, spatial, and conceptual abilities. According to Public Law 94-142 (PL 94-142), a discrepancy between ability and achievement can be used as evidence of a learning disability. PTCS can be used with the California Achievement Tests®, Form E (CAT E) or with the Comprehensive Tests of Basic Skills, Fourth Edition (CTBS®/4; 1996) to obtain anticipated achievement information in order to screen for learning disabilities. In addition, as an ability measure, it is useful in screening for giftedness, for evidence of developmental delay, or for planning for the instructional needs of young children (Huttenlocher, Levine, 1990).

The PTCS has four scales.

Spatial. Abilities assessed include sequencing and spatial integration. Spatial relationships are tested in the form of sequences or patterns of shapes, and shape transformations.

Memory. Abilities assessed include recall of information presented in both spatial and associative formats.

Concepts. Spatial and category concepts are tested in the form of categorical and geometric relationships.

Verbal. Skills assessed include object naming and syntax comprehension.

Square – stepping exercises Protocol

The 8-week in-season training program consisted of three axes.

1. Simple
2. Mild
3. Advanced

Statistical Analysis

All statistical analyses were calculated by the SPSS statistical package. The results are reported as means and standard deviations (SD). Differences between two groups were reported as mean difference ± 95% confidence intervals (mean difference ± 95% CI). Student's t-test for independent samples was used to determine the differences in parameters between the two groups. The $p<0.05$ was considered as statistically significant.

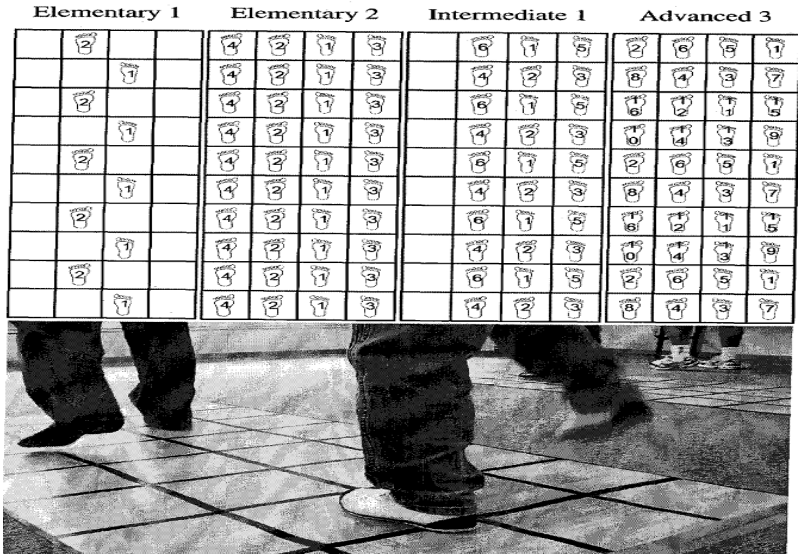

Fig 1 explain the square – stepping exercises (S. Ryosuke, et al. 2008)

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
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Results

Table 1. Age and anthropometric characteristics of the group (mean ± SD).

Variables	N	Age [years]	Weight [kg]	Height [cm]
	17	**5.76 ± 0.23**	**28.12 ± 7.19**	**122.88 ± 6.08**

Table 1 shows the age and anthropometric characteristics of the subjects. No significant differences were observed for the subjects.

Table 2. Primary Test of Cognitive Skills (PTCS) Scores for two groups

Variables	Control			Experimental			T sign between groups
	Pre	Post	T sign	Pre	Post	T sign	
Spatial	5.15 ± 0.19	5.19± 0.22	Not sign	5.19 ± 0.16	6.71 ± 0.32	Sign	Sign
Memory	5.39 ± 0.12	6.42 ± 0.14	Not sign	5.33 ± 0.17	6.63 ± 0.44	Sign	Sign
Concepts	6.01 ± 0.22	6.07 ± 0.26	Not sign	5.08 ± 0.11	6.68± 0.51	Sign	Sign
Verbal	6.66 ± 0.55	7.23 ± 0.76	Not sign	6.59 ± 0.59	7.23 ± 0.27	Sign	Sign

Data in Table 2 shows that there is a significant difference in overall Primary Test of Cognitive Skills between the pre- and post-training.

Discussion

The results of this study showed that the experimental group higher scores than the control group in Cognitive Skills. These results were revealed that Square Stepping Exercise effectively.

Play is how children begin to understand their world. Children develop socialization skills by playing with other children. Play helps children learn to solve problems and to develop the critical thinking skills necessary to ask questions and figure out how things work. Through these activities children continue to strengthen their language development.

The many studies showed a range of educational facts or opinions that emphasizes the importance of childhood in human life, and its impact on the rest of the stages of life, and therefore important to take care of it and which is available from educational activities and experiences in various aspects. The stages of growth experienced by the child is an extension of each other, as demonstrated by these studies link the behavior of adults and their actions childhood experiences and returns many of the personality traits for pre-school.

A child is considered in the modern curriculum is central to all the activities they call him always to activities of self, and develop the element of experimentation and trial-and-discovery, and encourages him to play free, and rejects the principle of compulsion and coercion but rather focuses on the principle of flexibility, creativity and innovation, inclusiveness, and all this requires the existence of educational system is based on The latest What prompted by the results of educational research in the areas of education, sports, psychology, and other fields; where kinetic Education depends on the kinetic potential of natural fungal available through the child's body and called the basic movement.

Developmental research suggests that working memory and attention control undergo rapid development during the preschool years, and have a substantial impact on children's developing "approaches to learning" and corresponding academic achievement (Blair, 2006; Diamond, et al. 2007).). Much of this research has focused on the role that cognitive control capacities, often referred to as executive functions, play in fostering the child's capacity for self-regulated and goal-oriented learning. As a group, executive function skills, including working memory, attention set-shifting and inhibitory control all show substantial development during the preschool years (ages 3-5). Conceptually, these skills enable children to organize their thinking and behavior with increasing flexibility, decrease their reactive responding to contextual cues and contingencies, and engage in self-regulated and rule-governed behavior (Barkley, 2001; Blair, 2006; Blair, Diamond, 2008; Gathercole et al., 2008; Stuss, Alexander, 2005). By promoting children's capacity to inhibit prepotent or impulsive responses and choose alternative responses, these cognitive control capacities enable children to regulate the emotions that motivate and inform their exploration of their physical and social worlds (Derryberry, Rothbart, 1997; Kochanska, et al. 2000). Developmental researchers have postulated that executive function skills, particularly working memory and attention control, thus facilitate school readiness and early learning by supporting behavioral self-regulatory capacities and social competence (Blair, 2002; Hughes, Ensor, 2007), and by fostering children's capacities to engage more effectively with teachers and peers in classroom learning activities (Hamre, Pianta, 2005; Ladd, et al.1999; Gathercole et al., 2008).

The SSE program has multi stepping patterns, which are organized by the complexity involved in

stepping actions. Therefore, children need to remember patterns and to execute the steps quickly and correctly on the basis of their recall. This implies that SSE can improve functional fitness of the lower extremities. (Silsupadol, et al. 2009)

Square Stepping Exercise can be useful to a wide range of people from children to the elderly. Here are just some of the feedback we've received from both beginners who have experienced SSE for the first time and experienced practitioners who have continued the exercise for many years.

Shigematsu et al., 2008 indicated that square stepping exercise is a more useful exercise program than regular walking for older adults; thus, it may serve as a new form of exercise to prevent falls.

Conclusion

The findings of this study indicated that Square Stepping Exercise are related to cognitive skills. Kindergarten teachers working with children need to take these factors into account when preparing for physical education class.

References

Afaf, O.. 2010, Glossary of educational knowledge in curriculum and teaching methods, the world of books, Cairo.

Barkley, R.A., 2001, The EF and self-regulation: An evolutionary neuropsychological perspective. Neuro-psychology Review. 11:1–29.

Blair, C., Diamond, A., 2008, Biological processes in prevention and intervention: Promotion of self-regulation and the prevention of early school failure. Development and Psychopathology.20:899–911.

Blair, C., 2002, School readiness.American Psychologist. 57:111–127.

Blair, C., 2006, How similar are fluid cognition and general intelligence? A developmental Neuroscience perspective on fluid cognition as an aspect of human cognitive ability.Behavioral and Brain Sciences. 29:109–125.

Bredekamp, S., Copple, C., 1997, Developmentally appropriate practice in early childhood programs. Washington, DC: NAEYC.

Derryberry, D., Rothbart, M.K., 1997, Reactive and effortful processes in the organization of temperament. Development and Psychopathology. 9:633–652.

Diamond, A., Barnett, S., Thomas, J. Et al., 2007, Executive function can be improved in preschoolers by regular classroom teachers. Science. 318:1387–1388.

Edwards, C., Raikes, H., 2002, Extending the dance: Relationship-based approaches to infant/toddler care and education. Young Children, 57 (4), 10-17.

Gathercole, S.E., Alloway, T.P., Kirkwood, H.J. et al., 2008, Attentional and executive function behaviours in children with poor working memory. Learning and individual differences. 18:214–223.

Gronlund, G., 2001, Rigorous academics in preschool and kindergarten? Yes! Let me tell you how. Young Children (NAEYC) 56, no. 2: 42-45.

Hamre, B., Pianta, R., 2005, Can instructional and emotional support in the first-grade classroom make a difference for children at risk of school failure? Child Development. 76:949–967.

Hughes, C., Ensor, R., 2007, Executive function and theory of mind: Predictive relations from ages 2 to 4. Developmental Psychology. 43:1447–1459.

Huttenlocher, J., Levine, S.C., 1990, Primary Test of Cognitive Skills: Norms book. Monterey, CA: CTB/McGraw Hill

Isenberg, J.P., Quisenberry, N., 2002, Play: Essential for all children. Childhood Education, 79 (1), 33-39.

Johnson, C., Ironsmith, M., Snow, C. Et al., 2000, Peer acceptance and social adjustment in preschool and kindergarten. Early Childhood Education Journal, 27 (4), 207-212.

Kochanska, G., Murray, K.T., Harlan, E.T., 2000, Effortful control in early childhood: Continuity and change, antecedents, and implications for social development. Developmental Psychology. 36:220–232.

Ladd, G., Birch, S., Buhs, E., 1999, Children's social and scholastic lives in kindergarten: Related spheres of influence? Child Development. 70:1373–1400.

Ryosuke, S., Tomohiro, O., Masaki, N. Et al., 2008, Square – stepping exercises and fall risk factors in older adults: a single blind , randomized controlled trial, journal of gerontology, vol.63, no.1, 76-82

Rubinstein, L.Z., 2006, Fall in older people: epidemiology, risk factors and strategies for prevention. Age and Ageing 2006; 35-S2: ii37–ii41.

Shigematsu, R., Okura, T., Nakagaichi, M. et al., 2008,
Square-Stepping Exercise and Fall Risk Factors in Older Adults: A Single-Blind, Randomized Controlled Trial, Journal of Gerontology, 63A:1, 76-82.

Silsupadol, P. et al., 2009, Effects of single-task versus dual-task training on balance performance in older adults: A double-blind, randomized controlled trial. Archives of Physical Medicine & Rehabilitation, 90, 3, 381–387.

Stuss, D.T., Alexander, M.P., 2005, Does damage to the frontal lobes produce impairment in memory? Current Directions in Psychological Science. 14:84–88.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 131-137
Original article

ANALYSIS OF MOVEMENT EDUCATIONAL PROGRAM FOR STUDENTS OF FACULTIES OF PHYSICAL EDUCATION AND KINDERGARTEN "COMPARATIVE STUDY"

NANA ELDAWY AHMED[1]

Abstract

Purpose. The research aims at analyze movement educational program for students of physical education and kindergartens "comparative study".

Methods. The researcher used the descriptive method because of its relevance to the nature of this research and achieve its questions**.**

Results. The researcher find that the objectives of the curriculum, content and evaluation of movement Education at Faculty of Physical Education are more clear for students and members of the faculty than for students and members of the Faculty of kindergartens

Conclusions. The presence of statistically significant differences between the objectives, content and evaluation of movement education curriculum of the Faculty of Physical Education and kindergartens for the benefit of the movement education curriculum applied at the Faculty of Physical Education.

Key words: Evaluation , Curriculum, Movement Education.

Introduction

The progress of Nations and societies is dependent on its sophisticated knowledge and advanced culture, and the wealth of an educated, capable of human creativity and production, global competition and achieve better rates of human development and positive investment for natural resources, "the aware Nations are strong Nations" that know the educational sector as a whole constituted one of the fundamental pillars in the development of society, at the same time it became necessary to develop it so as to ensure the active participation of the sector in the development of society and the complementary relationship between the educational system and society (Abu Naga, 1996; Ahmed, 1998).

the rapid developments occurring nowadays impose on the educational institutions in many countries in the world viewing the education programs and plans to fit with the requirements of the modern age of those developments and rapid changes (Zakia and Nawal, 2002).

Education aims to build good citizens who contribute to the progress of civilization, a child today is tomorrow's pillar and mainstay of the future and the wealth of the nation and according to the values and ideals all educational institutions must cooperate with children and in developed societies, this stage has got an interest and it has realized great results these societies found that interest with child's movement education produces an active member in the society (Hassan, 2002).

Afaf Osman (2008), Mufti Ebrahim (1998) agree that childhood the most important stages in human life at this stage children capabilities grow their talents become clear and they accept guidance and formation so care with childhood. Activities is the most important influence that contributes to the progress of society.

Amin Anwar (2007) Essam Abdel Khalek (2006) Indicate that education through the movement is the entrance to the educational system based on the child's natural needs to education the child's body is the physical frame though it, he can understand hisself by exercising motor activity that covert the traditional school education to more effective positive methods in the formation and development of children to qualify his potential Abilities and talents.

Simply we can say that the movement is a set of specialized activities addressed under "physical movements" through "physical education courses taught in the faculties of kindergarten curriculum, physical education but those lessons are not restricted to learn movement but movement is the means the proper growth of the child is realized in all of psychological, social, emotional aspects, and mental movement cannot be implemented without the perception of mental (cognitive), And Mel and desire (emotional growth) and not others (social development) as the movement education is a way that raise the motivations and powers of children towards learning (Mona, 2002; Sayre, Gallagher, 2001).

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Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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On this basis, movement education programs are keen on benefits from the cognitive abilities of children that emphasize the positive relationship between these programs and the cognitive and psychomotor development of the child. a movement educational teacher can state certain principles or rules that help him to discover some deficiencies in Children (Mufti, 2002).

Given the importance of the role played by the movement education for childhood, as well as an educational tool at the same time, it has developed an educational system that stems from the concept of movement education for basic movement patterns differ from motor skills for sports the movement education should raise their children motivations towards creativity and innovation and enables the child to move with ease and confidence (Mohamed, 1997).

Kindergarten is a cornerstone in the educational building that States focus for being one of the most appropriate ages for the development of children's motor development and the subsequent educational stages and many scientists devoted this stage as the best educational one due to a combination of biological and psychological characteristics and movement characteristic of children at this stage (Fatima, 2006).

Mohamed Hassan Allawi (2000) said the scientific research conducted to evaluate different aspects in the field of sports, especially relating to educational institutions which includes a large segment of society have of great importance for their development and prepare them as a fundamental pillar for the advancement of society in the future.

The movement education curriculum does not differ from the rest of the other curriculum other where it is built based on the results of recent scientific researches, whether in the field of Physical Education or other scientific fields such as education, where educational foundations are necessary to build a practical and theoretical curriculum (Mohamed, 1995)

In addition, the Ministry of education pay attention to the cultural aspect, especially in the field of physical education and scientific movement applications, in schools, it set curricula for educational movement due to the importance of the cultural aspect of students, enrich the cognitive aspects, as well as a new generation of innovators and creators in all fields (Melnchuk, Nancy 1990).

According to the report of the Committee on the development and modernization of physical education in the United States "as the culture of sports and related aspects to physical education such as education, mobility, is key pillar in the process of development and modernization (Solmon, Lee, 1997).

The movement Education is important in educational stage instruction is, especially in Providing knowledge and scientific principles that grow and diverge at the stage of education later, so it is necessary to increase the interest in this stage, so prepare good educational curricula according to the principles of sound scientific development and the development of the students (Abu Naga, 2000).

As the reform and analysis process is organized and includes all the elements related to the educational process, and contribute to thecollection of information and data about all the related elements, the fields of reform expand to includes all aspects of the educational process (Ahmed, 2004).

Leila Zahran (1999) refers to the reform of movement education curriculum aimed to identify the positive and negative aspects in its all units and it helps teachers to identify what planned tasks has been achieved and to study the effects resulting from some factors and conditions which contribute to the success or failure of achieving the goals.

And then the movement education curriculum becomes more likely than other approaches to changes and improvements so many views and ideas for improving and developing a curriculum help students to keep abreast of developments and equip them with the needed knowledge, skills and experience to become active members of their community and in their own lives**.**

Therefore, the researcher has found it necessary to analyze movement education program for students of physical education, kindergartens and this curriculum is subject to study and research, where the results of this reformation research share in the required development process and advancement of the movement educational plan through finding the best ways and methods to apply the movement education in faculties physical education and kindergartens try to reach the optimal model of teaching education in all faculties

Aim research

The research aims at analyze movement educational program for students of physical education and kindergartens "comparative study" and learn to:-

1. Movement education program applied to the students of the Faculty of physical education.
2. Movement education applied to kindergarten.
3. Comparison of movement educational program applied to the faculties of physical education and kindergartens.

Methods.

1 - students of the Faculty of Physical Education for Girls Helwan University and the number (100) students in addition to (5) of the experts and responsible for the educational process

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
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at the Faculty of Physical Education for Girls, Helwan University.

2 - students of the faculty of kindergarten Fayoum University and the number (100) students in addition to (5) of the experts and the responsible for the educational process at the Faculty of kindergarten Fayoum University.

Research Methodology:

The researcher used the descriptive method because of its relevance to the nature of this research and achieve its questions.

Data collection tools:

The researcher has designed a questionnaire as a tool to collect data according to the following steps:

- Defining the goal of the questionnaire to analyze the content of movement education curriculum for students of the Faculty of Physical Education and kindergartens in the light of Accreditation and Quality proposals

- Access to research and studies on the subject of study for use in determining the content of the questionnaire.
- Identify axes questionnaire and drafting paragraphs for each axis in the initial image.
- Showing the questionnaire (5) experts from members of the Faculty of Physical Education and kindergartens to explore their views on the appropriateness of paragraphs for each axis and the possibility to delete, add or modify some of the paragraphs.

- After taking the views and observations raised by the experts

- amendments have been made to delete some paragraphs to include its final form questionnaire.
- the researcher adopted in the evaluation of the answer two scales, one for students and includes (44) phrases and the second questionnaire for those responsible for teaching and includes (61) phrases .the 2 questionnaire are three gradient is: (Yes), (to some extent), (not) the answers, has been given of the following 3 the standard values, respectively (3, 2, 1)..

The preparation of the final image of the questionnaire:

Some phrases have been reworded and others have been deleted which aren't significant statistically of the phrases and delete phrases statistically based on the opinions of experts and so was reached the final image of the questionnaire for each of who implement the curriculum and students, the questionnaire for responsible for the implementation of the curriculum included the number (61)

phrases divided into four axes as follows: -

"(20) phrases to the axis of goals, (14) phrases to the axis of the content and methods of teaching, (16) phrases to the axis of the possibilities, (11) phrases the axis of the calendar". the questionnaire for students included (44) phrases distributed on four axes as follows:" (12) phrases to the axis of the goals, (9) phrases to the axis of the content and methods of teaching, (14) phrases tothe axis of the possibilities, (9) phrases to the axis of the reform ".

Validity and reliability of the questionnaire under discussion:

First: 1 – validity of students questionnaire: The researchers applied the questionnaire on a sample of 16 female students from the Faculty of Physical Education and kindergartens and outside the research sample in the period from 13/10/2012 to 18/10/2012 and then

Conducted Peripheral comparison between the lower grades spring and spring top students to answer the questionnaire to know the sincerity of peripheral comparison

– stability of questionnaire for students: The researchers applied the questionnaire on a sample of (16) female students from the Faculty of Physical Education and kindergartens and outside the research sample in order to find the value of reliability coefficient questionnaire by using midterm retail method

Second:2-validity of questionnaire for responsible for on the implementation of the curriculum:

The researcher has applied the questionnaire on a sample of (16) members responsible for on the implementation of the curriculum of the research community and outside the research sample in the period from 13/10/2012 to 18/10/2012 AD peripheral then conducted a comparison between the scores of the lower spring and spring top to answer who responsible for on the implementation of the curriculum in questionnaire to know the sincerity of peripheral comparison in the questionnaire form

- the stability of a questionnaire of responsible for on the implementation of the curriculum: The researcher applied the questionnaire on a sample of (16) of the existing implement who the curriculum of the research community and outside the research sample in the period from 20.10.2012 to 25.10.2012, in order to find the value of reliability coefficient of the questionnaire by using midterm retail method

- The application of the questionnaire on a sample:

Questionnaire was applied to a sample search en masse in the period from 4/11/2012 to 23/11/2012 AD in order to reach the data resulting from the application specifically as follows:

- The questionnaire was applied in the Faculty of Physical Education for Girls on the island and the Faculty of kindergarten Fayoum university.

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Results.

Table:1.Significant differences between the estimated degrees to the axis of the goals in both research groups of students Faculty of Physical Education and kindergartens n 1 = n 2 = 100

No. phrase	kindergartens		Physical Education		Value (t)	The level of significance
	Estimated degrees	Percent	Estimated degrees	Percent		
8	260	21.66%	230	19.16%	3.17	Sign.
9	245	20.41%	208	17.33%	3.20	Sign.
7	260	21.66%	191	15.91%	3.65	Sign.
1	270	22.50%	190	15.83%	3.52	Sign.
2	285	23.75%	207	17.25%	2.90	Sign.
5	285	23.75%	208	17.33%	3.25	Sign.
6	265	22.08%	201	16.57%	2.90	Sign.
12	275	22.91%	200	16.60%	3.98	Sign.
3	250	20.83%	193	16.08%	3.32	Sign.
10	255	20.90%	235	19.58%	2.90	Sign.
4	255	20.90%	163	13.58%	3.20	Sign.
11	255	20.90%	218	18.16%	3.54	Sign.
Total	1200	100%	1200	100%	3.21	Sign.

Table (1) the existence of statistically significant differences in the research group of female students specialty Physical Education in the clarity of the goal of the breeding movement education program . the value (t) calculated is greater than the value of (t) Tabulated significance level (0.05) = 1.90.

Table:2.Significant differences between the estimated degrees to the axis of the content in both research groups of students Faculty of Physical Education and kindergartens n 1 = n 2 = 100

No. phrase	kindergartens		Physical Education		Value (t)	The level of significance
	Estimated degrees	Percent	Estimated degrees	Percent		
5	260	28.8%	207	23%	3.20	Sign.
9	265	29.0%	178	19.7%	3.65	Sign.
3	270	29.2%	179	19.8%	4.10	Sign.
7	265	29.0%	172	19.77%	4.36	Sign.
7	260	28.8%	189	21%	4.58	Sign.
2	255	28.7%	201	22.3%	4.65	Sign.
2	250	28.6%	182	9.11%	4.58	Sign.
8	265	29.0%	185	20.5%	3.20	Sign.
6	265	29.0%	147	16.33%	3.65	Sign.
Total	900	100%	900	100%	4.20	Sign.

Table (2) the presence of statistically significant differences in the research group of female students specialty Physical Education in the clarity of the content of the breeding movement education program . the value of (t) calculated is greater than the value of (t) Tabulated significance level (0.05) = 1.90.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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Table l(3) Significant differences between the estimated degrees to the axis of the possibilities in both research groups of students Faculty of Physical Education and kindergartens n 1 = n 2 = 100

No. phrase	kindergartens		Physical Education		Value(t)	The level of significance
	Estimated degrees	Percent	Estimated degrees	Percent		
19	270	10%	215	7.96%	3.20	Sign.
6	260	9.6%	189	7.00%	3.35	Sign.
21	270	10%	172	6.37%	3.65	Sign.
8	265	10%	177	6.55%	3.98	Sign.
14	270	9.8%	203	29%	3.54	Sign.
3	265	10%	174	6.44%	3.65	Sign.
5	235	9.8%	208	7.70%	3.98	Sign.
18	260	8.70%	184	6.81%	3.85	Sign.
13	280	9.60%	178	6.59%	3.68	Sign.
25	275	10.37%	191	7.07%	3.58	Sign.
2	260	10.1%	192	7.10%	3.54	Sign.
11	250	9.6%	210	7.08%	3.98	Sign.
24	265	9.25%	192	6.81%	3.54	Sign.
7	270	9.68%	184	7.59%	3.65	Sign.
Total	1400	100%	1400	100%	3.58	Sign.

Table (3) the presence of statistically significant differences in the research group of female students specialty kindergartens in the level of potential applied to the breeding movement education program the value (t) calculated is greater than the value of (t) Tabulated at the significance level (0.05) = 1.90

Table (4) Significant differences between the estimated degrees calendar axis in both research groups of students Faculty of Physical Education and kindergartens n 1 = n 2 = 10

No. phrase	kindergartens		Physical Education		Value (t)	The level of significance
	Estimated degrees	Percent	Estimated degrees	Percent		
1	260	28.8%	171	19%	3.65	**Sign.**
4	270	30%	170	18.9%	3.98	**Sign.**
5	260	28.8%	183	203%	3.85	**Sign.**
6	265	29.4%	176	19.5%	3.68	**Sign.**
7	260	28.8%	211	23.4%	3.58	**Sign.**
2	270	30%	149	16.5%	3.54	**Sign.**
8	275	30.55%	191	21.2%	.98	**Sign.**
9	265	29.4%	154	17.1%	3.54	**Sign.**
3	265	29.4%	163	18.1%	3.65	**Sign.**
Total	900	100%	900	100	3.65	**Sign.**

Table (4) the presence of statistically significant differences in the research group of female students specialty Physical Education in the level of calendar movement education program the value (t) calculated is greater than the value of (t) Tabulated significance level (0.05) = 1.90.

Discussion.

Referring to the tables (from no.1 to 4), the estimated degrees, the percentages and the value (T) of the views of those who implement the curriculum and the students in kindergartens and Physical Education, and the differences between the results.

We find that the objectives of the curriculum, content and evaluation of movement Education at Faculty of Physical Education are more clear for students and members of the faculty than for students

and members of the Faculty of kindergartens, the researcher assigns this difference between the two faculties to the contrast of the sample of students where the faculty of Physical Education is more experienced than faculty of kindergarten in studying movement education while in terms of the physical capabilities, the faculty of kindergarten is better that due to recent construction and the availability of the necessary budget.

In the context of the general orientations of Education and Higher Education and constant quest to develop, improve and activate the role of cadres in the schools and great keenness for their efforts and guidance and suggestions in order to give graduate teachers the necessary competencies for them and introduce them to the reality of education and how to exploit movement education growth professionally and stand on the difficulties faced by graduates and headmasters and come up with the recommendations for the development of the educational process (Mona, 2002).

Indicate that education through the movement is the entrance to the educational system based on the child's natural needs to education the child's body is the physical frame though it, he can understand hisself by exercising moto activity that covert the traditional school education to more effective positive methods in the formation and development of children to qualify his potential Abilities and talents (Amin and Usama, 2007; Essam, 2006).

Conclusions

In the range of objectives, questions and sample and through statistical treatments of the data, the researcher concluded the following:

- The objectives, content and evaluation of the curriculum of movement education at Faculty of Physical Education worded in a clear manner and according to the opinion of students and faculty members except axis of capabilities, it is not clear..
- The objectives, content and evaluation of curriculum of movement education at Faculty of kindergarten aren't worded in a clear manner and in accordance with the opinion of students and faculty members except axis of capabilities, it is clear.
- The presence of statistically significant differences between the objectives, content and evaluation of movement education curriculum of the Faculty of Physical Education and kindergartens for the benefit of the movement education curriculum applied at the Faculty of Physical Education.
- Outweigh of the capabilities for applying the movement education curriculum at the Faculty of kindergarten compared to the Faculty of Physical Education.

Recommendations.

In light of the search results, and the conclusions that have been reached, the researcher recommends the following:

- Set an unified strategic plan to apply the movement education curriculum by the members of the Faculty of Physical Education and Faculty of Kindergarten and apply it at schools and both faculties .
- Set a curriculum of movement education to fit with the recent development in this field.
- Hold periodical meetings with the teachers of movement education to know the obstacles of applying the curriculum
- Hold courses and seminars for kindergarten's teachers to inform them the updates in this field.

References

Abu Naga, A.E., 1996: "Evaluation of curriculum for Physical Education Preparatory Stage of the State of Bahrain, curriculum management, Manama, Bahrain**.**

Abu Naga, A.E., 2000: in sport education curriculum (for sounds and disabled)Shagaret El Durr library, Mansoura.

Abu Naga, A.E., 2001: "Physical education teacher" Shagaret El Durr library, Mansoura.

Afaf, O.O., 2008: "Recent trends in movement education" Wafaa House, Alexandria.

Ahmed, A.A., 2002: "impact of movement education program using small recreational toys on some motor variables and satisfaction with the dynamic behavior of children (6-9 years)," Master Thesis, Faculty of Physical Education of the pyramid Bnyen, Helwan University.

Ahmed, I.H., 1998: "Education and the school administration", the Arab Thought House, Cai

Ahmed, M.S., 2004: "Building of evaluation measure for assistants of faculty members at faculties of Physical Education in the Arab Republic of Egypt," unpublished Ph.D. thesis, Faculty of Physical Education, Mansoura University.

Alia, A.I., 2005: "The impact of proposed movement education program on some aspects of growth for children ages (4-6) years," PhD Thesis, Faculty of Physical Education for Girls, Helwan University.

Amin, A. E., Usama, K.R., 2007: "Theories and movement education programs for children" of the Arab Thought House, Cairo.

Essam, A., 2006: "Movement Education for students

of the Faculty of Education and kindergarten", Arab Books Arab library, Alexandria.

Fatima, A.S., 2006: "Movement Education and its applications," " Wafaa House, Alexandria.

Gallahue, D., **2006** Developmental physical education for today's elementary school children. Macmillan Pub. Com. New York..

Hani, M.F., 2003: "The impact of a proposed educational program on some components of the movement education for primary school students," Master Thesis, Faculty of Physical Education, Mansoura University.

Hani, M.F., 2007: "The Impact of movement Education program on cognitive motor efficiency and creative thinking for pre-school children" PhD Thesis, Faculty of Physical Education, Mansoura University.

Hassan, E.A., 2002: "the basics of teaching movement and physical education", technical Eshaa Press, Alexandria.

Hatem, M.I., 2005: "impact of movement education program on the development of some variables harmonic behavior of the mentally handicapped, Master Thesis, Faculty of Physical Education, Mansoura University, 2005.

Huda, N.M., 2001: "The impact of movement education classes on academic achievement for pre-school children," Master Thesis, Faculty of Physical Education for Girls on the island, Helwan University

Ibrahim, M.I, 2005: "The impact of movement education program on the development of self-concept for primary school pupils (6-9) years," Master Thesis, Faculty of Physical Education, Mansoura University.

Melnchuk, N., 1990: toward understanding the liver world of physical education teacher in curriculum implementation, PhD university of Alberta Canada.

Mervat, S.O., 2001: "The impact of a proposed program for Movement Education for motor skills and some basic skills," Master Thesis, Faculty of Physical Education for girls, Helwan University.

Mohamed, E.M., 1997: "Movement Education" Arab Thought House, Cairo.

Mohamed, F.H., 2003: "The impact of Movement Education program to perform some special motor skills for the deaf and dumb (6-9) years," Master Thesis, Faculty of Physical Education, Mansoura University.

Mohamed, H.A., Mohammed, N.R., 2000: Measurement in physical education and sports psychology, the Arab Thought House, Cairo, 2000.

Mohamed, S.H., 1995: Measurement and Evaluation in Physical Education and Sports, v3, p1, the Arab Thought House, Cairo.

Mona, A.A., 2002: "Movement Education programs to pre-school children," the Anglo-Egyptian Bookshop, Cairo.

Mufti I. H., 1998: "Movement Education and Applications" El Mokhtar for publication and distribution, Cairo.

Mufti, I.H., 2002: "exploration program and solving problems in Movement Education for kindergartens, primary", Book Center for publication, Cairo.

