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**Message from Vice President of I. R. Iran &
Head of Physical Education Organization**

In the Islamic Republic of Iran, sports have been emphasized to promote the well being of the spirit and body. One of the most important issues confronting societies including Iran is finding the appropriate approach to the poverty of movement in the mechanical life. These days, many expenses have been paid to eliminate body structure problems, extra weight, and cardiovascular disease that have been caused by the poverty of movement in society. These expenses are national assets that should be used appropriately.

Different sciences and fields have been recognized as one of the most important factors for improving mental and physical conditions, increasing general health, body competence, and the human spirit.

Among the sport fields, physical fitness and aerobics are some of the most efficient fields due to their features; they can balance mental and physical power and have long-lasting effects on peoples' bodies and minds. Iran is now the host of the International Congress on Physical Fitness and Aerobics. I hope that exchanging the information and using modern knowledge of participants and the newly mentioned congress can make the opportunity to consolidate physical fitness and aerobics in different societies and pay more attention to them than in the past to reveal their value.

Ali Saeedlu

Vice President of I. R. Iran and Head of Physical Education Organization



**Message from the I. R. Iran Federation of
Sports, Aerobics, and Fitness President**

In these days, sports have been turned into one of the most important pillars of human life. Keeping and promoting the role of sports in life today relies on using scientific and research findings either in the athletic aspect or health of society. According to physical fitness and aerobics in preparing elite athletes as well as approaching the health and fitness of society, paying attention to the scientific development of physical fitness and aerobics is vital. Physical fitness as a key point of reaching the peak of sport performance, and health has enjoyed the progress of sport science. Aerobics as an effective approach to health, fitness and scientific development of sport for all has enjoyed great importance as well. Doubtlessly, despite the widespread progress of physical fitness and aerobics today, both need special information science in related fields. Programming and holding scientific congresses are effective and vital movements in the scientific development of sports. The International Congress on Physical Fitness and Aerobics is an appropriate opportunity to offer the latest scientific findings to sport coaches, instructors, judges, sport club managers, athletes, university students, and other people involved in sports. Presenting foreign and Iranian university professors, researchers, and specialists of physical fitness and aerobics in the above-mentioned congress shows the specific place of scientific development of sport and health of the society. I hope that by using the scientific achievement of this congress, we will take steps forward in offering special services as well as promoting the health and happiness of society.

Robab Shahrian

President of I. R. Iran Federation of Sports, Aerobics and Fitness



Preface

Welcome to the International Conference of Physical Fitness and Aerobics, which is hosted by Physical Fitness and Aerobics Federation in Tehran, Iran. The conference is a valuable opportunity to develop the direction of physical education and sport as the underlying supply and education part of a healthy society and country's national development. Surely exchange of scientific information, culture, and sports between the participants and presenting the latest achievements in science and promoting scientific and empirical richness of society—especially sports and aerobic physical fitness and their underlying effects on creating a bright future—will be comprehensive. It was a pleasure to set the scientific conferences, sports, and success by holding the first international scientific and aerobic fitness conference. Following this conference, the following objectives must be achieved:

- Present the latest research findings in physical fitness and aerobics.
- Promote knowledge managers, educators, professionals and practitioners in this field.

Promote scientific and aerobic fitness in the country.

- Exchange of information—scientific and empirical research—between different groups participating in the conference.
- Study community-based issues and provide scientific and practical implementation strategies to preserve and promote the structural and operational aspects of sports.

Appropriate in light of information that was very convivial and good academics and physical fitness and aerobics enthusiasts determined to excel submitted about 600 abstracts to the Secretariat seminar.

There are various areas in sport science that were thoroughly applied to all sections of this conference; therefore, four optimal areas for overall conference goals were to include: sport physiology, sport management, motor behavior and sports medicine. Assessed without the name and position, papers available to researchers and faculty members of the congress were respected

and every scientific article in at least three was judged. According to the criteria and standards accepted 65 articles were accepted for lecture and 180 were accepted as posters. For the richness of the scientific conference, 14 prominent professors and local and foreign experts in this regard for speeches to special audiences were invited to speak on a sensitive topic of their choice. The prediction and training workshops conducted 12 scientific and practical issues regarding physical fitness and aerobics, and other like-minded management achievements were Council Conference. It is worth noting in this field to provide scientific output and its optimal use by researchers and enthusiasts within and outside the country, articles to books, CD, indexed, and published in prestigious scientific journals internationally offered.

Respected sports authorities hope to make the country aware of the importance of scientific development and strengthening exercise, particularly aerobic fitness and most contacts in the country and the world have all the basic exercises, as well as to advance the structural growth and continuation of such activities of the Federation through those scientific efforts. I know that as Conference Secretary of the Federation, manager in the development of this movement and all deputies and Scientific Conference Council colleagues, esteemed faculty members and all organizations that have any holding in this conference in cooperation with the goals have been honored.

Dr. Habib Honari

Secretary General of Conference

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International Lecturer Biography



Prof. Dr. Latiffah Abdul Latiff

Universiti Putra Malaysia

Dr Latiffah Abdul Latiff is a Professor of Public Health Medicine in Universiti Putra Malaysia. She is currently the coordinator of Cancer Epidemiology Unit in the Laboratory for Cancer Research; UPM-MAKNA; Institute of Bioscience; and Universiti Putra Malaysia since 2006. She has been very active in research and consultancy activities especially in the area of Preventive Medicine: Cardiovascular Diseases; Metabolic Syndrome Risk Factors and Prevention; Physical Activity and Healthy Lifestyle Promotion. The University appointed her as the Deputy Director of Gerontology Institute in 2002 till 2005. She was awarded a study grant by the International Institute on Ageing; United Nation and visited several Geriatric centers in MALTA. Currently; she is heading the Diagnostic; Therapeutic; Epidemiology and Community Program in Laboratory for Cancer Research; UPM-MAKNA; Institute of Bioscience; UPM since 2006. She