Sayre, N., Gallagher, J., 2001: The young child and the environment, Issues related to health, nutrition, safety, and physical education activity. Ally and Bacon, Boston.

School council, research studies 1994: physical education in secondary schools London Macmillan education, ltd.

Solmon, M.A, Lee, A.M., 1997: Development of an instrument to Assess Cognitive Processes in physical education classes, R.Q. exerc sport

Suad, I., 2001: "The Effectiveness of movement education program in the development of some of the ethical values for the pre-school children," PhD Thesis, Faculty of Physical Education for Girls, Tanta University.

Usama, K.R., 1998: "Movement Education for children:" The Arab Thought House, Cairo.

Zakia, I.K., Nawal I.S., 2002: pedagogy and education systems, v 1, Technical Eshaa Library, Cairo.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 138-142
Original article

THE RELATION BETWEEN WEIGHT, PERCEIVED PHYSICAL COMPETENCE AND BODY IMAGE IN EARLY ADOLESCENCE

NANU EUGENIA CRISTINA[1], BĂBAN ADRIANA[1]

Abstract

*Purpose.*The aim of the present study is to explore the relation between perceived physical competence, body mass index and physical appearance esteem in early adolescence.

*Methods.*A cross-sectional design, comprising 253 early adolescents from 11 to 13 years old (mean age = 12.32, SD = .57) was implemented. Hierarchical multiple regressions were used in order to identify direct and interaction effects.

*Results.*Significant gender differences were found in both physical appearance esteem and contributive factors. The beneficial effect of perceived physical competence on physical appearance esteem is higher for girls compared to boys.

Key Words: appearance esteem, early adolescence, perceived physical competence.

Introduction

Researches document that the way adolescents perceive their physical self and feelings experienced while thinking about own appearance have a significant influence on how they evaluate themselves generally (Smolak, 2004; Ricciardelli& McCabe, 2001). The mental image of own body, appraisals of appearance and associated emotions are concentrated under the construct of body image (Cash &Pruzinsky, 2002).Studies document a significant relation between body image dissatisfaction and eating disoreders (Rumsey & Harcourt, 2005). Negative thoughts and feelings about one's body seem to develop from a very early age and reach their peak in adolescence (McCabe&Ricciardelli, 2001; Smolak, 2004).

One of the biological factors that contribute to satisfaction with physical appearance is the body weight. More specific, studies show that being overweight is a significant predictor of dissatisfaction with overall appearance (Presnell, Bearman&Stice, 2004; Wilson, Tripp & Boland, 2005; Markey, 2010). Also, the underweight status can be a cause of dissatisfaction. Nevertheless, being underweight seems to be a distressful condition only for boys (Presnell et al., 2004). The perception and the subjective evaluation of own weight is influenced by gender, age and sociocultural context. Girls tend to overestimate their weight and express a lower weight satisfaction compared to boys. Studies show that almost a half of the underweight adolescents consider they have a normal weight, while almost half of the normal weight girls would like to decrease their weight (Brener, Eaton, Lowry & McManus, 2004; Tremblay & Limbos, 2009). The most incriminating factor is the sociocultural context that promotes unrealistic images of beauty through mass-media. Experimental studies pointed that a short exposure to images of thin ideal for girls and muscular ideal for boys is sufficient to generate negative attitude toward own body. The effect is stronger in adolescence compared to other developmentalperiods(Groesz, Levine &Murnen, 2001; Grabe, Ward & Hyde, 2008).

While extensive research was conducted to identify risk factors in body image dissatisfaction, only a few studies focused on positive body image and related factors (Cash et al., 2002). Studies regarding gender differences suggest that boys' superiority in levels of satisfaction is related to the social construction of body image across gender. Boys learn to appreciate muscularity and the functional competence of the body (Ricciardelli, McCabe, Holt &Finemore, 2003). On the other side, girls are focused on the aesthetic of the body and invest a lot of resources formanagingappearance (Cash et al., 2002).

Exploring functional and aesthetic body image in adolescence, Abbot and Barber (2011) concluded that involvement in any type of sport was associated with a higher focus on functional body image. Physical activity is recognized to have positive effects on self-esteem (Fox, 2000) and also on body image (Smolak, 2004). Richman and Shaffer (2000) tested a sample of college females on the association between participating in sports on one side and self-esteem and potential mediators such as psychosocial variables, on the other side. They concluded that physical activities favor the development of physical competence, positive body image and gender flexibility, leading to a more positive self-esteem. Children who practice sports experience more situations of exposing their body in front of sport colleagues. Therefore, they might not manifest concerns while revealing their body, especially in a secure environment.

The aim of the present study is to explore the relation between perceived physical competence, social

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Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

acceptance and body image in adolescence. We will focus on appearance esteem, defined as a global evaluation of appearance (Mendelson, White &Mendelson, 1996) because appearance esteem is considered having a relevant contribution to adolescents' global self-concept. In line with previous researches, our hypotheses were that boys will experience higher appearance esteem compared to girls, the relation between body mass index (BMI) and appearance esteem is curvilinear for boys and linear for girls and athletic competences significantly contribute to appearance esteem for both boys and girls.

Participants

The study sample consisted of 253 students (118 boys and 135 girls) ranging from 11 to 13 years old, students from three schools situated in the city area. Based on BMI growth charts cut-off scores (CDC 2000, WHO 2010), 166 participants (64.8%) were classified as having normal weight, 18 (7%) were underweight and 71 (27.7.1%) were overweight. The mean of body mass index was 19.36 (SD=3.51) for girls and 19.71 (SD=3.78) for boys.

Measures

Body Mass Index (BMI)

Body mass index was calculated from the equation (weight in kg)/(height in m^2), using measures taken in collaboration with schools medical assistants. Cut-off scores for children and adolescents (Cole, 2000) were used to identify participants' weight category. In our sample, consisting of 135 girls (mean BMI 19.36, SD 3.51) and 120 boys (BMI, mean = 19.71, SD 3.78), 7% were underweight, 65% had a normal weight, 19% were overweight and 8% were obese.

Body-esteem – Appearance

Attitude toward overall physical appearance was measured with Body Esteem – Appearance subscale of "The Body Esteem Scale for Children" (Mendelson& White, 1996). The subscale consists of 13 statements that address the satisfaction with physical appearance *("I like what I see when I look in the mirror", "There are a lot of things I'd change about my look, if I could"*). Respondents options were 1 (no), 2 (sometimes) or 3 (yes). The authors reported an internal consistency coefficient of $\alpha = .87$. In the present study, observed scores ranged from 18 to 39 and the scale had good internal reliability (Cronbach's $\alpha = .84$).

Physical competence

The perceived physical competence was measured using the *Athletic Competencysubscale* of *Self Perception Profile for Children* (Harter, 1982 apud. Muris, Meesters, Fijen, 2003). The subscale consists in six items. For each item, children have to choose from two opposite statements ("Some children consider they are not good enough in sports" and "Some children consider they are very good in sports") and to decide whether the chosen statement is "sometimes like me" or "exactly like me". Items are scored on a scale from 1 to 4. The author reported an internal consistency of .78 for this subscale. In the present sample, the Cronbach'sα is .79 for athletic competence.

All the scales were translated into Romanian language and back in English using the reverse translation in order to ensure the accuracy of original wording. The research team checked that all items were translated in a correct and meaningful way.

Descriptive statistics

Gender differences in body image and perceived athletic competencies

Independent t tests were run for each studied variable in order to identify specific gender differences. Boys scored significantly higher than girls in appearance esteem ($t = - 3.797$, $df = 249$, $p = .000$) and athletic competencies ($t = - 5.171$, $df = 249$, $p = .000$). Therefore, the following analyses were conducted separately for each gender.

Correlations among BMI, appearance esteem and perceived athletic competencies as well as means and standard deviations are presented in Table 1. The results displayed above the diagonal represent the girls' sample while bellow the diagonal is described the boys' sample.

Table 1. Means, standard deviations and correlations among BMI, appearance and athletic competencies.

Girls				
Boys	**1**	**2**	**3**	**4**
BMI (1)	-	-.321**	-.129	19,38 (3.51)
Appearance esteem (2)	-.194*	-	.227**	27.66 (4.67)
Athletic competencies (3)	-.079	.169	-	16.79 (4.12)
Mean (SD) (4)	19.49(3.42)	29.67(3.73)	19.38 (3.74)	-

Note. ** p< .01, * p < .05. Boys scores– bellow the diagonal. Girls scores – above the diagonal

The relation between BMI and appearance esteem was moderate for girls and small for boys. Specifically, higher levels of BMI were related to lower appearance esteem. Regarding athletic competencies, they correlate with appearance esteem for girls but not for boys.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
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Predictors of attitude toward appearance across gender

Hierarchical multiple regression analyses were run to test for BMI, athletic competencies and their interaction as predictors of appearance esteem separately for boys and girls. For boys, given previous evidence on the quadratic relation between BMI and body esteem (Cash et al., 2002; Presnell et al., 2004), we first tested the quadratic effect. The changes in R^2 were significant when adding the quadratic term (ΔR^2=.03, F (1,115) = 4.56, p = .035). In our sample, the relation between BMI and appearance esteem is a curvilinear relation, such as both low and high BMIs are associated with low appearance esteem. Therefore, for boys, in the following analysis, we used quadratic term for BMI.

For testing interaction effects, in order to avoid multicollinearity, the scores were centred according to Aiken and West (1991) recommendations. The two-way by-products were calculated by multiplying the centred variables. BMI was entered first, followed by athletic competencies and the product term.

The results from the hierarchical multiple regression analyses are presented in Table 2. For girls, the regression model predicted a significant amount of variance in appearance esteem [F(3,133)=8.15, p=.000]. Also the changes in R^2 were significant when adding perceived athletic competence as a predictor. Therefore, while controlling for BMI, perceived athletic competencies significantly contributed to appearance esteem. No evidence of interaction between BMI and athletic competencies was found.

Table 2. Summary of multiple regression for variables predicting physical appearance esteem

		ΔR^2	β	t
Appearance esteem				
	Girls	.15**		
Step 1		.12**		
BMI			-.35	-4.351**
Step 2		.02*		
BMI			-.32	-3.912**
Athletic competencies			.16	2.026*
Step 3		.00		
BMI			-.31	-3.762**
Athletic competencies			.17	2.092*
BMI x Athletic competencies			.08	.987
	Boys	.12*		
Step 1		.07*		
BMI			-.27	-3.04*
Step 2		.02		
BMI			-.26	-2.961*
Athletic competencies			.15	1.712
Step 3		.03*		
BMI			-.28	-3.217*
Athletic competencies			.12	1.404
BMI x Athletic competencies			-.17	-1.94*

Note: *p < .05, **p < .01 BMI – Body mass index (Kg/m²)

Compared to girls, the regression model for boys predicted a lower amount of variance in appearance esteem [F (3,112)=5.471, p=.002]. The changes in R^2 were not significant in the second step. Therefore, athletic competencies did not contribute to an increase in appearance esteem when BMI was controlled. In other words, boys who differed in athletic competencies were not feeling better with their appearance when BMI was controlled. When adding the product term, we obtained a significant R^2 change, proving the presence of an interaction effect between BMI and perceived athletic competencies. As illustrated in Figure 1, the simple slope was significant for boys with high levels of athletic competencies (t=-3.37, p=.001) and middle levels of athletic competencies (t=-3.39, p=.000).

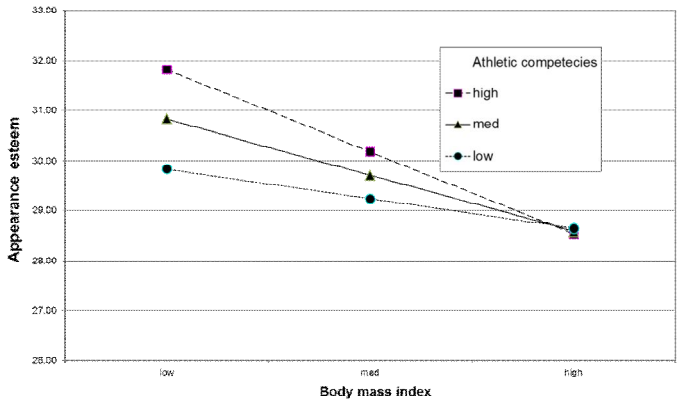

Fig. 1 Interaction effects between BMI and athletic competencies on physical appearance esteem among boys

Discussion

The aim of the article was to examine the relation between body mass index, perceived athletic competencies and physical appearance esteem, in early adolescence. We were interested in gender differences in appearance esteem and the potential predictive value of BMI and perceived athletic competencies, as well as their interaction.

The results are in line with previous findings (Hargreaves &Tiggemann, 2002) confirming that gender differences in physical appearance esteem are already present in early adolescence. If exploring attitude toward physical appearance for each weight category, boys' superiority seems to be related to the fact that their scores are high even if overweight. Boys' lower scores were found in the underweight group. For the girls, both underweight and normal weight registered similar scores in attitude toward appearance, while the scores drop significantly in the overweight group. So, girls have the same positive attitude toward body image if they are underweight or have a normal weight. Being thin is considered normal even at this age. For boys, the attitude toward body image is much more similar across weight categories and both underweight and overweight seem to be rather problematic. The small number of underweight subjects impedes us to draw firm conclusions but the trend of the results is in line with previous studies. For example, Calzo, Sonneville, Haines, Blood, Field and Austin (2011), in an extensive longitudinal study, identified gender as being an important contributive factor in the relation between weight status and body image. For girls, BMI situated above the 50th percentile leaded to higher body image dissatisfaction, while for boys, BMI situated under the 10th percentile and over the 75th had similar effects. In our sample, we found evidence of a linear relation between BMI and appearance esteem for girls and a curvilinear relation for boys, such as small BMI as well as a high BMI are associated with low physical appearance esteem.

Athletic competence proved to be positive contributors to appearance esteem but its pattern of influence differed across gender. For girls, perceived athletic competence explained a significant additional amount of variance, while we controlled for BMI. Therefore, early adolescent girls who consider having high physical competence also express higher appearance esteem when the effect of BMI is eliminated. For boys, no such effect was found. Nevertheless, a significant interaction effect was identified between BMI and athletic competence, with athletic competencies as moderator, such as the relation between weight and appearance esteem is more intense when the athletic competence is high and median compared to low.

In this sample, the beneficial effect of perceived athletic competence on appearance esteem is higher for girls compared to boys. Although previous researches pointed that the superiority of boys in appearance esteem is related to a higher focus on functional body (Cash et al., 2002, Lyu& Gill, 2012), high levels of perceived athletic competence contributed to an increase in girls' appearance esteem. The result is supported by Haugen, Säfvenbom and Ommundsen's (2011) finding that the effect of physical activity on global self-worth, through physical self-esteem, was stronger for females.

Limitations. There are some limitations that should be considered when interpreting these findings. First, we used a cross-sectional design. Therefore, no causal relations can be drawn. In other words, we are not able to establish the direction of the relation between perceived athletic competencies and appearance esteem. Being dissatisfied with own body image could be an obstacle in physical activity involvement, especially for girls. Longitudinal studies could clarify the direction of the relation mentioned above. Also, the sub-representation of the underweight group makes it difficult to draw conclusions regarding how weight status makes a difference.

Conclusions

The purpose of the study was to examine the relation between appearance esteem, BMI and athletic competencies.

Three main important findings can be extracted from this sample. First, gender differences concerning attitude toward appearance are already in place in early adolescence. Second, the relation between BMI and appearance esteem is also different across gender. For boys, both underweight and overweight statuses are related to low appearance esteem. In girls' sample, only high levels of BMI are related to low appearance esteem Third, perceived athletic competency is a protective factor more valuable for girls than for boysAccording toprevious researches, focusing on functional body is a protective factor against body image dissatisfaction and eating disorders (Smolak, Murnen& Ruble, 2000; Abbott et al., 2009). Future longitudinal research to examine how practicing different types of sport contribute to changes in body-esteem might be valuable.

References

Abbott, B. D. & Barber, B. L., 2010, Embodied image: Gender differences in functional and aesthetic body image among Australian adolescents. Body Image, 7, pp. 22-31.

Aiken, L. S., & West, S. G., 1991, Multiple regression: Testing and interpreting interactions. Newbury Park, London, Sage.

Brener, N. D., Eaton, D. K., Lowry, R. & McManus, T., 2004, Weight Perception and BMI among High School Students. Obesity Research, 12, 11, pp. 1866-1875.

Calzo, J.P., Sonneville, K.R., Haines, J. Blood, E.A., Field, A.E. & Austin, B. 2012, The Development of Associations Among Body Mass Index, Body Dissatisfaction, and Weight and Shape Concern. Adolescent Boys and Girls, in Journal of Adolescent Health, 51, pp. 517-523.

Cash, T.F. & Pruzinski, T., 2002, Body image, The Guilford Press.

Fox, K. R., 2000, Self-esteem, self-perception and exercise. International Journal of Sport Psychology, 31, pp. 228-240.

Grabe, S., Hyde, J., Ward, L. 2008, The Role of the Media in Body Image Concerns Among Women: A Meta-Analysis of Experimental and Correlational Studies.Psychologycal Bulletin, 134, 3, pp. 460-476.

Groesz, L. M., Levine, M. P., & Murnen, S. K. 2002, The effect of experimental presentation of thin media images on body satisfaction: A meta-analytic review. International Journal of Eating Disorders, 31, pp. 1–16.

Hargreaves, D. &Tiggemann, M. 2002, The Role of Appearance Schematicity in the Development of Adolescent Body Dissatisfaction. Cognitive Therapy and Research, 26, 6, pp. 691–700.

Haugen, T.,Säfvenbom, R. &Ommundsen, Y., 2011, Physical activity and global self-worth: The role of physical self-esteem and gender. Mental Health and Physical Activity, 4, pp. 49-56.

Lyu, M. & Gill, D. 2012, Perceived physical competence and body image as predictors of perceived peer acceptance in adolescents.Asian Journal of Social Psychology, 15, pp. 37-48.

Markey, C.N., 2010, Invited Commentary: Why Body Image is Important to Adolescent Development.Journal of Youth Adolescence, 39; pp. 1387-1391.

Mendelson, K. M. & White, D. R.,1996, Self-Esteem and Body Esteem: Effects of gender, Age and Weight. Journal of Applied Developmental Psychology, 17, pp. 321-346.

Muris, P., Meesters, C. & Fijen, P.,2003, The Self-Perception Profile for Children: further evidence for its factor structure, reliability and validity. Personality and Individual Differences, 35, pp. 1791-1802.

Ricciardelli, L. A., McCabe, M. P., Holt, K. E. &Finemore, J., 2003, Abiopsychosocial model for understanding body image and body change strategies among children. Applied Developmental Psychology Vol. 24, pp. 475–495.

Ricciardelli, L. A. & McCabe, M. P. 2001, Children's Body Image Concerns and Eating Disturbance: A Review of the Litterature.Clinical Psychology Review, 21, 3, pp. 325-344.

Rumsey, N., 2008, The Psychology of Appearance: Why health psychologists should "do looks". The European Health Psychologist, Vol. 10.

Presnell, K., Bearman, S. K. &Stice, E., 2004, Risk Factors for Body Dissatisfaction in Adolescent Boys and Girls: A Prospective Study. International Journal of Eating Disorders, 36, 4, pp. 389–401.

Richman, E. L. & Shaffer, D. R., 2000, If you let me play sports: How might sport participation influence the self-esteem of adolescent females? Psychology of Women Quarterly, 24, pp. 289-299.

Smolak, L., 2004, Body image in children and adolescents: where do we go from here? Body Image, 1, pp. 15-28.

Smolak, L., Murnen, S.K. & Ruble, A.E. 2000, Female athletes and eating problems: a meta-analysis.International Journal of Eating Disorders, 27(4), pp. 371-380.

Tremblay, L. & Limbos, M., 2009, Body Image Disturbance and Psychopatology in Children: Research Evidence and Implications for Prevention and Treatment. Current Psychiatry Reviews, 5, pp.62-72.

Wilson, J. M. B., Tripp, D. & Boland, F. J.,2005, The relative contributions of subjective and objective measures of body shape and size to body image and disordered eating in women Body Image, 2, pp. 233-247.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 143-148
Original article

EFFECTS OF RELAXATION TRAINING ON MUSCLE TENSION AND THE PERFORMANCE LEVEL OF 50M FRONT CRAWL SWIMMING

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Abstract

Purpose. Relax training attempts to use the athlete's awareness of muscle contraction/relaxation sensations to derive degrees of self-awareness. This method has been successfully used in decreasing anxiety for optimal psychological states of performance and pain tolerance. It is performed by instructing the athlete to contract then relax specific muscles in a definite order. The aim of the study was to investigate Effects of relaxing training on Muscle Tension and the performance level of 100m front crawl swimming.

Methods. Six female swimmers from the university swimming team, All participants completed (3) questionnaires to assess health history, muscle tension levels and attention concentration. And identify the record of 50m front crawl swimming before and after eight weeks of relaxation training (three times weekly).

Results. Statistical analyses showed that a significant decreasing in muscle tension levels and attention concentration after the relaxing program. And no significant differences in performance level of the 50m front crawl swimming.

*Conclusions.*The relax training practice was the improvement of muscle tension levels and attention concentration without improvement in the performance level of 50m front crawl swimming

Key words: Relaxing Training, Muscle Tension, Crawl Swimming

Introduction

Supports access the swimmers to reach higher levels and achieve success on scientific grounds is in the ways of setting, whether prepared physically or psychologically or mentally, and require swimming use of the mind to deal with the aqueous medium and air conditioning with him would need to understand and accommodate each movement so that their performance accurately and mastery requires full compatibility between the two muscular and nervous system, as well as the use of certain mental abilities and psychological preparation until it is a sense of movement and focus on them and raise the efficiency of its performance.

This leads to the development of performance and often produces numerous errors in performance due to the low concentration of attention, tension, and anxiety, which leads to rushing performance in the belief that this serves skill.

Mohamed (2002) believes that a relaxation exercises variables that help to reduce muscle tension and anger controls that contributes in the face of stress or interview a high level of stress types and focus attention and are therefore more important and necessary.

The relaxation main entrance to reach the optimum level of arousal to enable good performance, especially in competitive situations, and occupies training relax especially within the training programs at senior levels, and it became fashionable to include training programs for high-level special program to teach and develop the ability of sports to relax.(Mohamed, 1995)

To obtain a high degree of relaxation, it is imperative that the individual is constantly training on the relaxation process where it's difficult skill require much training and a long time so that he can use and benefit from. Mohamed, (1998)

Osama, Mohamed (1992) pointed out the importance of training relax the swimmer as that before special importance within the training program for him, so as to develop its ability to govern and control of the members of the body to prevent tension or mitigated, thereby Say it a positive impact on the physical, psychological and skill of the swimmer, It allows investment and employment potential energy as the best investment and use with the opportunity for a swimmer to control his emotions and his performance.

This called that has relaxation training much attention from researchers in the environment, as indicated by Rania (2005)

(Shane, et al. 2006) showsthat the relaxation exercises help the blood flow this works to relieve tension and improves muscle tone.

(Osama, Mohamed, 1992) Indicatedthat focus attention a component of psychological variables most important for the athletes, it is a permanent condition relatively speaking, so that the player is compatible psychologically, and feel the happiness with himself and with others, and be able to achieve the same and take advantage of its capabilities and abilities to the fullest extent as possible to be able to meet the requirements of life.

The numerous and varied studies recently to study the rushing in of in haste and attention deficit coupled with tense muscle and actively kinesthetic

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Plus, and interested in some of which the study of fundamental aspects of this disorder and found from the results that the lack of attention and impulsive of the most important aspects, which lead to problems in the educational process and the difficulty of focus and attention.(Radwa, 2001).

Through observations researcher in the field of swimming have noticed the growing phenomenon of rushing in the performance of the members of the research sample marked by the lack of attention with increased muscle tension, which leads to increased rush in performance to have, and therefore a decline in their condition and regained skill, as noted by the researcher that most programs training direct care by focusing on the physical preparation and skill without paying attention to the psychological aspects, may be due to lack of adequate knowledge of the importance of psychological and setting him impulsive reductions in performance resulting from the lack of focus of attention and the severity of the degree of tension. (Osama,2004).

A continual state of tension makes it easier for a panic attack to occur because the nervoussystem is already highly aroused. In this case, someminor event, such as an unexpected encounter with a friend, can triggerfurther tension that can lead to hyperventilation and panic. Even if you do not have panic attacks, you are more likely to feel anxious, constantlyapprehensive, or have unpleasantobsessive worries when your body is in acontinual state of tension. Through this offer sees the researcher to relax playing an important role in the development of focused attention and reduce the degree of tension, which helps in reaching to the optimum level to focus attention, which leads to high level of skill, but a low level of concentration of attention leads to more negative effects on the level performance skills.

Swimmers ability to relax an important role in improving performance through the ability of the natural relaxation training can speed up the nervous system excitation and inhibition athletes' conversion rate, increased muscle contraction force, to reduce the resistance and energy consumption. (Osama, 1995) from this point the researcher saw use exercises to relax and get to know their impact rushing performance (focus attention and reduce the degree of tension) of the swimmers.

Methods

Six female swimmers from the university swimming team, All participants completed (3) questionnaires to assess health history, muscle tension levels and attention concentration. And identify the record of 50m front crawl swimming before and after eight weeks of relaxation training (three times weekly).

Relaxation exercises come in various forms, such as progressive muscle relaxation, biofeedback and some forms of yoga. Using relaxation as part of your overall workout plan will improve performance in four distinct ways.

Instruments

Grid Concentration Test

Grid Concentration Test is a dynamic approach to determine selective attention capacities and situational awareness.(H. Mohamed, 1998). Translated the version to Arabic languish and the network test can help focus on a good selection of players who can focus their attention much better.

The duration of the test one minute and ask the player to put a sign (/) on the largest possible number of digits that follow the number assigned determined by the coach sports or the psychologist athlete on the diagram on the following page should preferably be selected number is less than the number 65 taking into account that follow numbers a consecutive manner. For example, when you select the starting number 17 should be the player to develop a sign (/) on No. 18 and then No. 19 and No. 20, and so on and not try to put a sign (/) on the number 19 first and then the number 18 seconds.

There is no doubt that the player who recorded the largest number of numbers compared to his colleagues has a better focus. In addition, this test can be used several times with the primary change the number specified in each subsequent visit. You can also change the focus and network numbers to make multiple copies of them with changing their numbers so as not to place players get used to save and remember where the numbers. In addition, taking into account that all the numbers are made up of two numbers, such as (01), (02), and so on. The test can be performed in many experimental situations such as performance, in front of colleagues or add some attention-separated variables.

Muscle Tension Levels Chart

This chart contains observed many of the expressions (face, hand, etc.)

Training Protocol

The objective of relaxing exercises:

- Develop the ability to focus attention by relaxation exercises (muscle, mental, conceptual) to the members of the sample.
- Reduce the degree of stress through relaxation exercises (muscle, mental, conceptual) to the members of the sample.

The foundations of relaxation training mode:

- A sense of the difference between the case muscle during contraction and the diastole to reach the maximum level of muscle relaxation.
- Take into account access to the best level of mental relaxation through relaxation exercises (muscle, mental, conceptual).
- Access to the best level of relaxation conceptual through relaxation exercises

(muscle, mental, conceptual)

Relaxation exercises components:

- Relaxation exercises include a range of dimensions and basic themes, namely:
- Walk Slow Sir mobile device.
- Relaxation exercises (muscle - mental and conceptual).
- Breathing exercises.

Axes and the dimensions of relaxation exercises:

Founded the proposed relaxation exercises:

- The first axis: relaxation exercises and includes the following dimensions:
- The first dimension: muscle relaxation (Cascade).
- The second dimension: mental relaxation using (aware of the negative thoughts).
- The third dimension: Conceptual relaxation.
- The second axis: breathe control.
- Time to relax exercises:
- Relaxation exercises applied for (8) weeks, 3 units a week, (24), a training module, and a rate of 90 minutes for each training module facility.

The researcher took into account the availability of the following:

- To be relaxing in a quiet place away from any external stimuli and the temperature is suitable for a comfortable feeling.
- Be swimming in a comfortable position to stay there for a period so performance can continue.
- To focus attention on one idea and one word sequence repeats again and again linked to exhale in the process of breathing every time.
- Explain the purpose of relaxation exercises even contribute to the more conviction relax role in the development of the level of performance.
- Focus on the clothing to be spacious and comfortable with getting rid of everything that impedes the sense of relaxation.
- Taking into account the appropriate distance between the swimmers.

Components of relaxation exercises:

The first axis: relaxation exercises:

The first dimension: muscle relaxation exercises

This represents a dimension of one-dimensional exercises relaxation has been using relaxation cascade gradual Progressive Relaxation as one of the types of relaxed muscle for the implementation of this dimension, which includes the performance of a series of contractions, muscle followed by completely relaxed any that aims to distinguish between contraction and extraversion muscular input to reach the muscle relaxation deep, with taking into account that the transfers from one muscle group to another until relaxation in all muscle groups of the body, and is intended to decrease the tension in the muscles to the point of approaching the absence of muscle activity. And relaxation cascade is a succession of contraction of the muscle group to another until covering all the muscle groups in the body.

The second dimension: mental relaxation:

Dish mental relaxation using (awareness of ideas negative) is one-dimensional primaries in the proposed program and use control method of breath for the implementation of this dimension, considering that the skill of deep breathing right is the key to gaining mental relaxation and freedom from stress and anxiety may rely on the performance of a set of exercises breathing.

The third dimension: Conceptual relaxation:

Rely on a set of scenarios that rely on stop negative thoughts and develop a set of positive phrases.

The second axis: breathing exercises:

Included a set of breathing exercises that rely on diaphragmatic breathing, thoracic breathing, breathing superficial, self-mute and taking payment periods of rest between each exercise and another.

Statistical analysis

All statistical analyses were calculated by the SPSS statistical package. The results were reported as means and standard deviations (SD). Wilcoxon signed-rank test (non-parametric statistical hypothesis test) used to determine the differences. $P<0.05$ was considered as statistically significant.

Results

Table 1. Show distributed of the study universe

Participations	Universe	Rejected	Main sample	Pilot sample
Helwan university Swimming team	12	2	6	4

Table 2. Age and anthropometric characteristics of the group (mean ± SD).

Variables	Measurement unit	Mean	Standard deviation	Median	skewness
Age	Year	20.32	1.51	20.00	0.64

High	Cm	173.45	6.56	175.00	-0.71
Weight	Kg	62.10	3.34	62.00	0.09
Attention focus	Degree	6.73	1.87	6.00	1.17
Muscle Tension	Degree	7.28	1.63	7.00	0.52
Relax	Degree	12.56	3.28	12.00	0.51
Performance level of 50 m	Degree	5.67	2.34	5.00	0.86

Table 2.Shows the age and anthropometric characteristics of the subjects. No significant differences were observed for the subjects.

Table 3. Shows the z scores before and after the relaxing training on the subjects.

Variables	Ranking number		Meanof ranks		Sum of ranks		Z	Sign.
Attention focus	1.00	5.00	2.25	2.00	2.25	10.00	2.48	0.002
Tension degree	2.00	4.00	2.50	3.33	5.00	13.32	-2.67	0.001
Performance level of 50 crawl	1.00	5.00	2.25	2.00	2.25	10.00	2.48	0.002

Data in Table 3 shows that there is a significant difference in overall Tests between the pre- and post-training.

Discussion

The results of this study showed that the posttests higher scores than the pretests in all measurements.

The researcher attributed these findings to the use of relaxation exercises have a positive effect in rushing in performance (focus attention), where the practice of these exercises leads to the development of the focus of attention to the members of the research sample.

The results of this study consistent with the results of a study of (Samira, 1992; Fatima, 1993; Adel, 1993; Wafa, Azza, 1999; Radwa, 2001), which showed the presence of the effectiveness of the use of relaxation exercises in modifying behavioral problems.

This is what achieves the imposition of the first search, which states that "no statistically significant differences between pre and post measurements in rushing in performance (focus attention) among members of the research sample in favor of the post measurement.

And returns researcher these results to the use of exercises to relax and their positive impact on rushing performance (reduce the degree of tension), where the practice of these exercises lead to reduce the degree of tension among members of the research sample, and that because of its exercises relaxation of movements calm and relaxed mental and psychological taken in the performance This variable conditions in addition to distinguish the performance of movements and take the situation of the body require a high degree of control in all its parts.

The results of this study agree with the results of a study of each of (Osama, 1995; Fatima, 1993; Mohammad, 1998) was reached to alleviate aggression, anxiety and depression in different samples.

Also agree these results with the findings of each of (Khaled, 2001; Naji, Fatima, 2004) were concluded that sports training and exercises relax, and education programs kinetic have a positive effect on the development of skills and aspects of physical and motor skills as well as motor efficiency, psychological and social.

The results are consistent with what refers to him both (Abul Ela, Ahmed, 1993) that prolongation training lead to relax the muscles which helps individual's sense of comfort and ease degree of tension experienced.

This is what achieves the imposition of the second search, which stipulates that no statistically significant differences between pre and post measurements in rushing in performance (degree of tension) of the members of the research sample in favor of the post measurement.

The researcher attributed these results to the positive impact of relaxing exercises and used in performance (focus attention and reduce the degree of tension) of the members of the research sample.

Which highlights the importance of relaxation exercises for an individual in that they gain will power and patience, focus, gain the physical and psychological immunity, and reduce the stress fact it?

And these results agree with what refers to (Osama, 2004) who noted that the exercises progressive relaxation check acquire the skill to get rid of tension and a sense of fluent regions different body, and the skill of breathing easy lead to acquire the skill relax for athletes, also pointed out that the training relaxing contributes positively in the development of physical performance and then develop athletic performance, which helps performance skills are well-proportioned, and provide mental responses soundly .

As seen (Mohammed, 2002) that relax leads to reduce the impact of the response to stress and help to reach the optimum level of tension and prevent the accumulation of stress by working to reach a low level of stress and access to the degree of deep relaxation, which at least the level of tension, must also be psychological skills development along with the development of performance skills, and practice relaxation exercises work to improve the level of performance skills and increase the knowledge of player skill performed.

Muscles are designed to remain in a relaxed state until required to perform some physical activity. In normal circumstances, a person would show fluctuating patterns of tension and relaxation over the course of the day. The fight or flight response also results in muscle tension. When swimmer feel under stress for long periods they seldom allow the muscle tension levels to become deactivated, and excessive muscle tension may become constant. Eventually, these people become unable to relax or cannot recognize tension: In fact, the tension may appear to be almost relaxed compared with panic attacks. The tension no longer helps them perform their daily tasks, and may even hinder normal activities. Because of the tension,these people may feel jumpy, irritable, tired, or apprehensive, or experience frequent headaches and muscle pain.

Conclusion

In the light of the objectives of the research and imposed and within the nature of the sample and the methodology used and the statistical treatments and outcomes researcher reached the following conclusions:

1. Relaxation exercises have a positive impact on the rousing performance (focus attention) to the members of the research sample in favor of the post measurement.
2. Relaxation exercises have a positive impact on the rousing performance (degree of tension) of the members of the research sample in favor of the post measurement.
3. Relaxation exercises positively affected in the focus of attention by improved (39.90%).
4. Relaxation exercises positively influenced the degree of tension at an improved rate (41.51%).

Recommendations

Through the conclusions that have been reached and within the research sample the researcher recommends the following:

- The use of relaxation exercises within the contents of the training modules Helwan University students swim team
- Need to focus on relaxation exercises because of its positive impact in rushing in performance (focus attention and reduce the degree of tension).
- Conduct similar studies to identify the effect of relaxation exercises on various psychological motives.
- To conduct similar research in various sports activities to confirm the results of the search.

References

Abul Ela, A., Ahmed, N., 1993, Mental training, Arab Thought House, Cairo

Adel, A., 1993, The impact of competition on aggression in children's institutions, Master's College, University of Ain Shams .

Fatima, M., 1993, Set up a program to play collective to reduce aggressive behavior among pre-school children, the Center for the Study of Childhood, Ain Shams University, and the sixth annual conference of the Egyptian child.

Fatima, M., 2000, The psychology of violence among young people, Master of the Faculty of Education, Ain Shams University.

Katerine, R.J., 1993, Sport Program Effect on Participants with Mental Retardation (Special Olympics) Dissertation Abstracts International (A) 54.

Khalid, A., 2001, The effective use of different kinds of toys in modifying some behavior disorders among kindergarten children, Journal of Childhood and Development, the third issue, the University of Cairo.

Mohamed, H., 1998, Encyclopedia of psychological tests, Arab Thought House, Cairo

Mohamed, H., 1998, The entrance in sports psychology, I 1, the center of the book for publication, Cairo.

Mohammed, A., 1995, Mental training, relaxation road to the championship, the Arab Federation of Sports Medicine, the Journal of the Science of Sports Medicine, Navy, the second number.

Mohammed, A., 2002, Mental training in the field of sports, the Arab Thought House, 2nd Floor, Cairo.

Naji, M., Fatima, F., 2004, The effectiveness of the recreational develops some life skills and psycho-motor have children mentally handicapped", the first Arab conference, intellectual disabilities between avoidance and care, 13 to 14 January 2004 AD, Assembly Women, Assiut University for Development.

Osama , R., 2004, Physical activity and relaxation entrance to cope with stress and improve the quality of life, Arab Thought House, Cairo.

Osama, R., Mohamed, Z., 1992, The scientific basis for the training of swimming, 2nd Floor, Arab Thought House, Cairo

Osama, S., 1995, Sports and crimes of physical violence, Master Thesis, Faculty of Physical Education for Boys in Cairo, Helwan University.

Radwa, S., 2001, The impact of a proposed program for motor expression to alleviate aggression among children of the village (SOS) Master Thesis, Faculty of Physical Education Girls 0 Helwan University.

Rania, A., 2005, Relaxation and breathing exercises as a way to reduce stress among pregnant women," Master Thesis, Faculty of Physical Education for Girls in Cairo, Helwan University.

Samira, J., 1992, Amendment of the most common behavioral problems among primary school children using a pilot program in play, PhD Thesis, Institute of Educational Studies and Research , Cairo University.

Shane, M., Nazarian, L.N., Harwood, M.I., 2006, Son Graphically Guided Percutaneous Needle tenotomy for Treatment of Common Extensor Tendinitis in the Elbow., Mc Shane Sports Medicine, 734 E Lancaster Ave, Villanova, PA 19085, .USA, Jan .

Sheriff, I., 2007, The effect of relaxation exercises to reduce aggressive behavior of the youth team football, Journal of Physical Education Research overall, Faculty of Physical Education for Girls, Zagazig University.

Wafa, J., Azza, K., 1999, The effectiveness of a program to reduce aggressive behavior by using play in hearing impaired children, Journal of Psychology. May, the Faculty of Arts, University of Minya.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 149-153
Original article

STUDY ON THE USE OF DYNAMIC AND STATIC STRENGTH ELEMENTS AT THE AEROBIC GYMNASTICS WORLD CHAMPIONSHIPS

NICULESCU GEORGETA[1]

Abstract

*Purpose.*Gymnastics, in general, and aerobic gymnastics, in particular, influence greatly the physical, mental, moral and aesthetical development and improvement of the individual. Therefore, for its developers, aerobic gymnastics becomes a life style based on the joy of effort, on its educative value and on the compliance with the universal fundamental ethical principles.

*Methods.*The paper shows a comparative analysis from a quantitative point of view on the use of static and dynamic strength elements at the 12 editions of the Aerobic Gymnastics World Championships. We mention that the Romanian aerobic gymnastics teams participated in all 12 editions of the World Championships starting with 1995 and recorded notable results, in 2006 being ranked first in the team competition.

*Results.*Group A elements (dynamic strength) and group B elements (static strength) are used almost equally in routines. The research method used is a video-based study. The results confirm the working hypothesis.

The conclusions certify that in all events, women's individual, men's individual, mixed pairs, trios and group, the static strength elements (group B) record a higher rate than the dynamic strength ones (group A).

Key words: competitive aerobic gymnastics, difficulty elements, static strength, dynamic strength

Introduction

Gymnastics, as a sports branch, has been experiencing an upward trend resulting in new exercises, while the continuous improvement of its content has led to diversified independent branches (Niculescu, 2008). Competitive aerobic gymnastics is the youngest branch of gymnastics. Highly spectacular, very appealing to the public, it combines elements of artistic, rhythmic, acrobatic gymnastics and dancesport. Competitive aerobic gymnastics means the ability to continuously perform to musiccomplex, high-intensity movement patternsoriginating from traditional aerobics.Therefore, a complete routine must cover continuous movement, mobility, strength as well as the 7 basic steps and the difficulty elements, flawlessly executed (www.fig-gymnastics.com). There must be a balance between the basic steps, the arm movements and the difficulty elements ranging in four difficulty groups (Damian, 2005).

Competitive aerobic gymnastics covers four difficulty groups: Group A – Dynamic strength, Group B – Static strength, Group C – Jumps and leaps and Group D – Balance and flexibility. This diversity of elements offers various composition opportunities on harmony in movement and movement aesthetics, spectacular character, difficulty and exercise dynamics. A routine must cover a balanced representation of each group of movements according to the Code of Points. The static and dynamic strength elements offer great execution opportunities, their value carrying an important weight. The execution of each element reveals motor abilities as strength, mobility, balance capacity and coordination capacity.

Method

The A and B difficulty groups emphasise the gymnasts' muscle strength. Therefore, strength is the motor ability enabling an individual to overcome or fight resistance due to an intense muscular effort (Manno, quoted de Tudor, 1999)

The human body strength is the capacity to overcome or give way to an external or internal resistance by contracting one or several muscle groups (Dragnea, Mate-Teodorescu, 2002). The development of strength increases with age and it brings benefits to the physical performance and to the health of young people (Sabau, and colleagues, 2010).

Strength is considered to be the basic motor quality, since any movement involves a muscle contraction, closely related to the other motor qualities (Potop, 2008). For Pradet, 2000, strength is the ability to overcome an exterior resistance or to oppose to it with the help of the muscle contraction.

The difficulty level A category includes the elements of dynamic force that is achieved by isotonic contraction, which comes from a behavior of meeting a resistance (concentric) or giving way (eccentric) (Simion, Mihăilă, Stănculescu, 2011). The muscle shortens or lengthens and the dynamic force is the possibly highest force developed by the neurological and muscular system via a muscular contraction during a movement (Bota, 2000). Irrespective of the changes in the Code of Points, this level has always featured a large number of elements compared to level B.

The level B category includes the elements of static force, which manifests itself when the external

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Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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forces are higher than the ability of maximum force of the muscularity (Dragnea, Mate-Teodorescu, 2002). Upon examining this category, the smaller number of elements can be noticed, the elements are difficult to perform since the static strength (isometric) represents the tension voluntarily occurring in a muscle of a muscle group against a fixed resistance, in a given position (Bota, 2000). Hence, the gymnasts are required to have a special physical training. The elements of static force that are featured in the routines are motor actions involving to maintain a certain posture on a low support surface, which means that the muscles in the entire body must be well prepared.
In the Codes of Points, the elements are valued from 0.1 to 1. The coaches will introduce elements of a high value in the routines so that the gymnasts be awarded a high grade in the difficulty scale and a good ranking at the major championships.

Results

Table 1.1. Dynamics of the elements in category A – dynamic strength

Year	Round	Individual women's	Individual men's	Mixed pairs	Trio	Group
1995	**Paris**	20,18%	25,80%	21,88%	28,76%	
1996	**Haga**	17,20%	23,40%	27,33%	25,77%	
1997	**Perth**	18,22%	26,43%	28,82%	27,30%	
1998	**Catania**	20,00%	25,60%	27,33%	22,13%	
1999	**Hanovra**	18,57%	23,60%	27,06%	22,82%	
2000	**Riesa**	18,14%	25,66%	26,12%	25,78%	
2002	**Klaipeda**	20,09%	25,01%	27,09%	24,44%	29,44%
2004	**Sofia**	25,36%	24,40%	24,70%	24,50%	24,71%
2006	**Nanjin**	23,43%	30,36%	30,23%	29,17%	28,87%
2008	**Ulm**	17,70%	21,87%	17,70%	29,83%	19,78%
2010	**Rodez**	17,50%	23,75%	21,87%	23,90%	19,79%
2012	**Sofia**	18,75%	26,25%	22,91%	23,95%	25,00%

The results in the category A – dynamic strength – are included in table 1.1.

Table 1.2. Dynamics of the elements in category B – static strength

Round Year		Individual women's	Individual men's	Mixed pairs	Trio	Group
1995	**Paris**	16,34%	20,61%	25,80%	29,63%	
1996	**Haga**	18,97%	21,60%	29,01%	27,33%	
1997	**Perth**	18,31%	25,06%	30,12%	32,10%	
1998	**Catania**	18,32%	21,64%	30,07%	22,40%	
1999	**Hanovra**	17,33%	25,33%	28,66%	22,82%	
2000	**Riesa**	23,40%	23,91%	27,41%	30,58%	
2002	**Klaipeda**	18,45%	25,10%	26,66%	26,44%	27,33%
2004	**Sofia**	23,04%	25,20%	24,33%	24,50%	23,67%
2006	**Nanjin**	25,67%	28,81%	28,33%	29,18%	24,73%
2008	**Ulm**	13,53%	13,53%	17,70%	15,61%	14,57%
2010	**Rodez**	13,75%	12,50%	9,37%	12,49%	12,49%
2012	**Sofia**	11,25%	10,00%	10,41%	10,41%	11,11%

The results in the category B – static strength – can be seen in table 1.2.

Table 1.3. Women's Individual

Group	Family	Elements	Value	Frequency
A RODEZ	**A Frame**	A188 Explosive a-frame ½ turn to wenson	0,8	1x
	V & High V support	A239 High v- support reverse cut ½ turn to l split	0,9	6x
A SOFIA	**A Frame**	A188. Explosive a-frame ½ turn to wenson	0,8	1x
	V & High V support	A 239 High v- support reverse cut ½ turn to l split	0,9	7x
	Flair	A288 Flair to wenson or wenson to flair to wenson)	0,8	1x

B RODEZ	**Straddle Support**	B138 Straddle / l support 2/1 turn	0,8	5x
	V Support	B198 V-support 2/1 turn	0,8	1x
B SOFIA	**Straddle Support**	B138 Straddle / l support 2/1 turn	0,8	7x

Table 1.4. Men's individual

Group	Family	Elements	Value	Frequency
A RODEZ	**A Frame**	A188 Explosive a-frame ½ turn to wenson	0,8	3x
	Cut	A230 Straddle cut ½ twist to wenson	1.0	8x
	V & High V support	A 239 High v- support reverse cut ½ turn to l split	0,9	3x
		A250 1 Arm high v- support reverse cut ½ turn to l split	1.0	2x
	Flair	A300 1/1 Turn to wenson	1.0	3x
A SOFIA	**A Frame**	A188. Explosive a-frame ½ turn to wenson	0,8	2x
	Cut	A229 straddle cut ½ twist to push up	0,9	1x
		A230 Straddle cut ½ twist to wenson	1.0	7x
	V & High V support	A239 High v- support reverse cut ½ turn to l split	0,9	3x
	Flair	A291 Flair ½ to wenson	0,9	3x
		A300 Flair 1/1 to wenson	1.0	3x
B RODEZ	**Straddle Support**	B138 Straddle / l support 2/1 turn	0,8	2x
	Planche	B198 V-support 2/1 turn	0,8	1x
B SOFIA	**Straddle Support**	B270 Straddle planche to lifted wenson back to straddle planche	1.0	3x

In the gymnasts' competition, the high difficulty elements are the most frequent. This is reasonable, as the men gymnasts have much more strength then the women. The 1-point value elements are found in the finalists' routines. The Cut family- 8 and 7 x includes the most such elements and the Planche family the least, only one.

The frequency of the elements in groups A (dynamic strength) and B value 0,8-1 point at the World Championships Rodez and Sofia – mixed pairs (table 1.5.)

Table 1.5. Mixed pairs

Group	Family	Elements	Value	Frequency
A RODEZ	**A Frame**	A188 Explosive a-frame ½ turn to wenson	0,8	2x
	V & High V support	A239 High v- support reverse cut ½ turn to l split	0,9	5x
	Flair	A288 Flair to wenson or wenson to flair to wenson	0,8	1x
A SOFIA	**A Frame**	A188. Explosive a-frame ½ turn to wenson	0,8	6x
	V & High V support	A239 High v- support reverse cut ½ turn to l split	0,9	5x
	Flair	A288 Flair to wenson or wenson to flair to wenson	0,8	3x
B RODEZ	**Straddle Support**	B 138 Straddle / L support 2/1 turn	0,8	3x
B SOFIA	**Straddle Support**	B138 Straddle / L support 2/1 turn	0,8	7x
	Planche	B268 Straddle planche to lifted wenson	0,8	1x

Table 1.6. Trio

Group	Family	Elements	Value	Frequency
A RODEZ	**A Frame**	A188 Explosive a-frame ½ turn to wenson	0,8	6x
	Cut	A229 straddle cut ½ twist to push up	0,9	1x
		A230 Straddle cut ½ twist to wenson	1.0	2x
	V & High V support	A239 High v- support reverse cut ½ turn to l split	0,9	1x
		A250 1 Arm high v- support reverse cut ½ turn to l split	1.0	2x
	Flair	A291 Flair ½ to wenson	0,9	2x
		A300 Flair 1/1 to wenson	1.0	3x
	A Frame	A188. Explosive a-frame ½ turn to wenson	0,8	8x
	Cut	A230 Straddle cut ½ twist to wenson	1.0	5x

A SOFIA	**V & High V support**	A239 High v- support reverse cut ½ turn to l split	0,9	1x
	Flair	A291 Flair ½ to wenson	0,9	3x
		A300 Flair 1/1 to wenson	1.0	4x
B RODEZ	**Straddle Support**	B 138 Straddle / L support 2/1 turn	0,8	3x
	Planche	B270 Straddle planche to lifted wenson back to straddle planche	1.0	3x
B SOFIA	**Straddle Support**	B 138 Straddle / L support 2/1 turn	0,8	5x
	Planche	B270 Straddle planche to lifted wenson back to straddle planche	1.0	2x

Table 1.7.Grup

Group	Family	Elements	Value	Frequency
A RODEZ	**A Frame**	A188 Explosive a-frame ½ turn to wenson	0,8	6x
	Cut	A230 Straddle cut ½ twist to wenson	1.0	1x
	V & High V support	A239 High v- support reverse cut ½ turn to l split	0,9	1x
	Flair	A288 Flair to wenson or wenson to flair to wenson	0,8	4x
		A291 Flair ½ to wenson	0,9	1x
		A300 Flair 1/1 to wenson	1.0	1x
A SOFIA	**A Frame**	A188. Explosive a-frame ½ turn to wenson	0,8	5x
	Cut	A229 straddle cut ½ twist to push up	0.9	2 x
		A230 Straddle cut ½ twist to wenson	1.0	5 x
	V & High V support	A239 High v- support reverse cut ½ turn to l split	0,9	2x
	Flair	A288 Flair to wenson or wenson to flair to wenson	0,8	1x
		A291 Flair ½ to wenson	0,9	2x
		A300 Flair 1/1 to wenson	1.0	1x
B RODEZ	**Straddle Support**	B 138 Straddle / L support 2/1 turn	0,8	3x
	Planche	B268 Straddle planche to lifted wenson	0,8	1x
		B270 Straddle planche to lifted wenson back to straddle planche	1.0	1x
B SOFIA	**Straddle Support**	B 138 Straddle / L support 2/1 turn	0,8	4x
	Planche	B270 Straddle planche to lifted wenson back to straddle planche	1.0	1x

Results

As for the content under study, this paper aims to evaluate, comparatively, from a quantity perspective, the entire content of the elements in the A and B categories for the finalists in all the 12 World Championships so far organized. Similarly, we will present the frequency of the value elements of 0.8, 0.9 and 1 during the latest two world championships for the five rounds.While examining the dynamics of the elements in this category in the routines during the finals, at all 12 World Championships, a high variability in the percentage has been noticed in using the elements in this difficulty category for the routines, due to the changes in the Codes of Points. Thus, the highest percentage of the elements in A has been scored by the men's individual round (30.36%), mixed pairs (30.23%) and trio (29.83%) at the 2006 World Championships in Nanjin, while the lowest was registered by the women's individual (17.20%) in Hague, Rodez and Ulm. For the B group, the highest percentages were recorded in the trio at World Championship in Riesa, mixed pairs in Perth and Catania, and the lowest in Sofia (2012) during all rounds.The frequency of the elements in the categories A (dynamic strength) and B (static strength), of 0.8 – 1 in value at the World Championships in Rodes and Sofia – women's individual (table 1.3.) Upon examining the two groups, the participants at both World Championships used elements in the V & High V support and Straddle Support families with the highest frequency of 7x, and the low frequency of the elements in the A Frame and V Support family – only once. There are no elements of 1 point in this round.The frequency of the elements in group A (dynamic strength) and B (static strength) value 0,8-1 point at the World Championships Rodez and Sofia – men's individual (table 1.4.) There was no maximum value element in the mixed pairs competition, as the women gymnasts do not risk the execution of such elements. The highest frequency is found within the V

& High V support -5x and Straddle Support - 7x. We have only one element in the Flair and Planche families.The frequency of the elements in groups A (dynamic strength) and B (static strength) value 0,8-1 point at the World Championships Rodez and Sofia – trio (table 1.6.) The Cut and Flair families' elements are the most frequent at both World Championships, and the V & High V support family was the least frequent in Sofia. At both World Championships, the frequency of the maximum value elements (1 point) was of 21x, the 0,9 - 8x, and the 0,8 - 22x.

The frequency of the elements in groups A (dynamic strength) and B (static strength), value 0,8-1 point at the World Championships Rodez and Sofia – group (table 1.7.) In the group competition, the most exciting one, the 1 point elements were introduced in routines with a frequency of 10x, the 0,9 elements - 8x, and the elements with 0,8 value - 18x. The highest frequency is found at the A Frame and Cut families- 5x.

Conclusions

Synthesising the options of the athletes during the studied period, we notice that they used dynamic strength elements in group A, in a percentage of 25%, slightly different according to category. The mixed pairs and the groups had the most numerous dynamic strength exercises in their routines. A smaller percentage of these strength elements are found in the competitions' structures at the last three editions. Regarding the static strength exercises in group B, we note that the same categories, mixed pairs and group, preferred these elements, although the percentage was smaller than in the case of the dynamic strength elements. The same tendency to lower the use of the static strength elements has been observed at the last three editions of the World Championships.The more obvious use of the strength elements may be justified in the two cases. The specific of the routines require a high strength level, taking into consideration the support and pressure features needed in the movements between partners. In women's individual, we notice a balance between the dynamic and static strength elements, regarding both weight and value, at the two championship editions. The high value elements are dominant (dynamic strength - V & High V support 0.9) in the exercises structures for women's individual competition. The high value static strength elements (0.8 - Straddle Support) are preferred in the women's routines at the 2010 and 2012 World Championships. In the men's individual competition, the maximum value elements (1.0) are dominant, as the gymnasts have high execution strength.Maximum value elements have not been included in the content of the mixed pairs routines. The 0,8 value elements in the A Frame and Straddle Support families are the most common.The most spectacular competitions are: the world trio and the group competitions, first introduced at the World Championships in 2002, as the 0,9 and 1.0 point elements are dominant.

References

Bota, C., 2000, Erofiziologie.Editura Globus, Bucharest, 324

Codurile de punctaj FIG.www.fig-gymnastics

Damian, M., 2005, Gimnasticaaerobicăpentru student.EdituraOvidius Press, Constanţa, 24

Dragnea, A., Teodorescu-Mate, S., 2002, Teoriasportului.Editura FEST, Bucharest 356

Gagea, A., 1999, Metodologia cercetării ştiinţifice în educaţie fizică şi sport. Editura Fundaţiei România de Mâine, Bucharest

Hahn, E, 1996, Antrenamentul sportiv la copii. SCJ nr. 104-105, Bucharest

Niculescu, G., 2008, Gimnastica aerobică – aprofundare. Editura Fundaţiei România de Mâine, Bucharest, 11

Popescu, G., 2005, Impact aerobic. Bucharest. Editura Elisavaros

Potop, V., 2008, Gimnastica artistică feminină. Editura Bren, Bucharest, 31

Pradet, M., 2000, Pregătirea fizică partea I. MTS-CCPS, Bucharest, 183

Manno, R., 1996, Les bases de l'entraînementsportif. SDP nr. 371-374. Bucharest, 85

Sabău, E., Niculescu, G., Ciser, D, Alpaslan, Y., 2010, Study on the Efficiency of Some Formative Programs in the Development of Handgrip Strength and Flexibility. Scientific Report Series Physical Education and Sport, 14(1/2010), Bucharest, 334-337.

Simion, G., Mihăilă, I., Stănculescu, G., 2011, Antrenament sportiv -concept sistemic. Editura Ovidius University Press, Constanţa, 78

Tudor, V., 1999, Capacităţile condiţionale, coordinative şi intermediare-componente ale capacităţii motrice.Editura Rai, Bucharest, 47

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 154-158
Original article

THE IMPACT OF GREEN EXERCISE ON TEST OF PERFORMANCE STRATEGIES, PHYSICAL VARIABLES AND COUNTER-TIME PERFORMANCE FOR EGYPTIAN EPEE FENCERS

OSAMA ABDEL- RAHMAN[1], SAMEH MAGDY[1]

Abstract

Purpose. Green exercise refers to physical exercise undertaken in natural environments. this study aimed to investigated the impact of green exercise on Test of Performance Strategies (TOPS), physical variables and counter-time performance for Egyptian epee fencers

Methods. Twenty professional Epee fencers (mean ± SD age, 21.2 ± 2.05 years. High, 179.64 ± 7.31 cm. Weight, 77.22 ± 6.77 kg). Training experience 10.12 ± 2.11 years), all participations divided into equally to (2) groups (experimental groups -10 Epee fencers) and (control group -10 Epee fencers) from the Egyptian fencing clubs, the experimental group performed the green exercises (outdoor) which contain (warm up, stretch, and body weight exercises) for (8) weeks, and the control group practiced the traditional training only into the hall (indoor). Only the part of warm up is the different between the two groups .The data collected from counter-time performance test by using off camera 100 frames / second). And Physical abilities tests (flexibility, agility) before and after the programs for the two groups.

Results. **S**ignificant changes between posttests scores for the control and experimental groups ($P \leq 0.05$) in physical tests and counter time performance, (TOPS) variables in training Goal setting, Activation, Attentional control for experimental group, and (TOPS) in competition Goal setting, Activation, Negative thinking. However no significant differences were shown between other variables ($P \geq 0.05$).

Conclusions. Under the condition of our study, green exercise intervention for eight weeks has a beneficial effect on Test of Performance Strategies (TOPS), physical variables and counter-time performance for Egyptian epee fencers.

Keywords: TOPS, Green Exercise, Epee Fencing

Introduction

Since the 19th century, the natural environment has been considered important for ensuring a greater level of physical and mental health. Theories suggest that, due to our hunter− gatherer past, present day humans have an innate affiliation with nature and living things. Consequentially, nature is conducive to involuntary attention and does not require our directed attention, allowing recovery from mental fatigue and facilitating attention restoration. In the past decade, epidemiological studies have identified a positive correlation between improved health outcomes and amount of surrounding green space. Subsequently, the diverse health benefits that maybe engendered by nature have become a focal point for research. (Daniel, et al. 2013)

Both physical activity and exposure to nature are known separately to have positive effects on physical and mental health.

Green exercise refers to physical exercise undertaken in natural environments (Mackay, Neill, 2010; Pretty, et al. 2005). Physical exercise is well known to provide physical and psychological health benefits. There is also good evidence that viewing, being in, and interacting with natural environments has positive effects, reducing stress and increasing the ability to cope with stress, reducing mental fatigue and improving concentration and cognitive function (Kaplan, Kaplan, 1989; Ulrich, 1981). The concept of Green exercise has therefore grown out of well-established areas such as the attention restoration theory within environmental which have tended to focus on the psychological and physical effects of viewing nature and well-recognized work about the psychological benefits of physical exercise.

The potential role of green exercise in physical and mental health (e.g., due to nature-deficit disorder) attracted increasing attention from the early twenty-first century, particularly through the research work of Jules Pretty and Jo Barton at the University of Essex (Pretty, et al. 2005). And several funded programs. Research has involved participants from many different cohorts including adults, young people and vulnerable groups such as those with mental illness.

Fencing is a very old sport with well-developed pedagogies for techniques and tactics. Contemporary fencers reap the rewards of this history and combine it with the advantages of modern science, training methods, and sport theory. (Ibrahim, 1984).

The fencing of sports bout singles, which depend on different capacities' physical skills and mental In preparation methods player we find that the fencing room has its origins and its rules and has a

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philosophy and trends used by various methods, so as to develop the capacity to play this sport, where they differ in performance requirements for the rest of the kinds of sports. (Paul, 2008)

However, progress and rapid development of the sport has become closer to the high levels or overcome difficult unless the availability of the player many aspects of the physical and technical skills, psychological and mental, is the mental side of the important aspects where some experts have known this sport as we continue between the two minds the best in this sport depends on his mental capabilities such as perception, imagination, perception and sense of complex reaction, and all of these capabilities serve the tactical side in the player's performance (Abdel-Maksoud, Sanaa, 1993).

Epee fencing looks the most, and is most tactically similar, to true dueling. When watching epee competition, you see a much greater emphasis on clean blade work and keeping proper distance with footwork. Since even a tap on the wrist or the toe of the shoe with the point of the epee can score, fencers are slower to engage and don't rush in headlong.

With the athletes staying further apart to avoid touches, it is much easier to see the beauty of their blade work. Epee is by far the most mentally involved weapon of the three. Opponents seem engaged in a dance, their blades slithering like snakes, as they look for their moment to perform a clever attack. Unlike the aggressive and messy in-fighting one sees in foil fencing, epee displays greater use of beautifully executed deep lunges. Although the rule of right of way does influence epee fencers, there is more emphasis on avoiding being hit than with foil or saber. A deep, low lunge that reaches from outside blade crossing distance can be quite a surprise to an unwary opponent.

The fencer often combined a low, long lunge with an upward circular beat that would flow into a flick to the opponent's lead foot or foreleg. There is a great deal of artful trickery in epee fencing.

According to (Borysiuk, Cynarski, 2010) beside the motorial abilities and energetic predisposition, the psychomotorcapacities (different types of speed reaction) and psychological features (temperament and personality dimensions) play the key role in fencing and other similar sports. According to specialists the most important in the whole training process are :

The ability of transferring training skills, habits and features to the tournament combats; versatility, regarded as the combination of technique, various reactions -coordinative predispositions, motorial aptitudes, tactics as well as psychic features and processes,

The ability of controlling during the competition mental processes and emotional states, stress resistance, adjustability to different adversaries.

(Mohamed, 1987) points out the importance of setting tactical for sports activities characterized by struggle and compete against a competitor (face to face) such as fence individual such as boxing, wrestling and fencing, where these activities require the presence of a competitor positive in the face of the player immediately tries with all his strength frustrate the goals that intends to rival achieved and, as others suggest that competition in such sports activities is only a competition between the yen, thinking, thinking player in the face of rival thinking.

Actual actions are ultimate, specific actions intended to ward off a hit or to score a hit, directly or indirectly. From the point of view of the most elementary tactical application, the actual actions can be divided into: offensive actions, defensive actions and counter-offensive (offensive-defensive, counter-attacks)

An essential part of research in Sport Psychology is the assessment of athletes' psychological skills (25). Although previous research focused primarily on the differences in personality characteristics between successful and unsuccessful athletes, recent studies examine those differences in terms of the psychological skills which athletes have practiced and used. (Vealey, 1994)

Actually refers to the attention of coaches and all the physical aspects and personnel skills and tactical without any consideration of psychological skills, despite the fact that athletic performance in general depends on what the player's potential and physical skill and tactical and psychological skills as well.

Therefore, this study aimed to investigate the impact of green exercise on Test of Performance Strategies (TOPS), physical variables and counter-time performance for Egyptian epee fencers.

Material and Methods

Subjects:

Twenty professional Epee fencers (mean ± SD age, 21.2 ± 2.05 years. High, 179.64 ± 7.31 cm. Weight, 77.22 ± 6.77 kg). Training experience 10.12 ± 2.11 years), all participations divided into equally to (2) groups (experimental groups -10Epee fencers) and (control group -10Epee fencers) from the Egyptian fencing clubs, the experimental group performed the green exercises (outdoor) which contain (warm up, stretch, and body weight exercises)for (8) weeks, and the control group practiced the traditional training only into the hall (indoor). Only the part of warm up is the different between the two groups .The data collected from counter-time performance test by using off camera 100 frames / second). And Physical abilities tests (flexibility,agility) before and after the programs for the two groups. All participants were fully informed about the aims of the study, the procedures and the training, and gave their voluntary consent before participation. The experimental procedures were in agreement with the ethical human experimentation.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Procedures:

Age, height, weight, body mass index and Training experience were recorded. Height was assessed with a standard tape measure on a wall; weight was measured with household scales.

Measurement instrument.

The 64-item Test of Performance Strategiesis a self-report instrument designed tomeasure an athlete's use of psychological skills and strategies during competition andpractice (Thomas et al., 1999). Exploratory factor analysis has previously indicated an 8-factor solution for competition items and a slightly different 8-factorsolution for practiceitems. Seven factors are common to both competition and practice contexts, whereasnegative thinking is only included in the competition context and attention control onlyin the practice context. Each subscale has four items. Items were rated on a 5-point scaleanchored by 1 (never) to 5 (always). Scores for each subscale were summed and divided by four; resulting in overall factor scores that could range from 1 - 5.

Sit and Reach Flexibility Test

The sit and reach test is a common measure of flexibility, and specifically measures the flexibility of the lower back and hamstring muscles. This test involves sitting on the floor with legs stretched out straight ahead. Shoes should be removed. The soles of the feet are placed flat against the box. Both knees should be locked and pressed flat to the floor - the tester may assist by holding them down. With the palms facing downwards, and the hands on top of each other or side by side, the subject reaches forward along the measuring line as far as possible. Ensure that the hands remain at the same level, not one reaching further forward than the other. After some practice reaches, the subject reaches out and holds that position for a one-two seconds while the distance is recorded. Make sure there are no jerky movements. The score is recorded to the nearest centimeter or half inch as the distance reached by the hand. Some test versions use the level of the feet as the zero mark, while others have the zero mark 9 inches before the feet. There is also the modified sit and reach test which adjusts the zero mark depending on the arm and leg length of the subject. The table below gives you a general guide for expected scores (in cm and inches) for adults using zero at the level of the feet (otherwise add 23cm or nine inches).

Agility Shuttle Run Test

This test describes the procedure as used in the President's Challenge Fitness Awards. The variations listed below give other ways to also perform this test. This test requires the person to run back and forth between two parallel lines as fast as possible. Set up two lines of cones 30 feet apart or use line markings, and place two blocks of wood or a similar object behind one of the lines. Starting at the line opposite the blocks, on the signal "Ready? Go!" the participant runs to the other line, picks up a block and returns to place it behind the starting line, then returns to pick up the second block, then runs with it back across the line.

Terminology

Counter-time

An attack that responds to the opponent's counter-attack, typically a riposte following the parry of the counter-attack. (Nadi, 1996)

Tempo in fencing:

Tempo is a word that will take many meanings. It is the amount of time it takes one fencer to do one action, which is the definition used when determining right-of-way. It can also be used to describe the feeling of the bout, for example: fast, slow, even, etc. The Tempo (practiced by playing the "Bladeless distance game") is something that takes many parts. There is the tempo of the bout as well as the tempo of the fencer's footwork. But what is nearly indescribable is what happens when a fencer attacks "with the tempo". The fencer is truly attacking into preparation- not the beginnings of a compound attack, but true preparation- catching the opponent off guard, too busy still planning or simply not doing anything at all. Furthermore, this form of attack is so smooth and unexpected; the opponent quite literally doesn't know what hit him. (Evangelista, 1996).

Statistical Analysis

All statistical analyses were calculated by the SPSS.V.16 (Statistical Package for the Social Sciences). The results are reported as means and standard deviations (SD). T Test was used to compare group means in variance analysis results that were found statistically significant. Differences in means were considered if p, 0.05

Results

Table 1. Age, anthropometric characteristics and training experience of the two groups (Mean ± SD)

Group	N	Age [years]	Weight [kg]	Height [cm]	Training experience
Experimental	10	21.20 ± 1.6	80 ± 3.9	182 ± 4.1	11.27 ± 2.5
Control	10	20.11 ± 1.9	79 ± 3.1	178 ± 5.2	10.06 ± 2.3

Table 1 shows the age and anthropometric characteristics of the subjects. There were no significant differences were observed in the anthropometric characteristics and Training experience in the two different groups.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
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Table 2. Mean ±SD and T test in test of performance strategies (TOPS) for the control and experimental groups

Variables	Control			Experimental			T between two groups
	pre	post	Sign	pre	post	Sign	
(TOPS) in training							
Goal setting	14.99±2.62	15.02±2.37	Not Sign	15.02±2.13	17.86±1.69	Sign	Sign
Self-talk	12.25 ±2.37	12.62 ± 0.45	Not Sign	12.32±2.55	12.65±2.54	Not Sign	Not Sign
Relaxation	10.26 ±2.57	11.29 ± 3.99	Not Sign	10.11±1.98	10.86 ±2.11	Not Sign	Not Sign
Automatically	13.34 ±2.91	13.63 ± 3.52	Not Sign	13.67±1.87	13.74 ±2.72	Not Sign	Not Sign
Activation	13.11 ±2.34	13.56 ±2.61	Not Sign	13.27±2.06	15.90 ±2.15	Sign	Sign
Emotional control	14.55±3.21	4.89 ±2.33	Not Sign	14.09±2.57	14.34 ±2.21	Not Sign	Not Sign
Imagery	10.98± 1.17	11.11 ±1.66	Not Sign	11.24±2.11	12.75 ±2.62	Not Sign	Not Sign
Attentionalcontrol	14.46±2.09	14.87±1.50	Not Sign	14.00±1.98	16.56±1.75	Sign	Sign
(TOPS) in competition							
Goal setting	15.11±2.55	15.75±1.70	Not Sign	15.17±2.68	17.99±1.54	Sign	Sign
Self-talk	12.25 ±2.14	12.64±2.53	Not Sign	12.22±2.22	12.71±2.08	Not Sign	Not Sign
Relaxation	11.33±2.78	11.86 ±2.17	Not Sign	10.89±2.09	10.94±1.87	Not Sign	Not Sign
Automatically	12.47±2.69	13.02± 3.78	Not Sign	12.55±2.08	12.74 ±2.12	Not Sign	Not Sign
Activation	12.57±2.02	12.90 ±2.17	Not Sign	12.67±2.14	16.02±2.49	Sign	Sign
Emotional control	12.47±2.47	12.84 ±3.26	Not Sign	12.18±2.66	14.94±2.02	Sign	Not Sign
Imagery	9.14± 1.87	9.75 ±2.72	Not Sign	10.05±2.18	10.71±2.14	Not Sign	Not Sign
Negative thinking	11.57±1.11	11.66±1.15	Not Sign	11.68±1.96	16.14±2.35	Sign	Sign

Table 2. Showed a significant change between posttests scores for the control and experimental groups ($P \leq 0.05$) in (TOPS) variables in training Goal setting,Activation,Attentional control for experimental group, and(TOPS) in competitionGoal setting,Activation,Negative thinking. However no significant differences were shown between other variables ($P \geq 0.05$).

Table 3. Mean ±SD and T test in physical tests and counter time performance for the control and experimental groups

Variables	Control			Experimental			T between two groups
	pre	post	Sign	pre	post	Sign	
Flexibility	17.25±1.02	17.66±0.98	Sign	17.18±0.86	18.14±1.01	Sign	Sign
Agility	7.12±0.21	7.06±0.32	Not Sign	7.15±2.18	7.03±0.14	Sign	Sign
counter time	7.57±0.12	7.26±0.15	Sign	7.68±0.16	7.14±0.25	Sign	Sign

Table 3.Showed a significant change between posttests scores for the control and experimental groups ($P \leq 0.05$) in physical tests and counter time performance for the control and experimental groups.

Discussion

According to (Ibrahim, 2001). That fencing requires the mental side a greater degree of physical side, where the mental side plays a major role in jousting, so you should be characterized swordsman high degree of willpower and patience and control of emotions and the ability to act where there is no frequency domain. The strategy is to identify the best way to achieve the goal and to reach it by exploiting the strengths and overcome areas of weakness.

(Nadi, 1996; Osama 2006) noted the need for the development strategies swordsman performance through mental training and psychological , stimulate and pleasure in fencing due to confinement in the ring thinking, and that the fencing is still mentally before they are still dynamic and therefore depend on the mental toughness and the rules of self - restraint .

And refers federation international d'escream, (2002) that the performance in fencing strategies is working to create all the conditions in order to maintain on Attentional control the stability towards achieving the goal.

In the opinion of (Osama, 2006) that the strategies performance in fencing rely on muscle power and the rules of self-restraint, they are in fact an adventure of mind subtle, choosing the timing of the attack is the most influential factor on the rival, threat psychological effect is greater than the threat of weapons.

Psychological skills have been found to differentiate successful and unsuccessful athletes. In general, elite performers have higher self-confidence, heightened concentration, can regulate arousal effectively, use systematically goal setting and imagery, and have high levels of motivation and commitment. It has also been found that elite athletes use more goal setting, imagery and activation compared to non-elite athletes.

Athletes are required to be strong physically as well as mentally and emotionally. Psychological preparation is an important part of any athlete's regimen, and athletes that take part in combat sports such as fencing require a great deal of fortitude, determination, and mental toughness. There are many resources available to athletes that can help them with their psychological preparation, including coaches, books, and sport psychologists. (Czajkowski, 2007)

An important factor in any bout is the scoring of the first touch. To the one who scores goes not only the lead in points, but also a variety of feelings, including Accomplishment, relief, and joy. This boosts confidence and helps fuel the upcoming touches. The opponent, was scored upon, does not feel these effects. He may shrug it off and just focus on getting the next touch, as he should, or he may feel a variety of negative feelings, such as regret, frustration, anger, anxiety, and a partial loss of hope. (Paul, 2008)

Thinking processes play an important role in the activity of the individual and the responses within the exercise of aspects of various sports activities, especially in its attempts implementation and performance plans to play multiple, and is in an attempt speed estimate an individual's attitudes and perception of relations associated with the conduct of play, and the ability to infer and circular reasoning so that it can correct response, including commensurate with the positions. There are a lot of kinds of sports activities, which is located where the greatest burden on the thought processes during various tactical responses private in fencing and that is where the permanent conflict between the player and thinking opponent.

That negative thinking of personality psychological important to the player duel with the situation in mind that the player fencing cannot be just about the same negative thoughts private that his mind during the competition but he can make them not overcome him and affect his performance, to talk to positive self-associated positive-fixing in fencing.

Clearly reflects the level of self-efficacy, which means I can or cannot performance

The appearance full in the sport of fencing includes focusing the attention of mental full directed to competitors who changes always the distance from the player, and then attack and defense, in addition to setting his sword, and must be the player to continue to analyze the strategic competitor, at the same time he has to change and establish a strategy, and thus he has to decide what has the ability to successfully attack

Conclusion

Under the condition of our study, green exercise intervention for eight weeks has a beneficial effect on Test of Performance Strategies (TOPS), physical variables and counter-time performance for Egyptian epee fencers.

References

Abdel-Maksoud, S., Sanaa, E., 1993, Modern Fencing , Dar Port Said to print,

Borysiuk, Z., Cynarski, W., 2010, Psychomotor aspects oftalent identification :A new approach in the case of fencing .Archives of Budo, 6 (2), 91-94.

Czajkowski, Z., 2007, Taktykaipsychologia w szermierce, AWF Katowice.

Evangelista, N., 1996, The Art and Science of Fencing. Indianapolis: Masters Press.

Federation International D'escream, 2002, Regalement pour les epreuves, Swiss

Ibrahim, N., 1984, The impact of exercise on the development of visual sensation of jousting distance to the rookies, research published: Sport for All Conference, Volume II, and Faculty of Physical Education for Boys in Cairo, Helwan University.

Ibrahim, N., 2001, Fencing, Dar ElfekrElarabi, Cairo.

Kaplan, R., Kaplan, S., 1989, The Experience of nature: a psychological perspective " New York: Cambridge University Press

Mackay, G., Neill, J., 2010, The effect of "green exercise" on state anxiety and the role of exercise duration, intensity, and greenness: A quasi-experimental study. Psychology of Sport and Exercise ,11(3), 238-245.

Micahnik, D., 2003, Epee: The Long and the Short of It." Demonstration at the PhiladelphiaUSFCA AGM.

Mohamed, H.A., 1987, Sports psychology, 7th Floor, Knowledge House, Cairo.

Nadi, A., 1996, On Fencing. Laureate Press, Bangor, Maine.

Osam, A., 2006, Essentials of Fencing, Mansoura publish, Egypt

Pretty, J., Peacock, J., Sellens, M. et al., 2005, The mental and physical health outcomes of Green Exercise ". International Journal of Environmental Health Research, 15(5): 319-337

Thomas, P., Murphy, S., Hardy, L., 1999, Test of performance strategies: Development and preliminary validation of a comprehensive measure of athletes' psychological skills. Journal of Sport Sciences 17: 697-711.

Ulrich, R., 1981, Natural vs. Urban scenes: some psychophysiological effects " Environment and Behaviour, 13(5): 523-556

Vealey, R., 1994, Current status and prominent issues in sport psychology intervention. Medicine and Science in Sport and Exercise 26: 495-502.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 159-165
Original article

PREPARING BEGINNERS HANDBALL, CORRELATIONS BETWEEN TECHNICALS INDICES

RIZESCU CONSTANTIN[1]

Abstract

Introduction. The game of handball, characterized by accessibility, spectacular and a great dynamism is constantly changing and evolving. A basic requirement of modern handball is the exploitation of creative capacities players three basic components of sports training, physical, technical and tactical. Concept of unit training, the junior handball is a requirement more often expressed by many technicians. It is the more necessary, as is the need for the educational process at the level of the echelon to be within the limits of the corresponding coordinates peculiarities of age, gender and priority objective, the growth of a large number of authentic values for high performance handball (Rizescu, 2006). Handball game follows the same rules, which can add without fear of being wrong, and a thorough technical training conducted in support of the development of basic motor skills (Acsinte, Eftenie, 2000; Rizescu, Ciorbă, 2008; Cicma, 2011), the beginners, achievements prerequisite stage called mass base of handball performance.

Methods. The experiment was conducted at the elementary handball 10-11, the experiment group of School Sports Club no. 1 Constanta and the control group School Sports Club Medgidia. We applied four tests: passing the wall, passing two away games, dribbling through cones 30m and Shot on target.

The methodological basis of the work is the applied research methods: literature review, pedagogical observation, testing method (technical training) teaching experiment, comparative method, statistical and mathematical method of processing and interpretation of data.

It was assumed that the development and practical application of a system of specific performance, staggered in the technical preparation of the handball sport training beginners to promote their essential technical training level showed evidence of specific control while leading the development of correlations that will positively influence the art handball beginners.

Rezuntate. The data obtained are presented in tables as statistics, arithmetic mean, standard deviation, coefficient of variation and statistical significance by using Student test at $p < 0.05$.

Discussion. The values of the experimental group made most indices are higher than those of the control group which is statistically significant at $p < 0.05$. Correlative matrix presents four of the six statistically significant correlations.

Conclusions. Applying technical training program based on specific timing means has led to significant increase in index values technical training in the experimental group compared with the experimental group, which confirms the research hypothesis.

Keywords: handball, technical training, scheduling exercises.

Introduction

Concept of unit training, the junior handball is a requirement more often expressed by many technicians. It is the more necessary, as is the need for the educational process at the level of the echelon to be within the limits of the corresponding coordinates peculiarities of age, gender and priority objective, the growth of a large number of authentic values for high performance handball (Rizescu, 2006). Major international handball competitions (European Championships, World Championships, Olympic Games) have allowed some teams of specialists, making records, which showed statistically the top teams, exemplary physical training, on which all players have reached a high level of technical and tactical mastery, which allows application matches, with high efficiency systems play in attack and defense. But even in these conditions worldwide supremacy belonged teams in the most difficult situations they found appropriate resolutions against game systems in attack and defense. Game situations were favorable capitalized based on technical feasibility and general tactical knowledge, properly applied, through technical and tactical actions and combinations of all these advantages and disadvantages amid recovery systems play in attack and defense (Kunst-Ghermanescu et all 1983: Werner, Heinz, Gerd, Raimund, 1995: Hantau, 2002: Mihăilă, 2004). For those we consider important technical training, thorough and efficient, made right at the beginning of the prospective handball sports activity.

It is recognized that to achieve valuable results

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in sports games at the junior level, which guarantee achieving great performance from senior year training period must be spread over a period of 8-10 years old (Kunst-Ghermanescu et all, 1983; Baştiurea, 2005). This step increased efficiency to the extent they are taken into account as contributory factors and the limiting of performance. In addition the quality of the educational process - education is of critical importance in making models of training and playing at junior level.

The process of preparing the novice groups would seek to realize a range of driving motor skills compared to advanced, which will become more narrow specialization. The aim is to improve the technical training of athletes motor behavior, which causes multiple possibilities to solve the ever-changing situations that arise in competitions.

For learning technical procedures we go through stages of learning any act, action or motor skill. According to expert opinion in the field (Weinek 1983; Cârstea, 1999; Dragnea, 1996) stages of learning sport technology are:

1. Representation of motion information and training phase, the athlete creates the foundation design and the process that is to be taught, based on the explanations and intuitive means.

2. Stage movements rough or poorly differentiated feature first practical executions where the main information received verbal indications sport comes from their coach.

3. Step fine coordination and strengthening of technical procedures are usually performed correct movements or relative standard conditions varied execution has rhythm and amplitude accuracy is executed with raised index speed, strength and endurance.

4. Step to performed with the procedures technical perfecting and it is higher indices of efficiency and in the most varied conditions.

Knowing the theoretical aspects of learning in sport to be solved increase its efficiency in terms of the multitude of techniques in the game of handball. Handball game follows the same rules, which can add without fear of being wrong, and a thorough technical training performed in support of the development of basic motor skills (Acsinte, Eftenie, 2000: Rizescu, Ciorbă, 2008; Cicma, 2011), the beginners, is a prerequisite to achieving the objectives of the round table base called handball performance.

Wishing, and the professional obligation to get immediate results, from the children, modeling training and the game itself has a large share in the preparation of beginners.

Models present handball profile with physical traits, technical and tactical need to achieve. At the end of each stage is provided a model which should lead to the achievement of the whole educational process developed at that stage.

Physical parameters (development and physical training) provided for each model is the most pretentious ceiling is higher plane of ambition. In addition, between development trends of international handball is given precedence value increased physical component (type somatic and motor skills).

Technical and tactical side models also has a high level of ambition. The items provided are gradually phased in line with the age biomotrice potential that, given the idea that the end of the first stage, children begin to have appropriated most of the technical repertoire of the game.

It was considered that the level of beginners in the game of handball, with the physical component, technical training is contributing significantly to the preparation of future perfection handball. This frees the attention of athletes allowing them make the right decisions (Roman, Batali, 2007; Baştiurea, Stan, Mihăilă, 2013) in this regard has developed a training methodology based on a specific means used in preparing children beginners. Following the literature review, pedagogical observations during the experiment, interviewing coaches and based on research results was developed technical training methodology based on application specific means spaced, which can be considered a sound scientific training . The methodology can successfully complete the gaps in the process of preparing the children start in the game of handball.

In analyzing the technical preparation of novice handball players out of the reality that the technique is one that provides economy and efficiency in the execution of movements (Kunst-Ghermanescu et all, 1983).

Level technical event is conditioned by the development of motor skills, basic and specific, and tactical preparation, psychological and theoretical. Ensure the physical training is an essential condition for beginners learning the technique. To these are added the driving experience of every child, luggage motion skills and original. The process of preparing the novice groups would seek to realize a variety of motor skills, what we call the basic technique of the game of handball. We emphasize that the essence of the training program applied in our experiment, aimed at acquiring faster and at a higher level of technology in the beginners group.

Methods

The methodological basis of the work is the applied research methods: literature review, pedagogical observation, testing method (technical training) teaching experiment, comparative method, statistical and mathematical method of processing and interpretation of data.

It was assumed that the development and practical application of a system of specific performance, staggered in the technical preparation of

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

the handball sport training beginners to promote their essential technical training level showed evidence of specific control while leading the development of correlations that will positively influence the art handball beginners.

As evidence of measurable testing technique were used as follows:

- Passing the wall. Subject at 3 m of wall running and catching the ball bird for 30 seconds, the highest speed . Record the number of complete executions .

- Dribbling through cones 30 m sample consists of performing multiple dribbling the highest speed 30 m, including seven cones placed at distance of 3 meters from each other , the first is placed 6 feet from the start line. If you encounter technical fouls (double dribble, steps , foot) or it gets out of control , the sample is canceled. Is given two attempts , registering the best . Time to first movement performed to mark the 30 m line is timed in seconds and tenths of seconds .

- Passing two away games. In groups of two , 4 m distance between subjects , bird running and catching the ball travel a distance of 30 m Not allowed technical mistakes (steps , double) , huge or losing control of the ball. Are timed in seconds and tenths of seconds , completing the 30 m

- Shot on target. Subjects will perform five throws from the line of 7 m , the gate handball divided into nine rectangles (Figure 1), each corresponding a number of points. Sample result is given by the sum of the points made.

5	**3**	**5**
2	**0**	**2**
4	**1**	**4**

Figure 1. Gate handball shot on target.

Along with conducting the tests was conducted and a training process that included an introduction to the basic technique of handball through specific "school ball" in order to test and specific physical training, and technical training.

The research was conducted in the School Sports Club no. 1 Constanta unit athlete with outstanding Romanian handball the children and juniors, where he formed the experimental group and School Sports Club Medgidia of operation control group. Both groups were made up of 25 girls aged 10 to 11 years. Subjects continued their training schedule prepared by the teachers based on group, the difference being that the experimental group for basic training technique used drives selected and staggered special.

We present specific scheduling means used for the technical preparation of the experimental group.

I. School ball - M

M 1. Juggling ball, 4 x 1 min, 30 sec break

M 2. Cross the bridge, 5 x 1 min, 30 sec break

M 3. Ball under the bridge, 5 x 1 min, 30 sec break

M 4. Ball in wave 5 x 1 min, 30 sec break

M 5. The ball traveling (by side), 5 x 1 min, 30 sec break

M 6. Relay with transport balls (different sizes), 4 x 30 m, rest 45 sec

M 7. Relay with two ball rolling, 4 x 30 m, 45 sec break

II. Catching and passing the ball - P

P 1. Defend the city, 4 x 2 min, 30 sec break

P 2. Hot ball, 4 x 2 min, 30 sec break

P 3. Ball captain, 4 x 3 min 30 sec pause

P 4. Ball nations, 2 x 5 min, 1 min break

P 5. Pass number called 4 x 4 min, 30 sec break

P 6. Chase balls, 2 x 5 min, 1 min break

P 7. Passing the 2 and 3 players, place, 5 x 2 min, 1 min break

P 8. Passing triangle, bordering the ball, 6 x 2 min, 45 sec break

P 9. Passing the square 6 x 2 min, 45 sec break

P 10 Assists in running between 2, 3, 4 players without and roll, 8 x 30 m, rest 45 sec

P 11. Spools simple 5 x 2 min rest 1 min

P 12. Double spool without and roll, 5 x 3 min 45 sec pause

P 13. Square moving, single and two-ball, 4 x 4 min, 45 sec break

P 14. Inter-level left and right, passing the string broke and retracted, 4 x 2 min, 45 sec break

P 15. At the level of inter left, right and center cross, passing the string broke and retracted, 3 x 3min, 30 sec break

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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P 16. In groups of four, Inter and extreme penetration passes in successive free throw or extremes or international level, 3 x 5 min rest 1 min

P 17. Settlements in the attack, without pivot, passing in successive penetrations without throwing or 3 x 5 min, 1 min break

III . Shot on goal - Ap

Ap 1 . Target ball , 2 x 5 min , 30 sec break

Ap 2 . Throw one cried , 2 x 5 min , 30 sec break

Ap 3 . Wild duck , 2 x 6 min , 1 min break

Ap 4 . Ball under the strap, 2 x 5 min , 30 sec break

Ap 5 . Ball tower, 2 x 6 min , 1 min break

Ap 6 . Take down the ball , 2 x 6 min , 1 min break

Ap 7 . Contest throw away (tennis ball or rounders), 4 x 2 min , 30 sec break

Ap 8 . Shot on goal from the spot (vertical or horizontal Trainers Weights hitting 3 x 10 throws

Ap 9 . Shot on goal divided into nine rectangles 3 x 7 throws

Ap 10 . Passing shot on goal preceded by the different positions of attack , 3 x 10 throws

Ap 11 . Shot on goal preceded by huge 3 x 10 throws

AP 12 . Passing shot on goal preceded horseshoe 3 x 5 throws

Ap 13. Throws the ball crossed steps 3 x 10 throws

Ap 14. Shot on goal from the jump , followed by assists, 3 x 10 throws

Ap 15 . Shot on goal from the 7 m , 4 x 2 throws

IV. Dribbling - D

D 1. Ball on the trail, 6 x 30 m, 45 sec break

D 2. Race in huge numbers, 2 x 5 min, 30 sec break

D 3. Dribbling through obstacles, 6 x 30 m, 30 sec break

D 4. Dribbling of running straight, 6 x 30 m, 30 sec break

D 5. Simple spools huge (20-30 m), 4 x 2 min, , 45 sec break

D 6. Dribbling through seven benchmarks without and roll, 2x 8 executions, , 45 sec break

D 7. Relay with huge, groups of 4 players, 6 x 30 m, 30 sec break

D 8. Dribbling, ball, grip, dribbling, throwing, 2 x 10 executions, 1 min break

Results

Data from initial and final testing of the two groups of subjects are interpreted statistically and presented in Table 1.

Table 1. Dynamic of technical training (experimental group n = 25, control group n = 25)

Indices	Group	Initial testing		Final testing	
		M ± DS	CV	M ± DS	CV
Passing the wall (nr./30sec)	experiment	16,16±1,74	10,81%	18,84±1,74 a i	9,27%
	control	16,36±2,09	12,83%	17,72±1,72 b	9,70%
Passing two away games (sec)	experiment	7,01±0,24	3,42%	6,03±0,30 c j	5,12
	control	6,93±0,22	3,30%	6,29±0,18 d	3,00%
Dribbling through cones 30 (sec)	experiment	7,09±0,26	3,72%	5,82±0,30 e k	5,22%
	control	7,05±0,29	4,11%	6,00±0,30 f	5,05%
Throwing on target (points)	experiment	11,72±1,96	16,79%	19,92±1,95 g l	9,82
	control	12,72±2,22	17,50%	18,56±2,06 h	11,11%

a – t=1,42, p>0,05	not statistically significant (n-1)
b – t=0,54, p>0,05	not statistically significant (n-1)
c – t=5,73, p<0,001	statistically significant (n-1)
d – t=3,15, p<0,001	statistically significant (n-1)
e – t=3,14, p<0,001	statistically significant (n-1)
f – t=3,29, p<0,001	statistically significant (n-1)
g – t=5,78, p<0,001	statistically significant (n-1)
h – t=5,10, p<0,001	statistically significant (n-1)
i – t=2,28, p<0,05	statistically significant (n-2)
j – t=3,58, p<0,001	statistically significant (n-2)
k – t=2,14, p<0,05	statistically significant (n-2)
l – t=2,39, p<0,05	statistically significant (n-2)

Legend: M = Average; DS = Standard deviation; CV = Coefficient of variation; n = number of students

Also were calculated and correlations between indices technical training conducted by the experimental group. The correlative matrix in Table 2, the correlation index is provided at the end of the experiment technical training.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
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Table 2. Matrix indices correlative technical training

	Passing the wall	Dribbling through cones 30m	Passing two away games	Throwing on target
Passing the wall		**0.284**/*p<0,05*	**-0,768**/*p<0,001*	**0,731**/*p<0,001*
Dribbling through cones 30m			**-0,210**/*p>0,05*	**0,01**/*p>0,05*
Passing two away games				**-0,684**/p*<0,001*
Throwing on target				

Legend: r ≤ 0,273, p<0,05; r ≤ 0,354, p<0,01; r ≤ 0,443, p<0,001; __ statistically significant correlations

Discussion

In the literature we find few studies analyzing the technical aspects of preparing beginners handball. There are researches that have shown that there is statistically significant between technical execution (technical parameters) and somatic development (anthropometric indices of different ages) (Mohamed et al., 2009; Baştiurea, Stan, Mihăilă, Cretu, 2011). For those we refer to some data that we find at the Romanian Handball Federation (FRH).

Passing the wall. In this sample, which is achieved contretemps, growth is evident at the end of research, especially in the experimental group who go from 16.16 ± 1.74 assists, initial testing at 18.84 ± 1.74 assists, final testing, 2.68 assists progress and control group 16.36 ± 2.09 to pass, initial testing at 17.72 ± 1.72 assists, final testing, 1.36 assists progress. The differences between the averages of each group between the two tests are statistically significant at p <0.05. Initial testing both groups show average group homogeneity and final testing variability coefficient values (9.27% and 9.70%) indicating high homogeneity of the group. Applying Student's t test for independent samples to final testing, we note that the difference between means is statistically significant value of t = 2.28 threshold of significance p <0.05.

Passing two away games. Average initial testing results are very similar in the two groups, 7.01 ± 0.24 sec in the experimental group and 6.93 ± 0.22 sec in the control group. When final testing, the difference between the average experimental group is for that record an average of 6.03 ± 0.30 sec, as compared to 6.29 ± 0.18 sec to the control group. Progress made by the two groups at initial testing at final test is statistically significant at a significance level of p <0.001 experiment group and p <0.001 control group. We find that the two tests both groups have values of the coefficient of variation which signifies high homogeneity.

Significance of difference between groups in final testing environments is statistically significant in favor of the experimental group to a value of t = 3.58 at a significance level of p <0.001.

Dribbling through cones 30m . FRH indicate preliminary selection rules for performing this experiment on 30 m, but in a straight line . Subjects in our experiment were subjected to conduct this test in a more complicated shift among landmarks . Comparing the results , we note the development of high performance model in all subjects . Thus , the experimental group is timed initial testing with a time of 7.09 ± 0.26 sec , and final testing of 5.82 ± 0.30 , thus an improvement of 1.27 times sec . Initial testing of the control group recorded an average of 7.05 ± 0.29 sec times , and the final testing 6.00 ± 0.30 sec , realizing they progress 1.09 sec . Groups show high homogeneity of the group in both tests , and the differences between the averages of each group in the two tests are statistically significant at p < 0.01 . Also the difference between media groups , experimental and control , the final test is statistically significant for t = 2.14 threshold of significance p < 0.05.

Throwing the target. Evidence strongly conditioned by the accuracy Technical execution, on target throwing the following values, the initial testing, the experimental group 11.72 ± 1.96 points and 12.72 ± 2.27 control group, and the final test, the experimental group 19, 92 ± 1.95 points and 18.56 ± 2.06 points control group. Progress of the two groups is recorded in accordance with the initial testing both groups have an average uniformity group, and final testing only the high homogeneity of the experimental group.

The difference between the averages of each group between initial and final tests are statistically significant at a significance level of p <0.001. We emphasize that the difference between media groups in final testing, statistically significant value of t = 2.39 at a significance level p <0.05.

And this sample the contribution of the special technical training group performed the experiment contributed to superior results compared to the control group.

Correlative analysis of the research indices during the experiment is that we will lămurii the links between them, in terms of technical training, but between technical training and physical training, general and specific.

The correlative matrix in Table 2, the correlation index is provided at the end of the experiment technical training. It is observed that most of the research

techniques indices, correlated significantly with each other. Passing the wall positively correlated with dribbling through cones ($r = 0.284$ $p < 0.05$) and throwing on target ($r = 0.731$ $p < 0.001$), but negatively correlated with the travel passes ($r = -0.768$ $p < 0.001$).

Dribbling through the cones passes do not correlate with the displacement ($r = 0.210$ at $p > 0.05$), but no throwing on target ($r = 0.01$ to $p < 0.05$). Passing of throwing away negatively correlated with the target ($r = -0.703$ $p < 0.001$).

Of the six correlations found that four statistically significant correlation (both positive and negative), and the two of them the correlation is insignificant. The existence of correlations between indices technical preparation shows that when we work to improve one of them will positively or negatively influence other indices. Increase performance on Wall passes will lead to a positive change in the results from dribbling through cones and throwing on target, but a decrease in the value of the result to the travel passes, which means an improvement in performance.

Results from dribbling through cones, did not influence the results of the other tests except the wall passes. Increasing throwing on target performance will result in an improvement of the results in the displacement passes. We note that of the six possible correlations between parameters of technical training four correlated both positive and negative, statistically significant. And this confirms that acting to improve a technique will positively influence other techniques, except for dribbling through cones.

Conclusions

Literature review on the matter investigated and advanced experience in handball, highlighted the fact that in practice sport training from beginners, including the game of handball, applied a number of methods to increase the efficiency of training athletes. One of these would be staggering technical preparation of novice handball, where to date no well-reasoned methodology for selecting and applying means well determined purpose sports training of beginners handball.

One of the basic criteria to prepare is preparing technical beginners handball players. Following techniques clearly shows the dynamics of the experimental results, where the majority of samples tested were superior to the control group. The most conclusive results at the end of the pedagogical experiment were recorded technical evidence such as on target throws, wall passes, and passes two away games.

Applying technical training program based on specific timing means has led to significant increase in index values technical training in the experimental group compared with the experimental group, which confirms the research hypothesis.

References

Acsinte, A., Eftene, A., 2000, Handbal, de la iniţiere la marea performanţă. Bacău. Publishing MediaTM.

Baştiurea, E., 2005, Handball. Methods and means for differentiated developing of coordinative abilitie, Chişinău, Republic of Moldova, Valinex Publishing House.

Baştiurea, E., Stan, Z., Mihăilă, I., Creţu, N., 2011, The influence of anthropometric parameters and of muscle-joint mobility on thespeed of execution in the handball game. Journal of Physical Education and Sport®. Piteşti. 11(1), 94 -101.

Baştiurea, E., Stan, Z., Mihăilă, I., 2013, The influence of somatic, functional and motor parameters on coordination at handball players. 6th Annual International Conference „Physical Education, Sport and Health. Piteşti. 22-23 Nov;17(1):163-168.

Cârstea, G., 1999, Teoria şi metodica educaţiei fizice şi sportului. Bucureşti. Publishing AN-DA.

Cicma, I.T., 2011, Experiment on the growth rates of development of specific game of handball driving qualities, trough specific means athletics, to juniors II echelon. The Annals of the University "Dunarea de Jos" Galati, Fascicle XV:Physical Education and Sport Management, 1, 219-223.

Dragnea, A., 1996, Antrenamentul sportiv. Bucureşti. Publishing Didactică şi Pedagogică.

Hantău, C., 2002, Handbal. Jocul în apărare. Bucureşti, Publishing Printech.

Romanian Handball Federation (FRH). Newsletter 5.1998.

Kunst-Ghermănescu, I., Gogâltan, V., Jianu, E., Negulescu, I., 1983, Teoria şi metodica handbalului. Bucureşti. Publishing Didactică şi Pedagogică.

Mihăilă, I., 2004, Handbal – pregătirea fizică specifică diferenţiată. Chişinău. Publishing "Valinex" SA.

Mohamed, H. Vaeyens, R. Matthys, S. et al., 2009, Anthropometric and performance measures for the development of a talent detection and identification model in youth handball. Journal of Sports Sciences. 2009 Feb 1;27(3):257-266.

Rizescu, C., 2006, Pregătirea tehnică în jocurile sportive // Conferinţa ştiinţifică internaţională "Ştiinţă şi performanţă motrică". Constanţa. 5-7.05.2006. în Analele Universităţii Ovidius. Seria Educaţie Fizică şi Sport. vol.VI. anul VI. Constanţa. 402 – 409.

Rizescu, C., Ciorbă, C., 2008, Pregătirea tehnică a handbaliştilor începători. În Analele Universităţii Ovidius. Seria Educaţie Fizică şi Sport. vol.VIII. anul VIII. Constanţa. 491-496.

Roman, G., Batali, F.C., 2007. Sports training. Theory and methodology. Cluj-Napoca Star Publishing House.

Weinek, J., 1983, Manuel d'antrainement sportif. Paris. Publishing Vigot.

Werner, V., Heinz, B., Gerd, F., Raimund, K., 1995, Pregătirea de handbal în sală. Bucureşti. Publishing C.C.P.S.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengage Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 166-170
Original article

RECOVERY - A HEALTHY LIFESTYLE FOR STUDENTS

SABAU ELENA[1]

Abstract

The purpose of this study is to assess the way students fight fatigue by using passive recovery (sleep) and active recovery (physical exercises) methods.The hypothesis:the motor skills associated with the recovery process are similar in male and female students.

Methods We initially checked the hypothesis on a group of 122 students (84 male and 38 female), aged between 20 and 28. We used a survey and applied a 12-item questionnaire which identified the degree to which the subjects used and benefit from the recovery process.

Results. Subjects recover especially through sleep through the night and less during the day. Their breath control is not sufficient, but try to see restored by physical activity.

Conclusions. We find that most subjects say they rest better after exercise sessions. Although they are quite active and personal interested in rest and recovery, and students do not usually pay attention to breathing properly or use different methods to improve breathing

Key words: recovery, sleep, physical exercises, students

Introduction

Sport effort means a biological and psychological consumption obviously be restored by natural means, such as sleep. The strategy can call and sleep inducing restful sleep onset. The recovery process reunites a series of natural or artificial methods coming from internal or external environment, which, if rationally applied, aim at reestablishing the equilibrium of the internal medium and at restoring the functional parameters at the level they were before training or competition effort (Ionescu, Anton, 2004).

According to Drăgan, 2002, trophic recovery or regeneration is an indirect form of energetic preparation of the organism, which is deprived of its fuel by exaggerated energetic consumption or by loss of its biological agents. Recovery or fighting against the tiredness installed after physical effort or higher loading is a physiological process leading to the regulation of the equilibrium of a body stressed by effort (Brătilă, 2002). Biological recovery is part of the strategy to maintain the population health. Kellman (2002), who was quoted by Mihăilescu (2011), thinks that recovery can be split into three directions: passive, active and proactive and it is self-initiated in order to restore physiological and psychological resources.

Recovery is commonly divided into active recovery and passive recovery, which complete each other and accelerate biological regeneration. Active recovery is performed by moderate physical exercises accelerating the degradation of metabolic residue produced by effort. Passive recovery refers to the periods in which the subject is not involved in any activity whatsoever.

All the people must be preoccupied to restore the body to its optimal functioning state. Biological and psychological recovery of the body is part of a healthy and durable lifestyle.

The efficiency of the recovery process ensures a good health status and longevity of athletic life.

If the recovery process has a correct duration, the vegetative, metabolic, hormonal and enzymatic parameters are restored to the normal values. Biological recovery induces positive effects in the psychological area of the athlete or person. Biological recovery is performed naturally, spontaneously and without any special intervention and it refers to the obligatory methods that might be omitted from the daily activity of the athlete or person.

Avramescu (2005) stresses even more the importance of recovery and recommends the objectification of the recovery process by clinical and paraclinical tests. The most efficient recovery method is sleep, which humans cannot miss. Beersma (1998) states that, although the fundamental question is why humans require sleep, scientists are providing more information about how humans sleep. As far as duration and timing of sleep are concerned, it is assumed that sleep provides important psychological and physiological functions.

Frank (2006) suggested the relationship between sleep and endocrine and immune systems in the benefit of recovery. The same author underlined that waking imposes a neural and metabolic cost that is paid by sleep. Physical effort implies an obvious

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Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

biological and psychological consumption, which must be restored by natural methods, such as sleep. Sleep strategy may also use methods inducing a restful sleep.

Methods

The research study was applied on a group of 122 students (84 male students and 38 female students) with an average age of 23.7 years. The questionnaires contained 12 items, by which we tried to identify the degree to which the subjects resort to the simplest and most accessible methods of biological recovery after daily effort. The questions regarded natural sleep recovery, breathe control and physical exercises. The received answers were centralized, tabulated and assessed in percentage and then they were compared between genders.

3. Results

Table 1 Do you to bed at the same time?

Item 1	Male (%)	Female (%)
Yes	65	71
No	23	20
Sometimes	12	9

Item 1

Most subjects answered that they used to go to bed at the same hour every night. A higher percentage (71%) of female students is constantly at bedtime. A relatively equal percentage of male and female students (23% versus 20%) were not consistent bedtime hour. Fewer subjects from both genders can barely sleep at the same time.

Table 2 How many hours do you sleep in night?

Item 1	Male (%)	Female (%)
4-5 hours	17	29
6-7 hours	52	44
8-9 hours	31	27

Item 2

The most subjects of both genders (52% versus 44%) sleep about 6-7 hours. A percentage represents only a third of the subjects from both genders fail to sleep more than 7 hours. About one third of all female students (29%) sleep less, more accurate 4-5 hours. 17% of male students sleep 4-5 hours.

Table 3 Do you have a short sleep in the afternoon?

Item 1	Male (%)	Female (%)
Yes	14	8
No	76	83
Sometimes	10	9

Item 3

Most subjects (76% and 83%) do not sleep in the afternoon. There are very few subjects who manage to sleep in the afternoon, for example female students (8%). In both genders equally and small percentage (10% and 9%) occasionally sleep in the afternoon. A short sleep have male students (14%) and female students (8%).

Table 4 Do you use techniques to induce sleep?

Item 1	Male (%)	Female (%)
Yes	27	48
No	54	30
Sometimes	19	22

Item 4

Most students (54%) do not use techniques to promote sleep. Most female students (48%) require different techniques for sleep. A percentage of 27% of the male students use techniques sleep. In both genders the lowest percentage (19% versus 22%) need support sometimes sleep onset.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
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Table 5 Do you learn in the night?

Item 1	Male (%)	Female (%)
Yes	24	45
No	41	19
Sometimes	35	36

Item 5

It seems that almost half of the female students (45%) used to study at night, although not in session exams. Most male students (41%) do not study at night. A fairly similar percentage of both genders (35% versus 36%) sometimes studies night. The small percentage (19%).that does not work is the female students study at night.

Table 6. Lack of sleep affects you?

Item 1	Male (%)	Female (%)
Yes	47	64
No	28	19
Sometimes	25	17

Item 6

The most affected by incomplete sleep are of female students (64%). Less affected or sometimes affected by incomplete sleep are male students (25% versus 17%).

Almost half of the male students surveyed (47%) are affected by lack of sleep. Other (28% versus 25%) are sometimes affected by lack of sleep.

Table 7 Do you practice physical activities?

Item 1	Male (%)	Female (%)
Yes	53	34
No	15	45
Sometimes	32	21

Item 7

Most male students (53%) go for workout. A small percentage of male students (15%) do not practice physical exercises, but 32% of them go to work out during the week. Most female students (45%) do not practice effort during the week. One third of them (34%) practice physical activity, and 21% of them sometimes go to work out.

Table 8 What kind of workout do you practice?

Item 1	Male (%)	Female (%)
Muscular tonus	32	21
Jogging	15	24
Fitness	24	53
Games	29	2

Item 8

Those who practice sports activities focused on strength are 32% (male students) and 21% (female students). More female students practice jogging (24%) and less male students (15%). More male students (53%) and only 24% female students practice the combination of strength and aerobic effort. Sports games are preferred by almost one-third of the male students surveyed (29%) and only 2% of female students prefer games.

Table 9 How many times you do you go to workout?

Item 1	Male (%)	Female (%)
2/week	48	51
3/week	36	42
≥4 more/week	16	7

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Item 9

Most male students (48%) and female students (51%) part 2 times a week to workout. A significant proportion, 36% (male students) and 42% (female students) fail to come to workout 3 times a week. A small percentage 7% (female students) and 16% (male students) have access to more than 3 times a week to workout.

Table 10 Do you sleep better after workout?

Item 1	Male (%)	Female (%)
Yes	78	81
No	20	12
Sometimes	12	7

Item 10

Most subjects (male students 78% and female students 81%) responded that they have a good sleep after physical activity. The rest of the subjects interviewed found that only sometimes they sleep better (12% male students and 7% female students), but a percentage of 20% male students and 12% female students really do sleep better after performing physical activities.

Table 11 Do you pay attention to breathing?

Item 1	Male (%)	Female (%)
Yes	17	35
No	18	17
Sometimes	65	48

Item 11

Most students surveyed (65% male) and (48% female) pay less attention to the breath. It seems that a relatively equal percentage of both genders (18% male students) and (17% female students) pay less importance to the process of breathing in personal recovery. Female students (35%) surveyed pay more attention breathing than male students (17%).

Table 12 Do you have a controlled breathing?

Item 1	Male (%)	Female (%)
Yes	25	36
No	63	42
Sometimes	12	22

Item 12

Most of male students (63%) do not apply special techniques to control breathing. A percentage of 25% of them still use controlled breathing techniques. Some male students (12%) sometimes perform special breathing exercises. Most of female students (42%) are not concerned on controlled breathing, directed. A percentage of 22% female students sometimes control their breathing and 36% of them control the breathing.

Discussions

A good sleep seems to be the best recovery strategy to elite athletes. The impairments in the endocrine systems that results from sleep deprivation may impair the recovery process and hence adaptation to training (Reilly, Edwards 2007).

A good night's sleep has positive effects on the nervous system recovery and restore the organs of the human body, but also of physical comfort.

Sleep hygiene refers to behaviors that improve quality and quantity of sleep. It involves avoiding behaviors that interfere with sleep patterns and engaging in behaviors that promote good sleep Stepanski, Wyatt, (2003). For a good sleep it may use different means. In order to restore the body it can be used active means, represented by exercise. Practice of lightweight, dynamic and aerobic efforts induces positive effects on balancing internal environment and returns to normal blood ph. Removal of waste products affect recovery rate.

Haack, Mullington (2005) study suggested that optimism and sociability decreased in individuals who were restricted to 4 hours of sleep per night for 12 nights, that began after the second night sleep-restricted night. Halson, 2008 reported from a few studies that heightened psychological stress from fatigue, frequent competitions may result in an inability to sleep appropriately.

Individuals with higher fitness have a faster recovery due to the efficiency with which their body metabolizes food and eliminate waste. Circulatory system support gas exchange and supply of nutrients at the cellular level (Bompa, 2002).

Individuals with higher fitness have a faster recovery due to the efficiency of their body metabolizes food and eliminate waste. Circulatory system supports gas exchange and supply of nutrients at the cellular level (Bompa, 2002).

Atmospheric air contains positively and negatively charged particles. Negative particles stimulate rapid restoration of respiratory-circulatory system and increase effort capacity. Breathing techniques in the form of spontaneous exhalation has also been suggested in addition to muscular recovery and relaxation (Cole, 2005). Recovery by movement is based on compensatory effect of physical exercises on the central nervous system.

Regarding sleep hygiene as a means of biological recovery of the body, the majority of students surveyed know the importance of time in rest. However, it remains a significant number of students who have not yet formed the habit for fixed time for bed. It seems that students get enough sleep good, for most over 7 hours of sleep and a good percentage pass 8 hours of sleep, which suggests good management of time spent resting recovery. Regarding the sleep in afternoon, most subjects interviewed state that does not have this time of recovery. Different activities dealing the subjects do not leave time for most of the afternoon sleeping. Responses of female students find that they are more interested in some means for induce sleep, compared to male students. Most students do not used and stimulate sleep onset.The female students are more interested to study on night. The quantity of sleep affects all subjects, but female students are more affected than male students. Subjects deprived of sleep blames fatigue and discomfort. After 2-3 days of insomnia, motor and mental performance are reduced, decreases muscle tone and difficulty in concentration occurs (Ionescu, Anton (2004).Seventeen sedentary adults with insomnia participated in a randomized controlled trial comparing 16 weeks of aerobic physical activity plus sleep hygiene to non-physical activity plus sleep hygiene. The physical activity group improved in sleep quality, sleep latency, sleep duration, daytime dysfunction and sleep efficiency compared to the control group. The physical activity group also had reductions in depressive symptoms, daytime sleepiness and improvements in vitality compared to baseline scores. Aerobic physical activity with sleep hygiene education is an effective treatment approach to improve sleep quality, mood and quality of life in older adults with chronic insomnia (Reid, 2010).

Conclusions. It seems that male students are more active than the female students. Most of them practice sports, preferably strength exercises, sports games with a frequency of 2-3 times/week. Female students are less active when practical exercise 2-3 times / week, and obviously prefer fitness. We find that most subjects say they rest better after exercise sessions. Although they are quite active and personal interested in rest and recovery, and students do not usually pay attention to breathing properly or use different methods to improve breathing.

References

Avramescu, T., 2005, Kinetoteraphy in Physical Activities, Bucharest: Didactic and Pedagogic Publishing House, 71-72.

Beersma, D.G., 1998, Models of human sleep regulation. Sleep Medicine Reviews, 2, 31-43.

Bompa, O.T., 2002, Training Theory and Methodology. Bucharest: Ex Ponto, 78-79.

Brătilă, F., 2002, Recovery after psychological and physical stress. Bucharest: S.C. Transport by Road Publishing House, 50-55.

Cole,R.J., 2005, Nonpharmacological techniques for promoting sleep. Clinics in Sport Medicine, 24, 343-53, xi.

Current perspectives and futures directions. Reviews in the Neurosciences, 2006, 17, 375-392.

Haack, M., Mullington, J.M., 2005, Sustained sleep restriction reduces emotional and physical well-being. Pain, 119, 56-64.

Halson, S., 2008, Nutrition, sleep and recovery. European Journal of Sport Science, 2008, March, 8 (2), 119-126.

Ionescu, A., Anton, B., 2006, Medical Management Effort., Centrul de Formare şi Perfecţionare a antrenorilor. National School of Coaching. Bucharest, 66-68.

Mindell, J.A., Meltzer, L.J., Carskadon M.A., Chervin R.D., 2009, Developmental aspects of sleep hygiene: Findings from the 2004 National Sleep Foundation Sleep in America Poll. Sleep Medicine. Volume 10, Issue 7, August, 771-779.

Reid, K..J., Baron, K.G., Lu B. Et al., 2010, Aerobic exercise improves self-reported sleep and quality of life in older adults with insomnia. Sleep Medicine, Volume 11, Issue 9, October, 934-940.

Reilly, T., Edwards, B., 2007, Altered sleep-wake cycles and physical performance in athletes. Physiology and Behavior, 90, 274-284.

Stepanski, E.J., Wyatt,, J.K., 2003, Use of sleep hygiene in the treatment of insomnia. Sleep Medicine Reviews, 7, 215-225.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 171-176
Original article

THE TACTICAL WHEEL FOR EGYPTIAN EPEE FENCERS ACCORDING TO THE HEIGHT DIFFERENCES

SAMEH MAGDY[1], FEKRY FAEK[1]

Abstract

Purpose. Fencing is a very old sport with well-developed pedagogies for techniques and tactics. Contemporary fencers reap the rewards of this history and combine it with the advantages of modern science, training methods, and sport theory.It is surprising then that so very little is published on the topic of how height affects fencing; hence, the aim of this study was to determine the tactical wheel for Egyptian epee fencers according to the height differences.

Methods. Data were collected on professional Epee fencers, all of them are members in the Egyptian fencing federation during the 2011-2012 seasons. The committee granted ethical approval from the Egyptianfencing federation. 16fencers (10high fencers (above 180 cm), 6 short fencers (under 180 cm).All of them participated in the national Egyptian championship .

Results. Each fencer is characterized by its unique physical and physiological demands in different high , and the fencer puts his strategy according to his physical abilities.The tall fencer tries to benefit from his high , so , he used the distance strategy but the short fencer used the timing (tempo).

Conclusions. This analysis has shown that the

The characters of short fencer

a. Lack of reach means attacking or counterattacking to deep target without controlling
b. The opponent's blade is risky if not suicidal.
c. Success requires greater skill than simply extending the arm.
d. A smaller frame may have less strength and mass.
e. May be required to be quicker and faster in order to be successful.
f. May be required to expend more energy during the bout in order to accomplish his
g. Goals.

The characters of tall fencer

a. The taller fencer has an advantage at greater distance because of his or her reach.
b. Long arms create longer trusts that aid all offensive and counter offensive actions.
c. With height there may be associated strength and mass.
d. Height and strength may aid in creating a psychological advantage.
e. Actions from the shorter fencer that normally would score with a single touch against
f. An opponent of similar height have a greater chance of ending in a double touch if the
g. Taller fencer counterattacks to the easy to hit the torso
h. Long lunges tend to be harder or slower to recover from.
i. If a long attack misses he's at risk.

And coaches Must be developed and modified their tactical training according to individual capacity.

Key words: Epee, Tactic, Egyptian fencers

Introduction

Fencing is a very old sport with well-developed pedagogies for techniques and tactics. Contemporary fencers reap the rewards of this history and combine it with the advantages of modern science, training methods, and sport theory. (Ibrahim, 1984).

In fencing the energy abilities, coordination, motor skills (execution of fencing actions) serve as a base for tactics. In fencing the correct and fast execution of the movement is not enough. Fencer in a bout must know, when and how to apply a given action. The fencer must choose the appropriate action in the most suitable situation. And this is why a very important aspect of tactics is a sense of timing (sense of surprise). This is connected with choice of situation to successfully employ an appropriate action (distance, opponent's movements, his intentions, accuracy of perception, fast and proper reaction etc.).

Timing or fencer's sense of surprise means perceiving, based on lightning-speed assessment of a situation, the opportunity to score a hit (convenient distance, opponent's careless movement, opponent's signs of inattention, opponent's hesitation etc.) and taking advantage of it (Czajkowski, 2007).

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The fencing of sports bout singles, which depend on different capacities' physical skills and mental In preparation methods player we find that the fencing room has its origins and its rules and has a philosophy and trends used by various methods, so as to develop the capacity to play this sport, where they differ in performance requirements for the rest of the kinds of sports. (Paul, 2008)

However, progress and rapid development of the sport has become closer to the high levels or overcome difficult unless the availability of the player many aspects of the physical and technical skills, psychological and mental, is the mental side of the important aspects where some experts have known this sport as we continue between the two minds the best in this sport depends on his mental capabilities such as perception, imagination, perception and sense of complex reaction, and all of these capabilities serve the tactical side in the player's performance (Abdel-Maksoud, Sanaa, 1993).

It is clear that some characteristics offer people an advantage. It is generally accepted that it is better to be quicker than slow, better to be stronger than weak, better to be intelligent than a dim-witted, etc. In some sports we expect the elite athletes to share certain physical characteristics. Basketball and volleyball tend to have very tall athletes, for instance. We see success in fencing, even at the elite levels, from a variety of individuals with different physical characteristics. There is no ideal platonic form of a fencer. Epee fencers though tend to be taller, but height is not a requirement for success in epee. As coaches, we need to be aware that we need to modify our teaching to adapt to the needs of the individual. Not all people can fit into the same fencing mold.

It is noteworthy, (Abbas, 1993) for fencer he needs to the ability of mental analytical active in addition to thinking smart with the ability to shuffle also requires courage and boldness to carry out the attack at any moment arises where opportunity and exploited in a timely manner. Also adds that the fencing sport competitive to be its competitor intelligence estimate where we find that the tactical side plays a key role in the win.

(Mohamed, 1987) points out the importance of setting tactical for sports activities characterized by struggle and compete against a competitor (face to face) such as fence individual such as boxing, wrestling and fencing, where These activities require the presence of a competitor positive in the face of the player immediately tries with all his strength frustrate the goals that intends to rival achieved and, as others suggest that competition in such sports activities is only a competition between the yen, thinking, thinking player in the face of rival thinking.

In this regard, says (Evangelista, 1996) plans in fencing "that is a good fencer, who takes into account the special abilities and employed against rival capabilities in the field of dynamic, time and occasion.

Epee competitive strategy is mostly a blend of three actions - attacks, defense with ripostes, and counterattacks. A truly good strategy should be a blend of all three, but most fencers will settle into an approach that uses one action more than the others. The most important, and often the hardest, aspect of any strategy is the concentration and focus you need to find, follow, and hit target when target is available. You need to be able to process information - at first, simple things picked up in training, then competition follow-up information (you need a trained observer to tell you what you've done wrong and how to correct it), then competition-day advice from a coach before or during a bout (you'll find, early on, that such advice is more confusing than useful - that's pretty normal). If you have the type of coach who can sit with you alongside the strip and analyze the fencers in your pool, take advantage of it - at first, you'll find that it doesn't seem to help much, but eventually it will, and much later it will make it possible for you to do it yourself. Next, you'll be able to step onto the strip with some sort of plan specific to certain opponents - sometimes it will work, sometimes not, and you'll have to decide if the failure is due to a planning problem or to an execution problem. There will be a frustrating period during which you'll get flashes of insight just after a bout (oh, I should have done this!!!!), but that stage for most people leads to the ability to think, strategies and adjust during the actual bout. So, for more experienced people, "bad days" will be lapses in focus rather than failures in techniques. (Moses, 1985)

Ibrahim, (1984) Seethat when you play with a competitor for the first time has to be explored in the first game, it is very important not to prolong the game even with the game with five touches, it is the survey known fencer sentences and movements competitor and he can accomplish his goal through the gaps left, and knows the defense capabilities of a competitor. His distances , and the types of setting different attack , and how to use timing, and how to use it to get the sword, and know when to interact with the call from him , and must workout deception, tricks, attack from the bottom , the setting of the attack , pressure and beatings.

There are also some questions that must be answered by the player so that it can duel better competitor, and choose the appropriate plan, and these questions: how to use the distances? How moving? How to keep his balance? What is the speed? Do you love playing sword blade and is controlled by well? Do you like the vast armed movements?Must learn player earn points and how to be is the initiator of the attack, and uses a timely manner to respond, uses what he learned in the lesson, does not allow for failure that possesses ideas, and must be a permanent planning of new If you do not succeed the previous plan, it is possible that the

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

change is simple in time, distance, or time. (Magda, 2000)

The Tactical Wheel defines how to defeat particular actions, beginning with the simple attack. As shown above, the direct attack is defeated by a parry-riposte, which is defeated by a feint-attack, which is defeated by a counterattack, which is defeated by an attack, which is defeated by a parry-riposte, etc. Thus, reducing fencing to little more than a physical game of paper, rock, and scissors.

In reality, nothing is this simple. A direct attack can be defeated not only by a parry-riposte, but by backing up out of the distance (sometimes called a distance parry) or by a counter-attack with opposition, or by ducking or - if the opponent is short - just by sticking your arm out if your reach is longer, or by swinging your blade so your opponent doesn't even think to do a straight attack, or by carefully retreating while reaching out to beat the opponent's blade and then hitting. (Ashraf, 2002)

Thus, the tactical wheel provides a good framework for understanding fencing actions but is NOT all there is to know about fencing actions. It is limited to simplistic, foreseen actions and puts an emphasis on the final action and not enough on the preparations.

It is noteworthy, (Moses, 1985) that thinking tactically grows and evolves through systematic and continuous training also through various friendly matches and official where tactical thinking resides on an ongoing basis in different circumstances and conditions and changing process which requires the exercise of the right tactical thinking .

See (Abdel-Maksoud, Sanaa, 1993) that in cases of attack regular resort player weapon to use sentences of skills that may be long or short in the light of playing conditions and in response rival , and often result in this sentence to achieve a particular goal may be to gain a point in favor of the attacker or influence the way that rival makes it beyond the scope of the stadium , which limits prescribed by law and therefore this out an advantage achieved the attacker as a result used for tactical sentences .

It is surprising then that so very little is published on the topic of how height affects fencing; hence, the aim of this study was to determine the tactical wheel for Egyptian epee fencers according to the height differences.

Material and Methods

Subjects

Data were collected on professional Epee fencers, all of them are members in the Egyptian fencing federationduring the 2011-2012seasons. The committee granted ethical approval from the Egyptianfencing federation. 16fencers (10high fencers (above 180 cm), 6 short fencers (under 180 cm). All of them participated in the national Egyptian championship and all subjects were free of any disorders known to affect bone metabolism, such as bone fractures, osteoporosis, diabetes and cardiovascular disease. The participants did not report use of any anti-seizure drugs, alcohol consumption, and neither smoking cigarette.

Procedures:

Age, height, weight, body mass index and Training experience were recorded. Height was assessed with a standard tape measure on a wall; weight was measured with household scales. Body mass index was calculated (BMI (kg/m^2) = Wt (kg) / (Ht $(m)^2$.

Terminology

The tactical wheel

The tactical wheel is a sort of choose-your-own-adventure of fencing strategy. The simple wheel has two spokes- offense and defense (or offense and counter-offense). After choosing a path (for example, offense), the fencer will try to figure out what the opponent's reaction is. If it is, for example, to parry, the attacking fencer should use compound attacks (those that attempt to avoid the parry) instead of simple attacks (those that attempt to hit on the first action). If the defender is also following the tactical wheel, after being hit with a compound attack, he will wisely switch to a counterattack in time (aka "stop hit"). This can continue back and forth until someone either makes a technical error or switches spokes. Additionally, more advanced fencers often rely on the complex tactical wheel, which has some additional parts called counter-time and feint-in-time.(Federation International d'escream, 2002).

Fig 1 explain the tactical wheel

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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Tempo in fencing

Tempo is a word that will take many meanings. It is the amount of time it takes one fencer to do one action, which is the definition used when determining right-of-way. It can also be used to describe the feeling of the bout, for example: fast, slow, even, etc. The Tempo (practiced by playing the "Bladeless distance game") is something that takes many parts. There is the tempo of the bout as well as the tempo of the fencer's footwork. But what is nearly indescribable is what happens when a fencer attacks "with the tempo". The fencer is truly attacking into preparation- not the beginnings of a compound attack, but true preparation- catching the opponent off guard, too busy still planning or simply not doing anything at all. Furthermore, this form of attack is so smooth and unexpected; the opponent quite literally doesn't know what hit him. (Evangelista, 1996).

Critical distance

All fencers are constantly striving to reach their critical distance- and forbid the opponent from reaching theirs. Critical distance is the distance in which it is impossible to react in time. Many fencers on the receiving end of this describe it as if the attack is in slow motion, that they can see it coming but for some reason their hands and feet just aren't listening. Assuming all other things are planned well, achieving critical distance will ensure the touch - with one exception: don't let your opponent realize it first! (Micahnik, 2003)

Distance event triggers

Distance event triggers or idle times to attack are designed to create an opportunity to act with critical distance. They are set up so that fencers can utilize either one or two tempo footwork (and could theoretically be modified to accommodate more than that) so that their attack is synchronized with the footwork of the opponent. These triggers use our main distances: short, medium, medium plus, and long; or extension, lunge, lunge plus, and advance lunge. The events will catch the opponent in transition, which is a perfect opportunity to hit them.(Evangelista, 1996).

Indication and objective.

The indication is a physical action that the fencer is demonstrated; the body language that he is allowing the opponent to read. The two indications are pushing and pulling. Quite simply, pushing is driving the opponent toward his or her end line, and pulling is brining them towards yours. The objective is the intent of the fencer once they get to that desired location. Defend and attack are the two objectives. For example, pushing to defend is to force the fencer as far back as he or she will go, and then pressure the fencer into attacking into the waiting parry and riposte. (Micahnik, 2003)

Preparation and Probes

Preparation begins as soon as you want it to. Perhaps it was the moment you walked into your first fencing class. Or when you began to seriously train for a large competition; it could be when you walked into that competition (though possibly without exuberantly announcing, or onto that strip, or came on guard for that touch. Whenever your preparation starts, it is vitally important. Preparation during the bout can also be dangerous. If you are left in the state for too long, your opponent is likely to catch you and score a touch. However, when done in the proper distance (hint: as far away from your opponent as feasibly possible), it will allow for your touches to happen. Ideally, the majority of preparation, where all things tactics are considered, specifically in their ability to function against the particular opponent, occurs in between touches, when the director is making his decision. Probes, though part of preparation, must be done during the fencing. Their function is to test out the opponent's defenses and to see where their strengths and weaknesses are. Probes can also be used to scope out the opponents hard ground which is the location on the strip from which they are unwilling to retreat any further. This is particularly useful information if one were to want to use pushing to defend. Make sure to be at a safe distance while performing these studies or a particularly strong attack may be revealed.(Evangelista, 1996).

Statistical Analysis

All statistical analyses were calculated by the SPSS.V.16 (Statistical Package for the Social Sciences). The results are reported as means and standard deviations (SD). T Test was used to compare group means in variance analysis results that were found statistically significant. Differences in means were considered if p,0.05

Results

Table 1.Age,anthropometric characteristics and training experience of the twogroups (Mean ± SD)

Group	N	Age [years]	Weight [kg]	Height [cm]	BMI [kg/m^2]	Training experience
Tall fencers	7	21.20 ± 1.2	74 ± 3.9	183 ± 4.1	23.5 ± 1.8	11.27 ± 2.5
Short fencers	5	21.11 ± 0.9	71 ± 3.1	175 ± 4.2	23.3 ± 2.1	12.06 ± 2.3

Table 1 shows the age and anthropometric characteristics of the subjects. There were no significant differences were observed in the anthropometric characteristics and Training experience except height for the subjects in the two different groups.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
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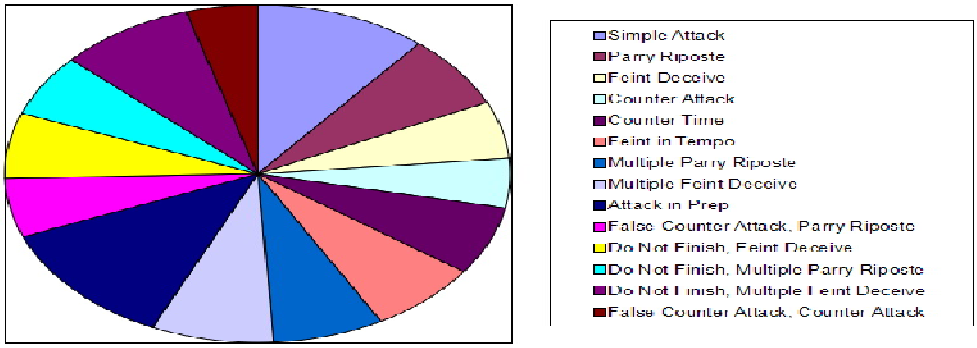
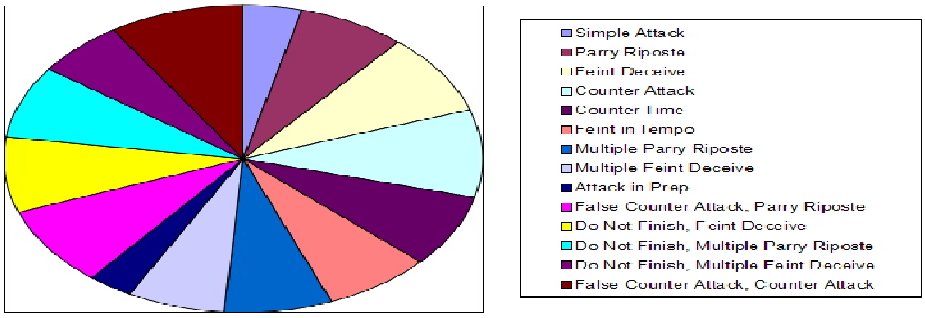
Tall fencers



Short fencers



Discussion

Each fencer is characterized by its unique physical and physiological demands in different high, and the fencer puts his strategy according to his physical abilities.

The tall fencer tries to benefit from his high , so , he used the distance strategy but the short fencer used the timing (tempo).

(Czajkowski, 2005) noted that the expression "tempo" (literally, "time" in Italian) originates from the XVI century Italian rapier play. When a fencer made a movement to cut to the head, and his opponent executed a very fast cut to flank, they called it "tempo" (of course, it is stop-hit). If somebody attempted to execute a stop-hit – "tempo" – and his opponent counteracted it by a stop-hit with opposition, it was called "tempo contra tempo" – the origin of contemporary counter-time, understood as an action against a counterattack. In later years, the expression "tempo" lost its meaning as a stop-hit, and began to be used to describe a sense of surprise (and stop-hit in opposition was called "colpo di tempo" – time-hit). Since then, the expression, "to attack in good tempo," has come to mean to attack, taking one's opponent by surprise. It is not a very fortunate description as everything we do occurs in time, and the success of an attack depends on lightning-like speed assessment of the situation and surprising the opponent by immediate action.

Athletes are required to be strong physically as well as mentally and emotionally. Psychological preparation is an important part of any athlete's regimen, and athletes that take part in combat sports such as fencing require a great deal of fortitude, determination, and mentaltoughness. There are many resources available to athletes that can help them with their psychological preparation, including coaches, books, and sport psychologists. (Czajkowski, 2007)

The shorter fencer should make use of these resources to help give him the tools necessary to fence well against all opponents, including those who may attempt to use their greater size and strength to intimidate their shorter opponents. The coach may, in his lessons, attempt to desensitize his student to intimidation techniques, by, for instance, and rushing forward at his student unexpectedly.

An important factor in any bout is the scoring of the first touch. To the one who scores goes not only the lead in points, but also a variety of feelings, including Accomplishment, relief, and joy. This boosts confidence and helps fuel the upcoming touches. The opponent, was scored upon, does not feel these effects. He may shrug it off and just focus on getting the next touch, as he should, or he may feel a varietyof negative

feelings, such as regret, frustration, anger, anxiety, and a partial loss of hope. (Paul, 2008)

Considering this, and considering the aforementioned psychological advantages andDisadvantages that are related to height differences between opponents, particularly Between opponents who do not know each other well, it is very helpful for the shorter Fencer to get the first touch. If he doesn't, the taller fencer's confidence is boosted.

Conclusion

The characters of short fencer

a. Lack of reach means attacking or counterattacking to deep target without controlling
b. The opponent's blade is risky if not suicidal.
c. Success requires greater skill than simply extending the arm.
d. A smaller frame may have less strength and mass.
e. May be required to be quicker and faster in order to be successful.
f. May be required to expend more energy during the bout in order to accomplish his
g. Goals.

The characters of tall fencer

a. The taller fencer has an advantage at greater distance because of his or her reach.
b. Long arms create longer trusts that aid all offensive and counter offensive actions.
c. With height there may be associated strength and mass.
d. Height and strength may aid in creating a psychological advantage.
e. Actions from the shorter fencer that normally would score with a single touch against
f. An opponent of similar height have a greater chance of ending in a double touch if the
g. Taller fencer counterattacks to the easy to hit the torso
h. Long lunges tend to be harder or slower to recover from.
i. If a long attack misses he's at risk.

Reference

Abbas, A., 1993, Epeefencing, the Arab Thought House, Cairo.

Abdel-Maksoud, S., Sanaa E., 1993, Modern Fencing, Dar Port Said to print, Alexandria.

Ashraf, M., 2002, Analytical study of the systems offensive play and defense of the World Cup for juniors 2001 in fencing (epee), the scientific journal of Physical Education and Sports , No. XXXVIII, Faculty of Physical Education for Boys in Cairo, Helwan University.

Czajkowski, Z., 2005, Understanding Fencing – Unity of Theory and Practice, Staten Island, New York:SwordPlay Books.

Czajkowski, Z., 2007, Taktykaipsychologia w szermierce, AWF Katowice.

Evangelista, N., 1996, The Art and Science of Fencing. Indianapolis: Masters Press.

FEDERATION INTERNATIONAL D'ESCREAM, (2002). Regalement pour les epreuves, Swiss

Ibrahim, N., 1984, The impact of exercise on the development of visual sensation of jousting distance to the rookies, research published : Sport for All Conference , Volume II, Faculty of Physical Education for Boys in Cairo , Helwan University.

Magda, M., 2000, Strategy game for the players duel and its relationship to the results of matches, Master, Helwan University, Faculty of Physical Education for Girls in Cairo.

Micahnik, D., 2003, Epee: The Long and the Short of It." Demonstration at the PhiladelphiaUSFCA AGM.

Mohamed, HA., 1987, Sportspsychology, 7th Floor, Knowledge House, Cairo.

Moses, A., 1985, The art of karate, Arab Publishing and Distribution, Cairo.

Paul Sise J., 2008, Height Differences in Epee Fencing and Strategies for the Shorter Fencer, A thesis submitted in partial fulfillment of requirements for certification as Fencing Master.

Sami, S., 2000, Time offensive strategy and its impact on the level of achievement of the players duel,PhD, Faculty of Physical Education, Tanta University.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 177-182
Original article

TRAINING PROGRAM FOR THE DEVELOPMENT OF SOME COORDINATION ABILITIES AND ITS IMPACT ON THE LEVEL OF SKILL IN THE PERFORMANCE OF MODERN DANCE

SAYDA ALI BDEL AAL MOHAMED[1]

Abstract

Purpose The research aims to identify the impact of a training program for the development of some harmonic capacity and its impact on the level of skill in the performance of modern dance.

Methods female first graders, faculty of physical education, Beni Suef University on 2011/ 2012, of female students, the researcher selected a random sample of(40) female students, divided into two equal groups.

Results And emerging capabilities harmonic requirements of performance skills and differ from each other in their direction dynamic does not show capacity harmonic Kqdarat individually but are always associated with each other to be used in content installation total traffic are consistent also linked to capacity interoperability with other terms of achievement sports

Conclusions represented in physical abilities and skills, psychological and if what has been coordinating the work of these capabilities possible to achieve the highest level of synergy required for the outstanding performance of motor skills and motor control exactly.

Key words Training program- dance- Coordination.

Introduction

And emerging capabilities harmonic requirements of performance skills and differ from each other in their direction dynamic does not show capacity harmonic Kqdarat individually but are always associated with each other to be used in content installation total traffic are consistent also linked to capacity interoperability with other terms of achievement sports represented in physical abilities and skills, psychological and if what has been coordinating the work of these capabilities possible to achieve the highest level of synergy required for the outstanding performance of motor skills and motor control exactly.

(Agnienszka 2005) Indicates capacity harmonic it is based directly on the level of each of the functional efficiency and morphological player where you can split capacity harmonic into two presidents and includes a first axis ability to organize motor which emanates from the regulatory processes of the performance of motor and can call on this axis the physiological basis or al-Qaeda second axis contains common capabilities which derive from the kinetics of functional, morphological and cognitive processes, and represents both axes of the utmost importance in the field of sports.

(GIassour 2003) harmonic capacity that can be viewed through its motor boat or orientation or shape your systolic where these aspects are integrated in a single frame at the harmonic capacity development

This is confirmed by (Heba 2005) that the harmonic capacity is directly related to performance skill of the player as they affect it and affected by it.

Agree (Mahmud, 2006) that the evolution of the level of capacity interoperability plays an important role when the acquisition and mastery of motor skills and therefore the targeted training leads to determine the quantity and quality of capacity harmonic to be met by the player therefore share capacity harmonic and motor skills in shaping the foundations of interoperability to achieve the desired level implementation of the motor performance.

Adds (Raczek 2000) capacity harmonic require their particular skills in complex installation, as well as skills vehicle, where you need those skills at an advanced level of control and monitoring of performance, and this is provided by the capacity harmonic at the development, which is reflected on the availability of a high rate of seizure and control through the motor performance.

Adds (Homage1991) that the availability of a good level of capacity harmonic player has lead to a reduction of the time required to learn and acquire motor skills and are thus the performance of motor skills economical in energy expended and that the level of harmonic higher can be the player of the diversity of performance skills in various sports activities

Zainab (2001) And dance inventive modern as types of speech motor is a new development of art Old stemmed from inside the dance expressing the scenes than in the same Khaljat using the body as an

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instrument, movement and means the organization to communicate ideas beside it provides an opportunity for the growth of physical and emotional and mental because it uses the mind and the body and the senses during the dance

(Teresa 2005) (Mechling 2000) The dance inventive modern art innovative modern uses the body as a tool for expression and this new kind of dance shows through different movements and multi carried out by the body within the limits of potential natural, and as the basis of the dance is the movement and the body is a tool used by the dancer to express the emotions of different limits their ability.

Added (Mohamed2006) And innovative modern dance serves as a complete and educational leads an important Droit and full sound education, where children gain the ability to self-expression with meaning and significance of which are appointed by the High estimate values and a deep sense understanding of what is going on around them.

(Petra 2002) The dance inventive modern type of art based on the use of movement as a means of expression as a result of the organization of voluntary happen to respond to re-select the values emotional given the individual a new entity, and choose the movement of expression by accurately and then designed and organized by configuring rhythmically and the result will be connecting an idea or a feeling or emotion emotional honest.

Add (Julius 2005)(Karen 2002) innovative modern apart from the rest of the kinds of dance other providers in the form of theatrical performances in the latter depend primarily on factors help represent the decor, lights and all directly affect the picture aesthetic that provides the display, while the offers innovative can dispense entirely for any of these items help it depends on all rely on the ability of the performer and the impact of viewers have seen most of all their feelings to the point of them convinced that what is being offered them represents sincere feelings and emotions consistent with the emotions and passions of humanity in general

The properties are also used for the members of the different body in conditions of natural so as not forming part of the body constituted a particular may get used to the individual in his public life, also note that the steps ballet dancers in the normal course, and the dance inventive modern unique that the movement which start from a central point in the body we called (Muscular Center), including appropriate movement begins from the center of the body to the rest of its members until the parties what is inside the individual expressive of feelings and sensations

And dance inventive talk can lead moves through a series of basic movements Fundamental forms of movements which are divided into two types of movements, one lead of stability Non Locomotors Movements and is in the rotation turns and Fall Fall and Balance Balance and tide Stretch and bounce Bounce and weighted Sluing

And dance inventive modern gives students many opportunities to create consistency and fitness increase on the development of musical talent and art in general, as it paves the way to participate in the various activities that may accrue to the student and the community benefits enormous, and more than that it awakens the power of imagination when an individual.

And dance inventive modern easy and pave the opportunities for everyone to develop their level sports, social, technical and mental, it helps in creating the ability to find harmony between the body parts and the performance of different movements performed by the whole body within the limits of its capabilities and abilities to maintain their health in general.

Through the previous display note discriminate among dance creative talk many of the skills of the vehicle and the multiple and that must be sequentially and without interruption smoothly complete so as not to lose wholesale kinetic beauty in the performance which makes attention to the manner capacity harmonic of great importance in improving the capacity of the student to complete the sentence kinetic smoothly and beauty, prompting the researcher to carry out this study to know the effect of a training program for the development of some harmonic capacity and its impact on the level of skill performance of the motor sentences in modern dance.

Objective of this research:

The research aims to identify the impact of a training program for the development of some harmonic capacity and its impact on the level of skill in the performance of modern dance.

Research hypotheses:

1 - There are significant differences between the mean pre and post measurements in some capacity level interoperability and performance skill level inter creative modern dance for dimensional measurement with the experimental research group.

2 - There were statistically significant differences between the mean pre and post measurements in some capacity level interoperability and performance skill level inter creative modern dance in favor of the post measurement research group has control.

3 - There are significant differences between the averages of dimensional measurements at the research group experimental and control groups in some capacity level interoperability and performance skill level inter creative modern dance for the experimental group.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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Presentation and discussion of the results: -
Presentation and discussion of the first hypothesis

Table (1)
Significant differences between pre and post indices for the experimental group in the capacity harmonic variables and the level of performance skill n = 20

Value (v) calculated	Percentage improvement	The difference between averages	Dimensional measurement		Measurement		The unit of measurement	Variables
			Standard Deviation	SMA	Standard Deviation	SMA		
***20.34**	**%64.1**	**5.2**	**0.63**	**15.2**	**1.64**	**9.20**	CM	The ability to pinpoint accuracy situation
***2.88**	**%45.8**	**3.5**	**1.02**	**13.02**	**0.944**	**8.50**	Degree	The ability to adjust the motor rhythm
***25.4**	**%48**	**6.2**	**1.32**	**17.9**	**1.65**	**12.5**	Degree	The ability to unbalance motor
***27.69**	**%65.1**	**2.4**	**10.6**	**7.69**	**0.814**	**4.30**	Degree	Ability to organize motor
***28.21**	**%5.03**	**9.323**	**10.4**	**203**	**1.86**	**193.75**	CM	The ability to fast reaction
***25.3**	**%140.4**	**3.36**	**1.25**	**6.01**	**1.18**	**2.5**	Degree	The level of performance skill

Is clear from Table (1) There are significant differences between the mean scores measurements pre and post experimental group in the variables interoperability and performance level of wholesale kinetic dance creative modern under discussion and for measuring dimensional, ranging value v calculated between (17.23, 29.00), all statistically significant at the 0.05 level of significance.

The researcher attributes this improvement to the application of the proposed training program using the harmonic capacity under discussion that led to improve the level of performance skills through the development of the ability to link between the technical skills used in inter creative modern dance with the experimental group.

And high rates of improvement of the capacity of harmonic due to the positive impact of the group exercises, which included exercises odd and even which led to raising interest students and encourage them to further effort and thus raise the efficiency of the nervous system and increase the coherence between the sensory nerves affected by within the program and interdependence with the motor nerves (Spring 2001) And improved compatibility between the competent and other central nervous system on the one hand and between regions and muscles on the other hand has taken into account the Presentation and discussion of the second hypothesis:

researcher that lead movements compatibility with performance skills for inter dance creative in the form of training of the movement in the time constraints, as well as perform movements correlated followed by performance art.

In the view of the researcher that he is dancing creative one of the core activities in the curricula of schools of physical education for girls for his amendment to the behavior of its impact effective in the liberation of the nerve and the expression of feelings and emotions and the development of taste aesthetic movement, and that the practice of dance creative help to develop the elements of fitness of public and private for students, in addition to building body coordinated and integrated due to its movements from the diversity and the use of the whole body during the performance and improvement of this performance was a necessary commitment to the characteristics of inter dance creative what Pfiha of flow and consensus in the movement and this is what I tried researcher accessed via capacity development consensual.

And thus have been achieved first hypothesis, which stipulates no statistically significant differences between the mean pre and post measurements in some capacity level interoperability and performance skill level inter creative modern dance for dimensional measurement with the experimental research group.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
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Table (2)
Significant differences between pre and post indices for the control group in the capacity harmonic variables and the level of performance skill n = 20

Value (v) calculated	Percentage improvement	The difference between averages	Dimensional measurement		Measurement		The unit of measurement	Variables
			Standard Deviation	SMA	Standard Deviation	SMA		
***3.02**	**%9.29**	**0.68**	**1.32**	**10.11**	**1.61**	**9.25**	CM	The ability to pinpoint accuracy situation
***4.11**	**%8.42**	**0.80**	**1.58**	**9.50**	**1.120**	**8.70**	Degree	The ability to adjust the motor rhythm
***3.96**	**%10.84**	**1.35**	**1.47**	**13.8**	**1.60**	**12.45**	Degree	The ability to unbalance motor
***3.01**	**%8.88**	**0.40**	**1.69**	**4.90**	**0.650**	**4.50**	Degree	Ability to organize motor
***2.90**	**%5.14**	**5.5**	**0.95**	**199.0**	**2.20**	**193.50**	CM	The ability to fast reaction
***4.11**	**%66.6**	**1.66**	**0.94**	**4.00**	**1.2**	**2.4**	Degree	The level of performance skill

Is clear from Table (2) There are significant differences between the mean scores measurements pre and post to the control group in the variables interoperability and performance level of wholesale kinetic dance creative modern under discussion and for measuring dimensional, ranging value v calculated between (17.23, 29.00), all statistically significant at the 0.05 level of significance.

The researcher attributes this improvement to the regularity of students and Houdrhen the lecture to the process established within the college regularly and that led to an improvement in capacity received interoperability and performance skill level inter creative modern dance.

(Mahmoud 2006) And dance creative talk is the art of innovative modern uses the body as a tool for expression and this new kind of dance shows through different movements and multi carried out by the body within the limits of potential natural, and as the basis of the dance is the movement and the body is a tool used by the dancer to express the emotions of different Presentation and discussion of the third hypothesis: limits of their ability and potential, the dancer is to be and which are expressive movements depending on what the inside of a sense of feeling and response and previous experience

(Petra 2002) The properties are also used for the members of the different body in conditions of natural so as not forming part of the body constituted a particular may get used to the individual in his public life, also note that the steps ballet dancers in the normal course, and the dance inventive modern unique that the movement which start from a central point in the body we called (Muscular Center), including appropriate movement begins from the center of the body to the rest of its members until the parties what is inside the individual expressive of feelings and sensations.

Thus, the second has been achieved hypothesis which states no statistically significant differences between the mean pre and post measurements in some capacity level interoperability and performance skill level inter creative modern dance in favor of the post measurement research group has control

Table (3)
Significant differences between the indices remote for the experimental group and the control variables in the harmonic capacity and level of performance skill n = 40

The difference between averages	The control group		experimental group		The unit of measurement	Variables
	Standard Deviation	SMA	Standard Deviation	SMA		
***4.47**	**1.32**	**10.11**	**0.62**	**15.10**	CM	The ability to pinpoint accuracy situation
***8.42**	**1.58**	**9.50**	**1.01**	**12.4**	Degree	The ability to adjust the motor rhythm

***4.58**	**1.47**	**13.8**	**1.36**	**18.50**	Degree	The ability to unbalance motor
***3.97**	**1.69**	**4.90**	**10.3**	**7.10**	Degree	Ability to organize motor
***12.70**	**0.95**	**199.0**	**10.3**	**203.5**	CM	The ability to fast reaction
***4.47**	**0.94**	**4.00**	**1.12**	**6.01**	Degree	The level of performance skill

Is clear from Table (3) the presence of statistically significant differences between the mean scores of measurements Badaan for the two experimental and control groups in the variables capacity interoperability and performance skill to inter dancing creative and in favor of the experimental group, ranging value v calculated between (3.97, 12.70), all statistically significant at the level of moral 0.05.

The researcher attributes this improvement to the application of the proposed training program using the harmonic capacity under discussion that led to improve the level of performance skills through the development of the ability to link between the technical skills used in inter creative modern dance with the experimental group.

And dance practice creative requires capabilities and physical skill and high compatibility muscle and creativity kinesthetic feeling the relationship between time and space and emptiness and a sense of dynamic performance which is characterized by diversity, inclusiveness and makes the practitioner with a control muscle nervous high performance in the context of aesthetic technician compatible been streamlined series is consistent with the accompanying music, and this is only available from through harmonic capacity according to modern standards and methods.

And dance creative provides an opportunity for everyone to discover himself, knowing his innovative and is one of the areas in which they can be shown innovative capabilities and thrive, where a dance creative free and requires a set of innovative capabilities and high based on the direct expression, which would translate sensations and emotions of different the form of kinetic performance expresses this innovative capability.

And is characterized by dance creative also beauty creative which emerge from the movements of different and the accompanying rhythm crossing, feels practitioners and viewers beauty and real ينميه in them through interaction with the excellent performance of the movements expressive and formations and formations and music high-end Acaatha creative is also working on the development of mental qualities Kaltzkr attention and conservation and to respond to well it expands perception and grown innovation capability so it can be said that creative dance of the most successful and modern mental education.

And thus have been achieved third hypothesis, which stipulates no statistically significant differences between the averages of dimensional measurements at the research group experimental and control groups in some capacity level interoperability and performance skill level inter creative modern dance for the experimental group.

Conclusions

1 - applied to the training program of the experimental sample positive impact on the development of the different harmonic capabilities.
2- The training program is applied to the experimental sample positive impact on the level of skill in the sentence creative modern dance with the experimental group.

Recommendations:

1- In the light of the conclusions that depended on the nature of the study and the sample and the methodology used and the procedures have been followed and the results of the statistical analysis enables the researcher to identify recommendations that can be used as follows:
2 - harmonic attention to capacity development in the early stages Sunni.
3 - Insert training capacity within the harmonic content of training programs because of their effective impact in the development of the skill levels of performance.
4 - Apply the proposed exercises on the different stages of a Sunni from the rookies.
5 - Building battery of tests interoperability capabilities in the kinetic expression.

References

Agnienszka, Jadach, 2005, Connection between particular motor Abilities and Game Efficiency of young Female Hand Ball player" Team games in Physical Education and sport , Poland

GIassour, 2003, Coordination straining Basketball, Von Ressourcen ueber Anforderungen zu Kompetenzen, Dissertation, Verlag, Dr.Kovac, Hamburg ,2 003

Heba Abdel, Azim Hassan,2005, impact of the proposed educational program for the balance beam on the device capabilities and the level of harmonic performance skills for the students of the Faculty of Physical Education", Ph.D. thesis, unpublished, Faculty of Physical Education, Assiut University.

Homage, Hassouna, Nadia awash 1991, Creative Dance, National Library, Cairo

Julius, Kasa 2005, Relationship of motor abilities and motor skills in sport Games "the Factors Determining Effectiveness in team ".Faculty of Physical Education and sport, Communions University, Brat. Slava, Slovakia.

Karen, Cowan 2002, Movement exploration, creative dance, department of liberal studies, the arts, university of Wisconsin, Madison.

Mahmoud, Attia Bakhit, Yasser, Hassan Hamed: 2006, ess program using gymnastics inhibitions and its impact on some of the variables physical capacity harmonic vehicle for children of 9:6 years, scientific research publication, Assiut Journal of Arts and Sciences of Physical Education, Issue 23, C 2, College Physical Education, Assiut University

Mechling, 2000. Coordinative Abilities Chapter (7) in Psychology for physical Educators, By Auweeleet al, Human Kinetic, Cinetic, Champaing.

Mohamed, Lutfi al-Sayyid, 2006, Orts achievement training and work rules," the enter the book for publication,

Petra, Klein, 2002, Dance Therapy and Dance of Life", training programs, Further education, publication, copyright IIDT Petra Klein

Petra, Kuppers, 200 0" Modern Dance", St James Ency. Of popular clulture,

Raczek. J., 2000, Learning and coordination skills Rivista culture sportive, roma, .

Spring field, 2001 Dance bouts dance major, spring college.

Teresa, Zwierko Pitor, Lesiakowski , Beata Florkiewicz, 2005 Motor coordination level of young playmakers in basket ball . team games in physical Education and sort , Poland

Zainab, Iskenderun, 2001, Theoretical and practical bases for kinetic expression, unpublished memoranda College of Physical Education for Girls, Zagazig University.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 183-187
Original article

THE EFFECT OF USING TAI CHI CHUAN EXERCISES ON SOME PSYCHOLOGICAL VARIABLES AND SOME PHYSICAL ABILITIES IN MODERN CREATIVE DANCE FOR FEMALE STUDENTS AT FACULTY OF PHYSICAL EDUCATION BEN SUEF UNIVERSITY

SAYDA ALI BDEL AAL MOHAMED[1], MOKTAR AMIN ABDEL GHANY[1]

Abstract

Purpose The research aims at recognizing the effect of using Tai Chi Chuan exercises on some psychological variables and some physical abilities in modern creative dance for female students at faculty of physical education- Beni Suef University through:

Methods level of self-confidence for female students at faculty of physical education- Beni Suef University.

Results Tai Chi Chuan consists of a set of movements performing slowly and smoothly with specific order. It is derived from movements of birds and animals

The researcher observed-through her work as a teacher of motor expression subject at faculty of physical education-Beni Suef University- low physical level for female students that is shown from motor performances in the subject of motor expressing, and female students giving up performance as a result of little self confidence in performance and sense of alienation with the rest female students.

Conclusions leading the researcher to conduct this study in an attempt to recognize the effect of Tai Chi Chuan exercises on some psychological and physical variables in modern creative dance for female student at faculty of physical education- Beni Suef University.

Key words: Tai chi- psychological- exercises- modern.

Introduction

All over centuries, the art of Tai chi Chuan remains one of the most important ingredients in Chin culture; recently, this art began to acquire high popularity in west, where doctors advise to apply it as one of effective methods to prevent pressure by which man suffers in modern societies.

The term of Tai Chi Chuan in Chinese language means "absolute high power"

Tai Chi Chuan origins is due to traditional Chinese fighting arts.

But they are practiced to day in west as a mixture close to Yogi, and meditation.

Tai Chi Chuan consists of a set of movements performing slowly and smoothly with specific order. It is derived from movements of birds and animals

This is what (Lan, 2002; Li, F, Fisher ,2003) Ti Chi Chuan is based upon a theory stating that continuous exercise helps on training body for quick response in the case of a crisis.

Since movements concentrate on full relaxation and negative concentration, so it can be called "meditation during movement "that is said it is a cure for nervous system, agility gentle movements with deep breath types that are said they reduce both blood pressure, impulse speed.

This is what (Kreg, 1999) Tai Chi Chuan movements were designed to improve physical and spiritual aspects.

Mention (Zeanab, 2001) It improves body awareness and strength, and work on coordinating between them to achieve inner peace of fractioned to reach high possible degrees.

Low level of sport activity helps on benefiting states of cardiac vessel where it is shown that deep breathing contributes in lowering breath function.

It is a wide range problem between eldest, and helps those who suffer from arthritis, because movements can reduce sclerosis and improve flexibility

The other benefit of practicing Tai Chi Chuan is that it regresses risks of injuries, Tai Chi Chuan movements are not very active and performed with very slow, they don't need a big hall but a distance of (10) meter to perform exercises.

This is what (Abdel, 2005) Creative dance as one of motor expression types is considered a new development of ancient art stemming from dance expressing viewer's emotions using body as a vehicle and movement as an organized method to communicate thoughts beside it provides an opportunity for physical, emotional and mental development because it uses mind, body and sensorial during dance

This is what (Fatma, 2009, Hussein, 2008) Modern

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dance movements can be performed through a set of basic movements divided into movements performed from steadiness representing in turns, falling, balance, extension, rebound, and swing.
Transition movements represent in hop, jump, running, walking, horse step, sliding, joggling

This is what (John, 1999) Creative dance influences general coordination of female student personality, for it provides her strong will and determination, s well as accuracy and order for what it's exercises left of good traditions during practicing sport in addition to develop physical fitness and improving psychological state of female student.

Psychological factor is considered basic factor in achieving winning and sport achievement, and in the forehead of psychological factors is emotional factor for female athletes, for it is one of psychological factor related with achieving winning and sport achievement, because emotional situations in sport competitions Psychologists, sociologists and researchers concerned with this concept and argued it's existence as a psychological and social phenomenon having it's negative effects on athletes in all individual and team sports with athletes personality in all games, influencing the extent of his continuity in training and competition.

Notes (Ramadan 2008) Alienation has multi symptoms, that are estrangement, lone lines, sense of helplessness, and inability to establish social relationships, sense of weak connect with his real self, inability to adhere to values and norms, can't express his thoughts and feelings, since alienation differs in it's severity for athletes, when it's severity increases this leads to low level in sport results that force athlete to communicate in training to achieve high sport results.

(Mohamed 2008),(Mihay 2003) Alienation of athletes makes them characteristic of inability on communication in performing sport skills in a good and precise way, because he is confuse, and cannot coordinate between movement aspects and its different dimensions leading to disappointment in achieving sport results because of not feeling of belonging to the group. alienation is not just a case related with one athlete that other, but alienation is present for athletes as a result of psychological and social circumstances in which they experience and face several crisis, conflicts, their feeling of loneliness and weak social relationships, hence they display a desire in escaping from the reality in which they suffer from isolation, and not feel of belonging to the group, so negative effects appear on their personality that lead to non sport coordination on one hand and on the level of achieving sport achievements
Studying self-confidence level o female students at faculties of physical education is very important, since have n influence on physical, skilful and tactical state of athlete for it t\it considered a complete response of human creature relying on perceiving external situation.

Physical and physiological changes occur in internal systems of human body.

(Flores 1995) Alienation is considered one of emotions relating with athlete personality, so it influences his relation with athletes and his continuity in training.

It is noteworthy both(Terce2002, Thomas 2000) Alienation may have clear effects representing in oddity of his thoughts, emotions and his sense of helplessness in performing skills, so it influences positively or negatively on motor performance This is what (Mohamed 2005) confirmed that alienation is one of psychological concepts related

it contributes in knowing positive-negative behaviors of female student and recognizes the extant of possible achievement that can be obtained in school aspect
Self-confidence is a psychological concept developing for the individual by experience, practice and perception.

The researcher sees that several athletes believe that self-confidence is athlete anticipation to achieve success and winning based upon competition situations objectively that appear on the athlete during sport competition and what re things in which athletes make to achieve success

Through the researcher's acknowledgment of previous studies such as Seedy Nour El Din indicating the importance of using Tai Chi Chuan exercises physically and psychologically, particularly, they are simple exercises performing collectively that leads to support the relationship between female students which in turn influence working in reducing alienation level and increasing the level of self-confidence.

The researcher observed-through her work as a teacher of motor expression subject at faculty of physical education-Beni Suef University- low physical level for female students that is shown from motor performances in the subject of motor expressing, and female students giving up performance as a result of little self confidence in performance and sense of alienation with the rest female students, leading the researcher to conduct this study in an attempt to recognize the effect of Tai Chi Chuan exercises on some psychological and physical variables in modern creative dance for female student at faculty of physical education- Beni Suef University.

Goal of the research:

The research aims at recognizing the effect of using Tai Chi Chuan exercises on some psychological

variables and some physical abilities in modern creative dance for female students at faculty of physical education- Beni Suef University through:

1-ecognizing the level of some physical variables (muscular strength – balance – flexibility) for female students at faculty of physical education- Beni Suef University.

2-ecognizing the level of alienation for female students at faculty of physical education-Beni Suef university.

3-ecognizing the level of self-confidence for female students at faculty of physical education-Beni Suef University.

Hypotheses of the research:

1-here are statistically significant differences between means of pre-post measurements in the level of some physical variables (muscular strength – balance – flexibility) for female students at faculty of physical education – Beni Suef University.

1-here are statistically significant differences between means of pre-post measurements in the level of alienation

or female students at faculty of physical education- Beni Suef University.

2-here are statistically significant differences between means of pre-post measurements in the level of self-confidence for female students at faculty of physical education- Beni Suef University.

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Table (1)

Differences significance between pre-post measurements for the experimental group in physical variables under research

Measurements	Variables	Measurement unit	Pre measurement		Post measurement		"T"value	Differences significance	Improvement rate	significance
			Mean1	Standard deviation	Mean 2	Standard deviation2				
Physical	Muscular strength kg	kgm	27.4	13.3	33.8	3.22	2.98	6.4	18.9%	significant
	Flexibility	Centimeter	8.5	2.01	12.5	2.25	2.89	4.00	32%	significant
	Balance	second	12.5	1.15	18.5	1.95	2.26	6.00	33.4%	significant

Tabulated "T" value at level 0.5=2.14

It is shown from table (1) that there are statistically significant differences at level of 0.05 between pre-post measurements for the experimental group in the level of some physical variables where calculated "t" is greater than tabulated "t"Value at significance level (0.05).

Table (2)

Differences significance between pre-post measurements for the experimental group at level of alienation under research

Measurements	Variables	Measurement unit	Pre measurement		Post measurement		"T"value	Differences significance	Improvement rate	Significance
			Mean1	Standard deviation	Mean 2	Standard deviation2				
Alienation	Social loneness	Score	52.10	5.52	50.7	5.5	2.25	1.4	-2.6%	significant
	Helplessness	Score	42.00	8.55	38.5	8.89	2.26	2.5	-2.7%	significant
	Negativity	Score	36.50	8.50	33.3	8.60	2.30	3.3	-8.5%	significant
	Non meaning	Score	49.30	10.6	47.7	6.90	2.65	1.6	-3.2%	significant
	Rejection	Score	46.90	6.62	49.9	5.40	2.34	0.4	2.58%	significant

Tabulated "T" value at level of 0.05=2.14

It is shown from table (2) that there are statistically significant differences at level (0.05) between pre-post measurements for the experimental group in the level of alienation where calculated "t" value is greater than tabulated "t" value at significance level (0.05).

Table (3)
Differences significance between pre-post measurements for self-confidence under research

Measurements	Variables	Measurement unit	Pre measurement		Post measurement		"T'value	Differences significance	Improvement rate	Significance
			Mean1	Standard deviation	Mean2	Standard deviation2				
Self-confidence	Self – confidence	Score	31.5	3.18	35.5	2.98	2.35	4.00	11.2%	significant

It is shown from table (3) that there are statistically significant differences at level (0.05) between pre-post measurements for the experimental group in the level of self-confidence where calculated "T" value is greater than tabulated "T" value at significance level (0.05).

Secondly: discussing the result:

It is shown from table (3) that there are statistically significant differences at level (0.05) between pre-post measurements for the experimental group in the level of some physical variables (muscular strength – balance – flexibility) on behalf of post measurements for the experimental group.

(Song, 2003,Tarek, 2004) Both the researchers attribute these differences in the level of physical variables that Tai exercises movements are similar to dance movements and rely in the first place on developing balance and flexibility in performance and the nature of Tai exercises that require very slowness' during performance.

Homing adds that Tai exercises should be performed with gravity distributed with a rate of (70:30%) on legs, that is pivot is on leg and the other one supports to help performance in a good way that make some call it balance exercises for it's contribution greatly in developing balance for their parishioners.

argue that Tai Chi Chuan are exercises performed in dance institutes and schools under the name of "slow dance", because it's movements are similar with dance nd ballet dancers use item as a mental and physical warm up before starting dance

It is shown from table (1) that level of alienation for female students at faculty of physical education (experimental research sample) is lower than alienation of the research control group.

Variance rate for the experimental group range between (0.547%, 3.245%) where as for the control group (0.688% , 4.93%).

Both the researchers see this improvement in alienation sense for the control group occurs as a result of regularity in the suggested Tai Chi Chuan program.

Practicing sport in general plays an efficient role on psychological aspects for parishioners especially girls since précising team exercises and contacts with peers generate the spirit of cooperation and joy between practiced individuals and sense of loneness and alienation reduces.

This study accords with (Mohamed, 2005) hat psychological alienation is one of psychological concept related with athletes personality in all sport games nd influences the extent of his contiguity in training and competition.

(Mohamed,1998) Over coming it is one of the most important basic requirements to continue in training, and practicing simple team exercises is considered one of aid methods in reducing the level of alienation.

It is shown from table (3) that there are statistically significant differences between mean of pre-post measurements for the experimental group in the level of self-confidence on behalf of post measurement for the experimental group, and that athlete's self confidence is one of efficient factors in which it's effect is reflected on the group as a whole of this (Essm2002) indicates that it is a psychological skill needs to training and practicing like sport skills and it can be developed by several matters among them are, developing cooperation spirit between group as a whole by practicing some simple and group exercises between team during practice periods.

Conclusions:

1-here are statistically significant differences between means of pre-post measurements in the level of psychological alienation for female students at faculty of physical education-Beni Suef University (the research sample).

2-here are statistically significant differences between means of pre-post measurements in the level

of self-confidence for female students at faculty of physical education Beni Suef University (the research sample).

3-here are statistically significant differences between means of pre-post measurements in level of some physical variables (muscular strength – flexibility – balance) for female students at faculty of physical education- Beni Suef Univesity (the research sample).

Recommendations :

1-sing Tai program for it's positive effect on psychological and physical aspects.

1-onducting similar other researchers by using Tai programs on age stages and other variables.

2-he necessity of providing appropriating group educational climates for it's positive effect in the process of learning motor skills in creative dance.

3-he necessity of using enhancement principle because it helps in getting rid of errors and improving skilful performance in creative dance.

References

Abdel Rahman Ads, Mohy El Din Tok 2005 Access to psychology, editioner, Dr El Feker for printing publication and distribution, Oman.

Essm Mohamed Abdel Reda 2002, psychological security and it's relation with level of emotional excitement of baskebll athletes, A master thesis, El Mousel University, Faculty of physical education.

Fatma Salah Goma 2009, The effect of a mental physical program by using Tai Chi Chuan on developing some variables of Kinesthetic and performance level of Albomaza in Taekwondo sport, A master thesis, faculty of physical education, Zagazek university.

Hussein Wally Hussein Taleha 2008, The effect of exercises program of Chinese Tai Chi Chuan on speed recovery for athletes of some individual fencing", Amaster thesis, faculty of physical education, Tanta university.

John Cheng 1999, Tai Chi Chuan A slow Dance for health, The physician and sports medicine – vol27- no 6- junel.

Kreg Mucc 1999: Effects of tai Chi Chuan practice, Tai Chi magazine, August vol (13)no(4).

Lan, C: Lai, J.s:Chen, S.Y. 2002 Tai Chi Chuan: an ancient wisdom on exercise and health promotion, sports medicine (Auckland,N.Z.)>

Li, F Fisher, K.J; Harmer,m p; 2003 Shirai, M. A simpler eight-from Easy Tai Chi for elderly adults, Journal of aging and physical activity (Chamaign, I11.), Apr.11(2).p.

Mahmoud Rageb 2005 : Aliention types, magazine of contemorry think , Ministry of national gguidance, n (0.5), Cairo.

-Mihay,L, Iltzsche, E. Tribby, A2003 Balance and perceived confidence with performance of instrumental activities of daily living: a pilot study of tai hi inspired exercise with elderly retirement community dwellers physical occupational therapy in geriatrics Binghamton

- Mohamed Fatehy Youssef El Bahrawy 2008 The effect of Tai exercises inside water on balance and some kinemtic variables of crawl swimming, published scientific research, conference of physical education faculty, Alexandria.

Mohamed Knodear Abdel Moktr 1998 Alienation and extremity towards violence, psychological, social study, Cairo,Dar Ghareb

Ramadan Yassean 2008, sport psychology, Usama house for publication and distribution, Oman

Song R, Lee Eo, Lam p, Bae Sc. 2003, Effects of tai Chi exercise on pain, balance, muscle strength, and perceived difficulties in physical functioning in older women with osteoarthritis: a randomized clinical trial, J Rheumatol. Sep

Tarek Ali Ibrahim 2004, The effect of a suggested program of Chinese Tai exercises on some electro physiological variables (electrical brin activity), A master Thesis, Faculty of physical education, Alexandria University.

Terce Odesho Anoya 2002, Athlete's index for psychological preparation, Oman, Wael publication house,

Thomas et al. 2000, dancing bees tune both duration and rate of waggle production in relation to nectar – source profitability, journal of comparative physiology, vol (186), issue (9).

Flores 1995 : Dance for health, improving fitness in African American and Hispanic adolescent, public health, journal. Vol (110) issue (2).

Zeanab Al Esknarany, 2001 Theoretical and practical bses of motor expressing, unpublished diary, fculty of physical education for girls, Zagazek university.

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
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Science, Movement and Health, Vol. XIV, ISSUE 1, 2014
January 2014, 14 (1): 188-199
Original article

THE RELATIONSHIP BETWEEN PSYCH ALIENATION AND SPORT ACHIEVEMENT MOTIVATION FOR STUDENTS OF SPORT TALENTED SCHOOL IN CAIRO, EGYPT "A COMPARATIVE STUDY"

ZAHRAA ABD EL MONEIM MOHAMAD ALY AL SHARKAWY

Abstract

The purpose of this study was to identify the level of psych alienation, sport achievement motivation and correlation between psych alienation and sport achievement motivation for students of sport talented school in Cairo, Egypt, Ages between 13-18 years, individual(n=42) and football (n=5) sports. Search tools were Sport achievement motivation inventory and Scale of Psych alienation.

Methods. Subjects are between 13-18 years, individual(n=42) and football (n=5) sports groups.

The results showed differences in favor of football talented on lack of meaning, motive of success achievement and sport achievement motivation, and inverse negative correlation between psych alienation and sport achievement motivation, the findings support need to conviction of utmost importance of psychological preparation for sport talented students from Officials of sport talented school, commitment to equality and justice in all the privileges offered to all sports alike according to the effort not to sport type, and provide study care for those talented because of its positive impact on the progress of their sport levels.

Conclusion. There is a relationship between psych alienation and sport achievement motivation for students of sport talented school in Cairo.

Keywords: psych alienation, sport achievement motivation, lack of meaning, success achievement, Non-compliance of standards.

Introduction

The Olympic Games is considered the largest social movement in history and the medal reflect for the state's ability to manufacture a hero who the world seen (Egyptian Olympic Committee,1995), Achieve Olympic medal requires special care may more than ten years,So the preparation of young talented in the sports is proceeds of many efforts will not achieved without scientific planning, and clear organization(Essa meddin ,1983).So the National Sports Council put a new strategy for the advancement of sports in Egypt through the establishment of talented sports schools in the Arab Republic of Egypt, which works to serve the championship sector in Egypt through the preparing a generation of young people to become a broad base of talent in preparation for the selection of best to be attached National teams on an ongoing basis (http://www.elmawhoobeen.com).

As a result of the growing sophistication of Sport Psychology in its various aspects made it necessary to look for strategies to solve the problems which face young people in the practice of sporting activities, whether in training or competition in order to help him cope with stress, improve athletic performance, enjoy their rights in the practice of sports activity (Ibrahim, and Ayman, 2009).

Motivation is one of the important psychological variables to achieve physical, mental health and sporting achievements, it is a condition which excite, stimulate and guide behavior and working on its sustainability, the athlete who believes that the exercise did not help him to reach any level of feel helplessness In need of guidance because they will move away from Physical and Subscribe sports activity (Mohammad,2012). The individual differences factors, such as the efficiency, independence, physical and the cultural, social values factors associated with self motivation (Hassandra, Goudas, Chroni, 2003). Put objectives is effective means of motivation to help athlete a sense of satisfaction, self-confidence, self effectiveness, good positive emotions, So, sport educator should allow them more time for recreation and closer fraternal relations with colleagues to develop motivation factors for practitioners positively (Mohammad, 2012).

Alienation has become one of the most problems traded in foreign literature, which seeks to address the social problems of modern societies, where considered the phenomenon of alienation special case for person in modern society which became essential subject in many social and philosophical researches(Mohammad,1997), commonplace in manysocieties, regardless of the ideolo gies, economiclevel and material, technological progres s(Jawad, 2005), Alienation's symptoms is loneliness,

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helplessness, inability to establish social relations, the deficit to uphold the values and standards, and cannot afford to reveal the thoughts and feelings (Nasima, 2011), "Also,Hamid Zahran,2003 has indicated that the individual who has alienation biologically District and psychologically dead "(Amr,2007).It is from the emotions associated with athlete's character which affect his relationship with athletes and to continue in training, So, it is leading to frustration in achieving sports results, outcome of a sense of affiliation to the group, and facing many conflicts, his sense of loneliness and poor social relationships (Nasima, 2011).

There are many previous studies associated with the research subject showing an inverse correlation between psych alienation and each of,self esteem(Fadia ,and Fatima, 2010), academic adaptation(Yunesi,2011), psych reassurance(Adel,2004),and university students' trends about social conte-mporary problems (Attiyat, 1993); There is also inverse correlation between psych loneliness and between each of the social skills of dolescents (Hoda, 2010), personalitytraits, confidence,independence, proactive, achievement, identity, intimacy, and flow (Algawharah, 2005); the feeling of alienation means relative separation self or society or both represented in the sense of isolation status, lack of adherence to standards and rebellion against the self and society (Amr, 2007);the practice of sports activities limit the phenomenon of alienation, and the level of alienation among practicing students for collective sports activities less than practitioners of individual activities(Ashraf,1995); also emphasizes the importance of having friends in stimulus climate to ensure the continuation of youth in sports (Joesaar, Hein,Hagger,2011);Competence,independence and relationships promotes self-motivation, mental health and have significance in the sports field(Richard, and Edward,2000); the individual who suffers from psych loneliness who feels the sole despite the many around him, in need of friends, he does not have whom shared his ideas and interests, does not have friendlinessand friendship, and it feels neglected by othe rs(Ali and Mohammad,1988).

Of the challenges facing the progress of the Olympic Movement is the deviation from the objectives of the international Olympic Movement non-interest in the development of physical and moral attributes, which is the basis of the sport, the use of unfair methods to scramble to win such as the participation of injured players, and the involvement of semiconductor men(broker gender)in females competitions, In addition to athletes who use dope and win fraud and deception, the recruitment of child Men and girls at the age of kindergarten and beyond for sports activities and games according to the violent programs of training in order to achieve sports victories, even if at the expense of depriving them of their childhood and is expected with the continuation of this situation the parents will fight of these sport movement, which were not so before, and negative Medical ,Health impact at some athletes in the higher levels, such as weight lifting and throwing Champions train daily and have for more than twenty tons of weights, swimmers who are exposed to compete and swim dozens of miles a day or runners who are serving in the stadiums, roads, dozens of hours , it all affects their health in the present and future and is given unhealthy and inhumane models those who practiced sports(Scientific Conference,1994).The nature of life in sports talented school may become stressful on talented because of routinely life, require from talented sacrificing many things for Sport Excellence, such as stay away from family and friends ,away from freedom of life in general, and this any individual could not afford, it was found that there are some cases could not continue at the school for their association severe with their parents, also found cases of rebellion and worse behavior, the absence of a psychologist permanent presence in school, and that the age group targeted in this school 12:18 Year of the most dangerous and the most important stages of age to be considered adulthood and adolescence because of body, mind, emotional social move between childhood and young adulthood stage, and it is important to form individual personality(Osama, and Ibrahim,2005). These reasons may be prevent the main goal achievement of these schools, and as the psych alienation, psychological and social problems might be exposed to athletes not to feel psych security, their sense of loneliness and isolation which cause lack of orientation towards training and lack of contact with their athletes, and thus failure to achieve Sport results hoped for, depriving the sports community special and the entire community General of enormous energy could be employed to serve it, so the researcher opinion to protect these talented, and to ensure the achievement of the objective of the establishment of these schools need to conduct this research .

Current search reveals psych alienation phenomenon that may happen to sport talented students, to avoid negative effect in their Sport performance, and to ensure access to the international achievement without wasting money and effort to no avail. The age of talented students is the important stages in the society because they are the future leaders so, must concern for them from all aspects not only from the side of grades or sports side while must extend to the psychological side. According to the results of current research in practice in directing Officials attention of the Schools of sport talented on Arab Republic of Egypt that sport psychologist should be found there to measure psych alienation of students to know the problems early that

may arise for them to develop a strategy and psychological preparation, guidance program contributes to reduce the feeling of this alienation. Early treatment of the causes that may lead to the emergence of the psych alienation phenomenon between the students of sport talented school.

Hypotheses

There are statistically significant differences between individual and football sports for students of sport talented school in psych alienation, and achievement motivation, There is a statistically significant negative correlation between psych alienation and sport achievement motivation for students of sport talented school in Cairo, Egypt.

Procedures

Society and sample of research

The research community 117 students from sport talented School in Cairo, Sample was chosen randomly 47 students who ranged in age between 13: 18 years, practitioners of individual sports, wrestling, Boxing, Judo, weight lifting, Taekwondo, Athletics and football sport (see table 1).

Search Tools

Article V. Search tools were Sport achievement motivation inventory by (Mohammad, 1998) and Scale of Psych alienation by researcher.

Validity of psych alienation:

Logical validity of Arab and foreign scientific references, studies, researches, and personal interviews with a number of specialist professors, and some of coaches who work at the School of sport talented as well as some talented, **Experts'validity**(n=7) they approved unanimously on these dimensions(lack of meaning, social isolation, thing, non-compliance of standards ,rebellion), while approved by 85.7 % change the expression of the sense lack ability dimension to sense of helplessness),Put 86 phrases and displayed it on experts, the number of scale's phrases 79 (see table 2). **Internal consistenc** between the dimensions and the total scale applied on pilot sample (n=10) students from the School (see table 3).

Reliability of psych alienation scale:

Article VI. Internal consistency was calculated between dimensions and the total of psych alienation scale on pilot sample (see table 4).

Sport achievement motivation inventory:

This inventory designed by Joe Willis 1982, Mohammed,1998 had arabization and rationing it in the Environmental Egyptian on samples from athletes, included two dimensions, motive of success achievement, motive of avoid failure, and 20 phrases (Mohammad,1998). Alpha Cronbach's coefficient was calculated for Sport achievement motivation inventoryon pilot sample (n=10) (see table5) . **Internal consistency** was calculated between dimensions and the total of sport achievement motivation inventory on pilot sample (see table 6).

Application of the research tools

psych alienation scale was applied on research sample(n=47) students from sport talented school 2010/2011, which contained 6 dimensions and 58 phrases, all phrases were positive in the direction of the dimension, and in accordance with the views of experts has been agreed on the balance trio estimate "Yes - 3 degrees," To some extent- 2 degrees"," No- 1 degree", has also been put levels to interpret scale scores measure as follows : "less than 40% means lack of capacity, from 40 to less than 70% means average level of capacity, from 70 to 100% means high level of capacity.

Sport achievement motivation was applied , consisting of 20 phrases,10 of them for motive of success achievement has marital numbers in inventory all of them positive in the direction of dimension except phrases number "4, 8, 14" and other 10 for motive of avoid failure has individual numbers all of them positive in the direction of Dimension except phrases number"11, 17, 19", and the balance estimate pentathlon in accordance with the positive phrases are as follows :"a very large degree -5 , large degree-4 , moderately degree -3, a low degree-2 , a very small degree-1", and vice versa with negative phrases which reverse dimension.

Results

Statistical results of psych alienation scale according to the sport type:

Table 7 The individual sports (n=42) had Lack of meaning, Social isolation, Rebellion psych alienation mean scores that were lower than football sport scores (n=5). With the exception of Sense of helplessness, thing, non-compliance of standards**.**

Table 8 Presents significance of differences between talented of individual and football sports on dimension of psych alienation scale.

Statistical results of sport achievement motivation inventory according to the sport type:

Table 9 The individual sports (n=42) had motive of success achievement, motive of avoid failure, sport

achievement motivation mean scores that were lower than football sport scores (n=5).

Table 10 Presents significance of differences between talented of individual and football sports on dimension sport achievement motivation inventory.

Table 11 Presents correlation coefficient between dimensions of psych alienation scale and Sport achievement motivation inventory.

Discussion

Discuss the results of first hypothesis:

According to the levels which experts agreed upon it to interpret psych alienation scale , Table 7 has shown average level of psych alienation for all students of sport talented school " individual and football sports" under discussion, while table 8 demonstrated that football talented had lack of meaning mean higher than individual sports . This difference may be due to the presence of justice and equality at sport talented school to various services and sponsorships provision "training, studying, Nutrition and other" for all the talented, regardless sport type, therefore football talent feels not distinguished from other sports in the privileges that give him as he used it in the community, where football sport features more attention of financial and sponsorship of any other sports especially individual sports, which can be called martyr sports , so these submitted services were less than who provides them in some clubs, while these services were suitable for individual sports they are better than no presence outside the school. Some players of individual sports resorting to participate in many places in one season to their need for money, which helps them to overcome aliving problems which affects their sport level(Khaled,2001),And their presence at this school achieve to them many privileges and services.

Researcher view that equality and justice of distribution for the various sporting activities and not only the sport specific and give the players all the privileges of physical, media, and training and other privileges without other sports instill moral values in our players and in of them as role models from our children and youth, (Kheireddine and Atta,1998); noted for not forgetting models supervisor of athletes from all sports with the values and ethics and who have made a lot of sporting achievements for Egypt and highlight them and focus on the positives so that they are role models the real members of the community in order to achieve affiliation true to the homeland, which reflects the importance of sport for goals. This underlines the lack of validity of this hypothesis which states "There are statistically significant differences of psych alienation between individual sports and football for students of sport talented school in Cairo, Egypt".

Discuss the results of second hypothesis:

According to levels of sport achieveme-nt motivation inventory to interpret it, table 9 has shown a high level of sport achievement motivation for all students of sport talented school "individual and football sports" under discussion, while table 10 demonstrated that football talented had motive of Success achievement and sport achievement motivation mean higher than individual sport. This difference may be due to confidence of football talented about importance of their sport and they had the attention of the entire community because their sport is the first popular sport, as may be attributed to their confidence in their access to financial privileged permanently even if they did not achieve international achievements as is customary in this community, as well as their access to media fame regardless of behavior ethical ,(Abdel Fattah, p.28) ; pointed to media concentration on football and football player is as ideals and role models for youth On the other side, we find boxing, wrestling, weight lifting of individual activities which are not very popular like football may be due to the omission of the media in various specialties to clarify the advantages and characteristics of these individual activities for youth and citizens",so it had recommended 2002 the need of the media attention of different individual activities and published its findings and public awareness of its importance, such as interest in the sport of football(Zahraa,2002). This confirms the validity of this hypothesis, which states "There are statistically significant differences of sport achievement motivation between individual sports and football of sport talented school in Cairo, Egypt".

Discuss the results of the third hypothesis:

Table11 has shown inverse correlation at significance level0.01 between psychalienaonand its dimensions" sense of helplessness, thing, Non-compliance standards, rebellion" and motive of success achievement , while there is a positive correlation statistically significant between the lack of meaning dimension and motive of avoid failure at significance level 0.05 , also found an inverse correlation statisti-cally significant between psych alienation and its dimensions "sense of helplessness - thing" and sport achievement motivation at significance level 0.05 ; and between the dimensions "non-compliance standards - rebellion" and sport achievement motivation at significance level 0.01.

These results confirm the negative impact of the phenomenon of psych alienation on sport achievement motivation for talented under discussion, (Shu-qi and Zheng-we, 2009); noted, that the phenomenon of alienation found as a result of the lack of ethics during the process of player industry.(Hua-bing and Li-yan, 2005); that the reasons which helped the existence this

phenomenon in sport, emergence of doping, arbitration injustice and cheating and the lack of the human spirit in sport. (Nagy,1999); noted to the importance of relying on sporting talent selection,interest in sport psychology in all sports, improve the role of the media in the industry and care for the hero, and fight against doping in order to access with Arab sports to world. psychological preparation protects player of the negative impact of the problems that might be exposed, reduces the time and effort expended in training, or falling of performance level , psychological preparation long-term planning begin once player involvement in training and lasts for periods of up to 10 years or more,it may continue until retirement Mufti,2001; Mohammed,1992;Osama,1997, confirmed the importance of a program to train psychological skills goes hand in hand with the development of motor skills, physical abilities and tactical aspects. where the International Society of Sport Psychology writing to all National Olympic Committees explaining the utmost importance to the presence Sport psychologist to work with the players and the sport teams, which can Guidance and counseling for the players, development of their psychological traits and skills related mental sport and Sport achievement motivation (Mohammad,2002). Conviction of player with importance of sport competition, a good knowledge of the requirements and conditions of the competition and rival; ensure there is no conflict psychological terms that the preparation of the player for important competition should not be limited to training and competition, but should be expanded its scope to include clarifying the future of study or work there are from important principles of psychological preparation long-term (Mohammad, 1992). On Olympics 1976 doctor A.Rogozkin of one sport teams confirmed that countries that provide their players with science that will win in the list Olympics competitions (Gap and Marshall, 1999). Sport psychologist plays an important role in realization of psychological needs for emerging, which enables him to face psychological pressures which are exposed through the sport with increased levels of motivation and desire to succeed and for the continuation of this practice, lack of fear of failure or withdrawal from the sport, psychiatric care for must be through an integrated system for all those around him during training and competition such as team group, administrators, parents, Trainers, sport psychologist, the public, Sport Supervisor, referee, activities Specialist (Ibrahim& Ayman,2009). Psychological tests are of particular importance in the various stages of the selection and serves as important indicators to predict the potential of emerging player in the future, it must be taking into account the psychological traits, trends and necessary psychological requirements to exercise a particular activity such as perseverance, insist to achieve objectives, overcome fatigue, self-confidence, the ability to make the decision, restraint, courage (Zahraa, 1996).

Researcher think that project of sport talented Schools from the important projects carried out by the Ministry of Sports in order to ensure access to athletes to the world, where this project cares of aspect of study next to the training, and recognizes the value of science for talented and its impact on their levels, the school exclude talented students who failed in the study or do any Immoral behavior regardless of their sport levels , and it must be attention psychological side and its importance for students of sport talented school because of its direct impact on their progress, respect for personal rights, and their physically ,mentally care and to enhance the moral model. This confirms the validity of this hypothesis, which states "There is a statistically significant negative correlation between psych alienation and sport achievement motivation for students of sport talented school in Cairo, Egypt".

Conclusions

Average level of Psych alienation has found for students of sport talented school, Statistically significant differences has found in favor of football talented at the lack of meaning dimension in Psych alienation scale, There were no statistically significant differences between talented of individual and football sport in the dimensions of psych alienation" social isolation, the sense of helplessness, thing, non-compliance standards, and rebellion" and psych alienation, High level has found of sport achievement motivation for students of talented school, High level of avoid failure and success achievement motive has found for talented of individual sports, High level of avoid failure and sport achievement motivation has found for talented of football sport, Very high level of success achievement motive has found for talented of football sport, Statistically significant differences has found in favor of football talented in success achievement motive, and sport achievement motivation, There were no statistically significant differences between talented of individual and football sports in avoid failure motive, Inverse correlation has found statistically significant between psych alienation, its dimensions(sense of helplessness,thing,Non-compliance standards, rebellion) and success achievement for students of sport talented school, Positive correlation has found statistically significant between dimension "the lack of meaning" in psych alienation scale and the avoid failure motive for students of sport talented school, Negative correlation has found statistically significant between the psychalienation,its dimensions(sense of helplessness ,thing,Non-compliance standards, rebellion) and sport achievement motivation for students of sport talented school.

Recommendations

Officials of sport talented school must convinced of the utmost importance of psychological preparation for sport talented students, It must be convinced of sport Psychologist as a profession, Sport psychologist must be presence constantly at sport talented school, It must be take advantage of the sport psychology professionals from physical education colleges, It must be take advantage of the psychological alienation scale under discussion to face any problems that could lead to poor sport achievement motivation of those talented, The need for commitment to equality and justice in all the privileges offered to all sports alike according to the effort and not sport type, The need to provide study care for those talented because of its positive impact on the progress of their sport levels, Need to focus on strengthen right behaviors for students of sport talented school, The need for talented selection not only from physical or skill side but also from psychological side, Media must be attention to the awareness of public to importance of individual sports, Officials must be attention the seriousness of the Sunni stage of those sport talented, and find out their psychological characteristics in order to deal with it in a way that ensures achieving the desired objectives, Need to focus on the humanitarian deal while teaching, training or life in general within sport talented school, Must provide sessions of psychological preparing to refine each individual deals with talented students, Must provide sessions for talented students to equip them with noble goals which upon the sport, and directing their attention toward the negative impact of doping and other forms of distractions which appeared in sport.

References

Abdel Fattah,F.K.(undated): Reference in boxing, Elmaaref facility, Alexandria, Egypt.

Adel,M.M.(2004) Alienation and its relationship to psychological security "field study" on students of Islamic Imam Mohammad bin Saud University in Riyadh, Mohammad bin Saud Islamic University in Riyadh, Master's thesis, College of Graduate studies, University of Arab Academy Naif for Security Sciences.

Algawharah,A.K.(2005) Psychological loneliness and its relationship to personality traits among a sample of Um El-Qura female students in Makka Almokarama, Master's thesis,Faculty of Education,Um AlQura, MakkaUniversi-ty,Saudi Arabia.

Ali,S.K. & Mohammad,M.S.(1988)Psychological loneliness and social relations, Journal of the Arabian Gulf, Office of the Arab Gulf States, Riyadh,8(25),pp. 119 - 150.

Amr,H.A.(2007)Psychological alienation among students of the Faculty of Physical Education in Mansoura, Internatio-nal Annual Scientific Conference of the Department of Sport Psychology"psyc-hological care for athletes",the scientific journal of Physical Education and Sport, Faculty of Physical Education for Men, Helwan University,Cairo,Egypt,p.355.

Ashraf,N.A.(1995) Alienation phenomenon and its relationship to sport activity practice for students of Al-Azhar University, Master's thesis, Faculty of Physical Education for men, Zagazig University, Egypt.

Attiyat,F.A.(1993)relationship of trends towards social problems with manifest-ations of psychological alienation in the light of Social and economic level, Master's Thesis, Faculty of Arts, Ain Shams University,Cairo,Egypt.

Egyptian Olympic Committee(1995) the Olym-pics, 6th issue - August.

Essameddin,M.B.(1983) A Study of the preparation of youth in the sport training field in Arab Republic of Egypt, Doctoral dissertation, Faculty of Physical Education for Men, Helwan University, Cairo, Egypt.

Fadia,K.H. & Fatima,K.A.(2010)psychological alienation and self-esteem of university graduates employed and The unemplo-yed, the Journal of the Umm al-Qura University of Educational and Psychol-ogical Sciences,2(2),pp.63-138.

Gap,M.& Marshall,H., translated byMohammad,K.B.& Thoriya,N.(1999)Your Guide to Sport Medicine, Book Center for publication, Cairo, Egypt.

Hassandra,M., Goudas,M. & Chroni,S.(2003) Examining factors associated with intrinsic motivation in physical education: a qualitative approach, Psychology of Sport and Exercise, vol. 4,pp.211-223.

Hoda,I.A.(2010) social skills and their relationship with symptoms of psychological loneliness amon g adolescent, Master's thesis, Faculty of Arts, Helwan University,Cairo,Egypt.
http://www.elmawhoobeen.com/inner2.php?id=3.

Hua-bing,W & Li-yan,Z. (2005): Reasons and countermeasures of sport Alien, Journal of Physical Education, 1st issue.

Ibrahim,A.K. & Ayman,M.T.(2009)Psychol-ogical care for sport young, Anglo-Egyptian library, Cairo, Egypt.

Jawad,M.A. (2005) Psychological Alienation and its relationship to mental health among college students Palestinian universities, Master's thesis,Faculty of Education,Gaza University.

Joesaar,H., Hein,V. &Hagger,M.S (2011) Peer influence on young athlete' need satisfaction, intrinsic motivation and persistence in sport: Psychology of Sport and Exercise,12(5), pp.500-508.

Khaled,M.L.(2001): Study of the problems and challenges facing the sport individual federations in Arab Republic of Egypt, Doctoral dissertation, Faculty of Physical Education for Men, Helwan University, Cairo, Egypt.

Kheireddine,E. & Atta,H.A.(1998) Sport media,1st part, book center for publicat-ion, Cairo, Egypt.

Mohammad,H.A.(1992) psychology of training and competitions,7th Edition, Dar Elmaaref, Cairo, Egypt.

Mohammad,H.A.(1998) Encyclopedia of psychological tests for athletes, the book center for publication, Cairo, Egypt.

Mohammad,H.A. (2002) The Psychology of sport training and competition, Dar Elfekr Elaraby, Cairo, Egypt.

Mohammad,H.A. (2012): Sport Psychology and physical practice, Elmadany Printing Press, Saudi establishment, Cairo, EgyptMohammad,I.B.(1997) the effectiveness of the psychological-physical program to reduce the level of alienation among some students of Physical Education Colleges, Doctoral dissertation, Faculty of Physical Education for Men, Helwan University,Cairo,Egypt.

Mufti,I.H.(2001) the modern sport training - the planning, implementation and leadership, 2nd edition, Dar Elfekr Elaraby,Cairo,Egypt.

Nagy,I.H.(1999) Planning in the Olympic sport federations in the light of Egypti-an sport strategies, Doctoral dissertati-on, Faculty of Physical Education for Men, Helwan University,Cairo,Egypt.

Nasima,A.S. (2011) psychological alienation and its relationship to learning a skill handstand in gymnastics among the female students in phase II, The Journal of Physical Education Science,4(3),pp.239-257.

Osama,K.R.(1997) Sport Psychology - Concepts - Applications, 2nd Ed., Dar Elfekr El-araby, Cairo, Egypt.

Osama,K.R. & Ibrahim,A.K (2005) Growth and motivation in guiding locomotor activity for children and sport school activities, Dar Elfekr El-araby, Cairo, Egypt.

Richard,R.M. & Edward,D.I. (2000) Self-determination theory and the facilitation of intrinsic motivation, Social development, and well-being, American Psychological association, American Psychologist, 55(1),pp.68-78.

Scientific Conference (1994) Sports and the principles of Olympic- accumulations and challenges, Faculty of Physical Education for men, Helwan University , 28-30 December, Cairo, Egypt.

Shu-qi,C.&Zheng-we,G(2009) Ethical contemplation of the alienation of competitive sports and the assurance of athlete's rights, Journal of Physical Education,1st issue.

Yahya,A.E.(2005) alienation "analytical study of the figures novelist Taher Ben Joloun",foundation of Arab Studies and Publishing, Amman.

Yunesi,K.(2011) psychological alienation and its relationship to academic adaptation of students at the university "field study" on sample of University Mouloud Mam-meri Tizi Ouzou students,Master's Thes-is,Faculty of Humanities And Social sc-iences, University of Mouloud Mamm-eri Tizi - Ouzou.

Zahraa,A.M. (1996) An Evaluation Study of the sports talented youth centers in Cairo Governorate, Master's thesis,Faculty of Physical Education for Men, Helwan University, Cairo, Egypt.

Zahraa,A.M. (2002) An Evaluation Study of some players Abstention in internation-al representation of Egypt in Some indi-vidual Olympic Games, Doctoral dissertation, Faculty of Physical Education for Men, Helwan University, Cairo, Egypt

Ovidius University Annals, Series Physical Education and Sport / SCIENCE, MOVEMENT AND HEALTH
Vol. XIV, ISSUE 1, 2014, Romania
The journal is indexed in: Ebsco, SPORTDiscus, INDEX COPERNICUS JOURNAL MASTER LIST,
DOAJ DIRECTORY OF OPEN ACCES JOURNALS, Caby, Gale Cengace Learning, Cabell's Directories

Table 1: the characterization of research sample.

Sports	Age						Total
	13	14	15	16	17	18	
Wrestling	1	5	2	3	1	1	13
Weightlifting	3	1	1		1		6
Boxing		1	1		3	1	6
Judo	2	5					7
Taekwondo	2	2	2	1		1	8
Football					5		5
Athletics						2	2
Total	8	14	6	4	10	5	47

Table 2 phrases of psych alienation scale on experts.

Dimensions	Phrases		
	Before	After	Deleted
Lack of meaning	19	17	8,11
Social isolation	14	12	4,11
Sense of helplessness	14	12	1,10
Thing	9	9	
Non-compliance of standards	12	11	8
Rebellion	18	18	

Table 3 internal consistency between dimensions and total of psych alienation scale.

Dimensions	Scale total	M	SD
Lack of meaning	0.957 **	27.40	4.60
Social isolation	0.957 **	22.20	4.98
Sense of helplessness	0.854 **	18.10	5.34
Thing	0.878 **	14.50	3.69
Non-compliance of standards	0.817 **	19.60	5.15
Rebellion	0.957 **	29.10	6.14
Scale total		130.90	27.42

Table: 4 alpha Cronbach's coefficient of psych alienation scale

Dimensions	phrases number	Alpha	deleted phrases	phrases' number after
Lack of meaning	17	0.63	6 - 13 - 14 - 15 – 17	12
Social isolation	12	0.75	5 – 10	10
Sense of helplessness	12	0.83	6-9	10
Thing	9	0.67	1 - 2 - 7 – 8	5
Non-compliance of standards	11	0.75	6 – 10	9
Rebellion	18	0.76	1 - 4 - 5 - 9 - 11 – 18	12
Total scale	79	0.95		58

****Significance at 0.01**

Table: 3 showes correlation between dimensions and scale total. after delet 21 phrase because

Table: 4 indicates high reliability they higher than alpha value

Table 5 alpha Cronbach's coefficient of Sport achievement motivation inventory

Dimensions	A number of phrases	Alpha	M	SD
Motive of success achievement	10	0.92	38.70	8.35
Motive of avoid failure	10	0.54	33.50	4.30
Sport achievement motivation	20	0.90	72.20	12.13

Table: 5 shows alpha value of success achievement motive dimension was 0.92; the motive to avoid failure was 0.54,

And for inventory Total was 0.90, it indicates high reliability of this inventory.

Table 6 internal consistency between dimensions and

Inventory total on pilot sample.

Dimensions	Sport achievement motivation
Motive of success achievement	0.92 **
Motive of avoid failure	0.79 **
Sport achievement motivation	

****Significance at 0.01**

Table: 6 showes correlation between dimension and inventory total ranged "0.79: 0.92", so this inventory has high validity

Table 7 mean, standard deviation- percentage - skewness on the dimensions of psych alienation and scale total.

Sports		Dimensions						
		Lack of meaning	Social isolation	Sense of helplessness	Thing	Non-compliance of standards	Rebellion	Psych alienation
Wrestling (n=13)	M	15.92	17.77	16.77	7.69	14.92	19.62	92.69
	SD	4.07	4.19	4.00	2.43	4.77	5.68	21.95
	%	44.23	59.23	55.90	51.28	55.27	54.49	53.27
Weight lifting	M	14.33	17.83	13.00	6.67	12.83	18.50	83.67
	SD	1.72	3.25	3.69	1.63	5.00	5.86	17.78
	%	41.20	59.44	43.33	44.44	47.53	51.39	48.08

(n=6)								
Boxing (n=6)	**M**	**15.50**	**17.00**	**15.17**	**6.17**	**13.50**	**15.50**	**82.83**
	SD	**2.07**	**3.10**	**2.97**	**1.47**	**5.93**	**3.67**	**14.92**
	%	**43.06**	**56.67**	**50.56**	**41.11**	**49**	**43.06**	**47.61**
Judo (n=7)	**M**	**16.00**	**17.14**	**15.71**	**7.57**	**14.00**	**17.71**	**88.14**
	SD	**4.04**	**4.34**	**4.65**	**2.82**	**4.32**	**5.77**	**24.25**
	%	**44.44**	**57.14**	**52.38**	**50.48**	**51.85**	**49.21**	**50.66**
Taekwondo (n=8)	**M**	**16.25**	**16.88**	**16.25**	**8.75**	**14.88**	**19.88**	**92.88**
	SD	**4.40**	**4.70**	**5.85**	**3.58**	**3.68**	**4.36**	**22.74**
	%	**45.14**	**56.25**	**54.17**	**58.33**	**55.09**	**55.21**	**53.38**
Athletics (n=2)	**M**	**15.50**	**16.50**	**13.50**	**5.00**	**10.50**	**13.50**	**74.50**
	SD	**0.71**	**0.71**	**3.54**	**0.00**	**2.12**	**0.71**	**0.71**
	%	**43.06**	**55**	**45**	**33.33**	**38.89**	**37.5**	**42.82**
Individual sports (n=42)	**M**	**15.76**	**17.33**	**15.57**	**7.38**	**14.05**	**18.31**	**88.41**
	SD	**3.41**	**3.79**	**4.30**	**2.58**	**4.52**	**5.17**	**20.20**
	%	**43.78**	**57.78**	**51.91**	**49.21**	**52.03**	**50.86**	**50.81**
Football (n=5)	**M**	**19.40**	**19.40**	**15.20**	**7.00**	**12.60**	**19.20**	**92.80**
	SD	**1.67**	**1.67**	**3.49**	**1.00**	**1.95**	**3.83**	**5.45**
	%	**53.89**	**64.67**	**50.67**	**46.67**	**46.67**	**53.33**	**53.33**
Total sample (n=47)	**M**	**16.15**	**17.55**	**15.53**	**7.34**	**13.89**	**18.40**	**88.87**
	SD	**3.45**	**3.66**	**4.19**	**2.45**	**4.33**	**5.02**	**19.19**
	%	**44.86**	**58.51**	**51.77**	**48.94**	**51.46**	**51.12**	**51.08**
	Skewness	**0.93**	**-0.35**	**0.63**	**1.44**	**0.72**	**0.35**	**0.53**

Table 8 differences between talented of individual and football sports on dimension of psych alienation scale.

Dimensions	Sports	Average grades	Total ranks	"z" value *	Sig
Lack of meanin	**Individual talented (n=42)**	**22.24**	**934**	**- 2.58**	**0.01**
	Football talented (n=5)	**38.80**	**194**		
Social isolation	**Individual talented (n=42)**	**23.21**	**975**	**- 1.15**	**0.25**
	Football talented (n=5)	**30.60**	**153**		
Sense of helplessness	**Individual talented (n=42)**	**23.95**	**1006**	**- 0.07**	**0.95**
	Football talented (n=5)	**24.40**	**122**		
Thing	**Individual talented (n=42)**	**23.86**	**1002**	**- 0.21**	**0.83**
	Football talented (n=5)	**25.20**	**126**		
Non-compliance of standards	**Individual talented (n=42)**	**24.20**	**1016**	**- 0.30**	**0.77**
	Football talented (n=5)	**22.30**	**111.5**		
Rebellion	**Individual talented (n=42)**	**23.67**	**994**	**- 0.49**	**0.63**
	Football talented (n=5)	**26.80**	**134**		
Psych alienation	**Individual talented (n=42)**	**23.63**	**992.5**	**- 0.54**	**0.59**
	Football talented (n=5)	**27.10**	**135.5**		

*** Z value at significance level 0.05=1.96, 0.01 = 2.58.**

Table 8 indicates significant differences between talented of individual and football sports on lack of meaning dimension at significance level 0.01 using *Mann Whitney test* so, there are significant differences in favor of football talented

Table 9 mean, standard deviation, percentage, skewness on the dimensions of sport achievement motivation inventory.and total.

Sports		Dimensions: Success achievement	Dimensions: Avoid failure	sport achievement motivation
Wrestling (n=13)	M	36.69	29.92	66.62
	SD	9.11	5.66	10.45
	%	73.38	59.85	66.62
Weight lifting (n=6)	M	34.33	27.17	61.50
	SD	6.89	2.99	7.58
	%	86.67	54.33	61.50
Boxing (n=6)	M	34	30.50	64.50
	SD	6.42	4.93	10.52
	%	68	61	64.50
Judo (n=7)	M	39.86	29.14	69
	SD	6.82	6.47	8.58
	%	79.71	58.29	69
Taekwondo (n=8)	M	34.63	32	66.63
	SD	5.40	2.45	5.85
	%	69.25	64	66.63
Athletics (n=2)	M	36	44	80
	SD	0.00	2.83	2.83
	%	72	88	80
Individual sports (n=42)	M	36.07	30.55	66.62
	SD	7.14	5.67	9.14
	%	72.14	61.10	66.62
Football (n=5)	M	42.80	32	74.80
	SD	2.49	1.87	2.28
	%	85.6	64	74.80
Total sample (n=47)	M	36.79	30.70	67.49
	SD	7.10	5.40	9.02
	%	73.57	61.40	67.49
	Skewness	0.001	0.12	-0.25

Table 10 differences between talented of individual and football sports on dimension sport achievement motivation inventory.

Dimensions	Sports	Average grades	Total ranks	"z" value *	Sig
Success achievement	Individual talented (n=42)	22.58	984.5	- 2.06	0.04
	Football talented (n=5)	35.90	179.5		
Avoid failure	Individual talented (n=42)	23.55	989	- 0.66	0.51
	Football talented (n=5)	27.80	139		
sport achievement motivation	Individual talented (n=42)	22.60	950	2.	0.05
	Football talented (n=5)	35.60	178		

*** Z value at significance level 0.05=1.96, 0.01 = 2.58.**

Table 10 indicated significant differences between talented of individual and football sports on motive of success achievement and sport achievement motivation at significance level 0.05 using Mann Whitney test so, there are significant differences in favor of football talented

Table 11 Correlation between dimensions of psych alienation scale and Sport achievement motivation inventory.

Achievement motivation dimensions	Psych alienation dimensions						
	Lack of meaning	Social isolation	Sense of helplessness	Thing	Non-compliance of standards	Rebellion	Psych alienation
Success achievement	-0.156	-0.168	-0.462 **	-0.412 **	-0.584 **	-0.525 **	-0.485 **
Avoid failure	0.277 *	0.137	0.54	0.065	-0.072	0.010	0.080
sport achievement motivation	0.043	-0.050	-0.331 *	-0.285 *	-0.502 **	-0.407 **	-0.333 *

** p<0.01 *p< 0.05

Table 11 indicated inverse negative correlation Significance at 0.01 between psych alienation dimensions, sense of helplessness, thing, non-compliance standards, rebellion and the motive of success achievement ; between psych alienation dimensions, non-compliance standards, rebellion and Sport achievement motivation; between psych alienation and the motive of success achievement, as there was an inverse negative correlation Significance at 0.05 between psych alienation dimensions, sense of helplessness, thing and sport achievement motivation; between psych alienation and sport achievement motivation; while there was direct positive correlation Significance at 0.05 between psych alienation dimension the lack of meaning and the motive of avoid failure.

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Methods. We used Romanian university students (27 males and 97 females). The body fat percentage was measured by two methods: the skinfolds measurements...

Results. Body fat estimated with accu-measure caliper was moderate correlated with body fat estimated with FUTREX for women (r = 0.41)…

Conclusions. We cannot consider that one method of body composition analysis (skinfolds method or near-infrared method) is more accurate than…

*Key Words:*skinfolds method, near-infrared method, percentage of body fat, fat mass, free fat mass, Romanian students.

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Abstract

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The aim of this study was to examine the relationship between skinfolds method (accu-measure caliper) and near-infrared method (FUTREX 1000 Personal Body Fat Tester) for body fat percent, fat mass and free fat mass estimations, in Romanian university students. We used Romanian university students (27 males...

Key Words: skinfolds method, near-infrared method, percentage of body fat, fat mass, free fat mass, Romanian students.

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Abstract

Objective. The aim of this study was to examine the relationship between skinfolds method (accu-measure caliper) and near-infrared method (FUTREX 1000 Personal Body Fat Tester) for body fat percent, fat mass and free fat mass estimations, in Romanian university students.

Methods. We used Romanian university students (27 males and 97 females). The body fat percentage was measured by two methods: the skinfolds measurements (accu-measure caliper) and near-infrared measurement (Futrex 1000).

Results. Body fat estimated with accu-measure caliper was moderate correlated with body fat estimated with FUTREX for women (r = 0.41) and for men (r = 0.55). Fat mass (skinfolds method) skinfolds method and free fat mass (skinfolds method) were moderate correlated with fat mass (near-infrared method), respectively free fat mass (near-infrared method) for women (r = 0.41, respectively r= 0.41) and correlated for men (r = 0.60, respectively r = 0.60).

Conclusions. We cannot consider that one method of body composition analysis (skinfolds method or near-infrared method) is more accurate than the other because we don't apply a gold standard method of measurement, for subjects. However, near-infrared method trends to have higher estimations of body fat, then skinfolds method on Romanian students.

Key Words: skinfolds method, near-infrared method, percentage of body fat, fat mass, free fat mass, Romanian students.

Introduction

The increase in obesity is a global phenomenon that is even being addressed by the World Health Organization (World Health Organization, 2003), as well as by medical and government organizations in the world.

One of factors that contribute to body composition changes, respectively to body fat percent grow up is physical inactivity or sedentary lives (National Institutes Of Health, 1998).

Factors, such as age, gender, level of adiposity, physical activity and ethnicity influence the choice of method and equation. To date, race-specific SKF

(American Indian women, Black men, and Asian adults), BIA (American Indian women and Asian adults), and NIR (American Indian women and White women) equations have been developed (Heyward, 1996).

Infrared is not an indicator of body composition in the pre-adolescent population on an individual basis. This method continues to be no accurate, cost-effective means to assess individual body composition by a rapid, noninvasive methodology (Michael, Jan, Wendy, 2003).

Larger prediction errors have been reported with the lower cost, hand-held Futrex 1000 model. Because of these errors, the manufacturer's equations for the Futrex 1000 are not recommended to assess body composition (Wagner and Heyward, 1999).

Kamimura et al. cannot consider that one method of body composition analysis (SKF method, bioelectrical impedance analysis, or NIR method) is more accurate than the other because they didn't apply a gold standard method, for patients on long-term hemodialysis therapy. However, the most simple, long-established, and inexpensive method of SKF thickness seems to be still very useful for assessing body fat (Kamimura, Jose Dos Santos, Avesani, Fernandes Canziani, Draibe, Cuppari, 2003).

In a healthy group of 29 subjects examined by Elia et al., NIR method had little or no advantage over other simple methods in predicting body composition measured by classical whole-body densitometry. NIR method was also found to underestimate body fat increasingly as the degree of adiposity increased. This under-estimation was found to be particularly marked in a small and separate group of grossly obese women, BMI greater than 50 kg/m^2, whose body composition was assessed by total body potassium as well as by densitometry (Dumitru, 1997).

Heyward et al. concluded that all three field methods, respectively SKF, bioelectric impendance and NIR compared with hydrostatic weighting, accurately estimate the percent of body fat for nonobese women; however, none of these three methods is suitable for estimating the percent of body fat for obese women (Heyward, Cook, Hicks, Jenkins, Quatrochi, Wilson, 1992).

One study concluded that, SKF is higher correlated with under water weighting than did FUTREX 5000 with under water weighting for males (0.95 versus 0.80), females (0.88 versus 0.63), and the whole group (0.94 versus 0.81) and FUTREX 5000 overestimated body fat in lean subjects with less than 8% fat and underestimated it in subjects with greater than 30% fat. Analyzing this, the authors concluded that, SKF give more information and more accurately predict body fat, especially at the extremes of the body fat continuum (McLean and Skinner, 1992).

The present findings indicate that, the FUTREX 5000 provide more accurate estimates of body fat percent than the FUTREX 5000A or FUTREX 1000 instruments (Smith, Johnson, Stout, Housh, Housh, Evetovich, 1997). Continued research with expanded populations is needed to further demonstrate and evaluate the utility of FUTREX 5000A device (Cassady, Nielsen, Janz, Wu, Cook, Hansen, 1993).

Conway et al. concluded that, body composition (percentage fat) estimated in 53 adults (23 to 65 years of age) by infrared interactance, is correlated with SKF ($r = 0.90$) measurements. They conclusioned that, the method is safe, noninvasive, rapid, easy to use, and may prove useful to predict percentage body fat, especially in the obese (Conway, Norris, Bodwell, 1984).

SKF method is still a reliable technique of BF estimation, but if it's not realized with the most accurately instruments the results trends to have errors in BF estimation and FM, respectively FFM (Cyrino, Okano, Glaner et al., 2003). The NIR method is still a questionable technique for BF estimation (McLean and Skinner, 1992; Michael, Jan, Wendy, 2003; Wagner and Heyward, 1999).

The objective of this study is to examine the relationship between skinfolds (SKF) method (accu-measure caliper) and near-infrared (NIR) method (FUTREX 1000 Personal Body Fat Tester) for body fat percent (BF), fat mass (FM) and free fat mass (FFM) estimation, in Romanian university students.

Methods

The subjects were white Caucasian and students at faculties of Ovidius University in Constanta. The aims and methods of the study were explained to the participants, who chose freely to participate in this study. As a result, the sample included 127 students (97 females and 27 males), with age between 18 and 23 years old.

Body height was evaluated with an error of 0.1 centimeters and body weight was evaluated with a calibrated digital scale, with an error of 0.25 kilograms. For this measurement the subjects were dressed summarily. BMI was calculated to estimate the category of weight for each subject by using the Quetelet formula (Dimitre, 1997).

Percent of body fat was estimated with two methods. The first method consisted in calculation of body fat percent with Jackson and Pollock, (1978), equation, for male subjects and Jackson, Pollock and Ward, (1980), equation, for female subjects. The abdominal (taken vertically with a broad grip, 5cm. lateral to the omphalion (centre of the umbilicus)), chest (taken obliquely along the natural cleavage line of the pectoral between the axilla and nipple) and thigh (vertical fold taken midway between the inguinal

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crease and proximal border of the patella) skinfolds were measured for …

Results

In table 1 the differences between sexes were significant only for body height (t = 9.838) and body weight (t = 5.841).

Table 1. Physical characteristics of the subjects

	M ± SD	
Variables	**Males (n = 27)**	**Females (n = 97)**
Age (years ^{months})	$19^{7} \pm 0^{11}$	$20^{1} \pm 2^{8}$
Body height (cm)	1.789 ± 0.078 *	1.63 ± 0.059
Body weight (kg)	66.074 ± 11.135 *	52.722 ± 7.842
BMI (kg/m^2)	20.598 ± 2.929	19.811 ± 2.485

* differences between sexes, p<0.05.

BMI, body mass index; M, mean; SD, standard deviation; n, number of subjects.

In table 2 the differences between sexes were significant for all variables (BFskf, t = 13.278; FMskf, t = 6.346; FFMskf, t = 11.498; BFnir, t = 7.856; FMnir, t = 2.883; FFMnir, t = 9.861). All variables from SKF method had significant correlations with their correspondent variable from NIR method, when body height, body weight and age were controlled. BFskf was moderate correlated with BFnir for women (r = 0.41) and for men (r = 0.55). FMskf and FFMskf were moderate correlated with FMnir, respectively FFMnir for women (r = 0.41, respectively r = 0.41) and correlated for men (r = 0.60, respectively r = 0.60).

Table 2. Differences between SKF method and NIR method

	Skinfold method (Accu-measure caliper) M ± SD	
Variables	**Males (n = 27)**	**Females (n = 97)**
BFskf (%)	8.962 ± 4.407 * †	21.886 ± 4.704 *
FMskf (kg)	6.25 ± 4.006 * †	11.806 ± 4.085 *
FFMskf (kg)	59.824 ± 8.207 * †	40.915 ± 4.512 *
	Infrared method (Futrex 1000) M ± SD	
Variables	**Males (n = 27)**	**Females (n = 97)**
BFnir (%)	13.074 ± 5.988 †	22.805 ± 4.475
FMnir (kg)	8.97 ± 5.431 †	12.164 ± 3.615
FFMnir (kg)	57.104 ± 8.225 †	40.557 ± 5.486

* correlated with BFnir, FMnir and FFMnir for males, respectively for women, when height, weight and age are controlled, p<0.05;
† differences between sexes, p<0.05.

BFskf, body fat - skinfolds method; FMskf, fat mass - skinfolds method; FFMskf, free fat mass - skinfolds method; BFnir, body fat - infrared method; FMnir, fat mass - infrared method; FFMnir, free fat mass - infrared method; M, mean; SD, standard deviation; n, number of subjects.

Discussion

Compared with the anthropometric reference data 1988 – 1994 from United States (National Health and

Nutrition Examination Survey, 2005), body height for our subjects was slightly higher for men and slightly lower for women, compared with the corresponding values for Americans. The body weight was lower, for both men and women, compared with the corresponding values for Americans.

…….

Conclusions

Acknowledgments (if is necessary)

I thank all students for participating in this study. No funding was used for this study.

References

Cassady, SL., Nielsen, DH., Jan,z KF., Wu, Y.T, Coo,k JS., Hansen. JR. 1993, Validity of near infrared body composition analysis in children and adolescents, Med Sci Sports Exerc, Oct; 25(10):1185-1191.

Conway, JM., Norris, KH., Bodwell, CE., 1984, A new approach for the estimation of body composition: infrared interactance. Am J Clin Nutr, Dec; 40(6):1123-1130.

Cyrino, ES., Okano, HA., Glaner, FM et al. 2003, Impact of the use of different skinfold calipers for the analysis of the body composition. Rev Bras Med Esporte, 2003; 9(3):150-153.

National Institutes of Health (NIH). 1998, Clinical Guidelines On The Identification, Evaluation, And Treatment Of Overweight And Obesity In Adults. The Evidence Report. Publication No. 98-4083, Sep: XI-XXX.

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Table 1. Physical characteristics of feminine subjects

- Number and title of the table (Home, Times New Roman, Size 10, Justify).

Variables	Subjects with dominant upper and lower right limb(n = 8)		Subjects with dominant upper and lower left limb (n = 8)	
Height (cm.)	163,25 ± 4,95	3,032%	162,5 ± 4,309	2,652%
Weight (kg.)	66,088 ± 7,343	11,111%	67,038 ± 5,352	7,984%
IMC (kg/m^2)	24,745 ± 1,827	7,383%	25,368 ± 1,439	5,673%
Percentage of body fat(%)	26,625 ± 2,873	10,791%	26,55 ± 2,964	11,164%
Fat mass (kg.)	17,739 ± 3,56	20,069%	17,91 ± 3,235	18,063%
The values are presented as M ± DS şi CV%.				
IMC, index of body mass; M, mean; DS, standard deviation; CV, variability coefficient; n, number of subjects.				

- Statistic section (Home, Times New Roman, Size 10, Justify).

The connection between the data in the table and the statistical section will be done through identification letters counted in alphabetical order or identification symbols used in the order *, †, ‡, §, ‖, ¶, **, ††, ‡‡, etc.; inside the table, the letters or the identification symbols will be written in the superscript(Home, Superscript) immediately after the data, and inside the statistical section, the identification letters will be written before the hyphen and the statistical comments and the identification symbols immediately before the statistical comments (without a hyphen).
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Example: 0,851 ± 0,044 [a]

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Example: a – significantly different compared to the force ratio F150 Right side flexion/ F150 Left side flexion, 0º, for the subjects who practise football, respectively athletics (triple jump), F(2, 12) = 5,5;

- Identification letter.
- Hyphen.
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Table 2. Means of results of maximum isometric force ratios for feminine subjects who practise different sports

Force ratio	Handball (n = 5)	Football (n = 5)	Athletics (triple jump) (n = 5)
F130 Flexion/ F110 Extension (30º)	0,589 ± 0,109 18,506%	0,556 ± 0,075 13,489%	0,565 ± 0,05 8,85%
F150 Right side flexion/ F150 Left side flexion (0º)	0,851 ± 0,044 [a b] 5,17%	0,942 ± 0,056 [c] 5,945%	0,919 ± 0,03 [d] 3,264%
F120 Right side rotation/ F120 Left side rotation (-30º)	0,972 ± 0,07 7,202%	0,825 ± 0,227 27,515%	1,052 ± 0,019 [e] 1,806%

a – significantly different compared to the mean of the force ratio F150 Right side flexion/ F150 Left side flexion, 0º, for subjects who practise football, respectively, athletics (triple jump), F(2, 12) = 5,5;
b – significantly different compared to the mean of the force ratioF150 Right side flexion/ F150 Perfectly ballanced left side flexion (when all the force ratios are equal to 1), 0º, t=7,572;
c – significantly different compared to the mean of the force ratio F150 Right side flexion/ F150 Perfectly ballanced left side flexion (when all the force ratios are equal to 1), 0º, t=2,316;
d – significantly different compared to the mean of the force ratio F150 Right side flexion/ F150 Perfectly ballanced left side flexion (when all the force ratios are equal to 1), 0º, t=6,037;
e – significantly different compared to the mean of the force ratio F120 Right side rotation/ F120 Perfectly ballanced lesft side rotation (when all the force ratios are equal to 1), -30º, t=6,12;
The values are presented as M ± DS and CV%; Significance limit established at $p<0,05$.

M, mean; DS, standard deviation; CV, variability coefficient; n, number of subjects; t, test t student ; F, test ANOVA.

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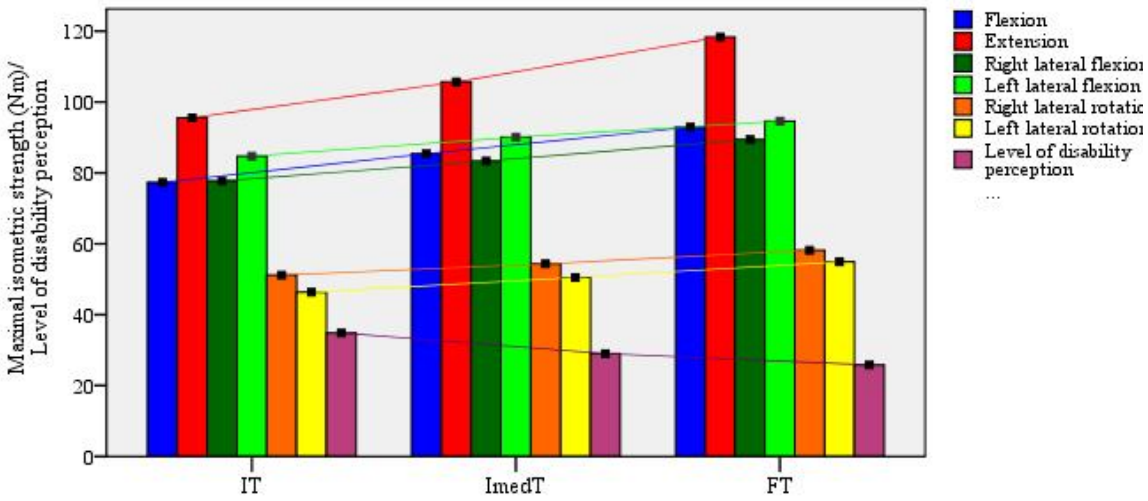

Figure 27. The evolution of means of maximum isometric force and the degree of perception at different tests. Nm, Newton*meter; IT, initial testing; ImedT, intermediary testing; FT, final testing.

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Example: Body weight, body composition, resting metabolic rate (RMR), respiratory quotient (RQ), temperature, fasting serum glucose, insulin, free fatty acids, and ghrelin were assessed at baseline and after 21 d (12-h fast) and 22 d (36-h fast) of alternate-day fasting.

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RMR and RQ did not change significantly from baseline to day 21, but RQ decreased on day 22 ($P < 0.001$), which resulted in an average daily increase in fat oxidation of ≥15 g.

- Abbreviations when appears for the second time in the text.

Bibliography

Wuthiekanun, V., Chierakul, W., Langa, S, et al. 2006, Development of antibodies to Burkholderia pseudomallei during childhood in melioidosis-endemic northeast Thailand. Am J Trop Med Hyg 2006 Ian 12;74(10):1074-5.

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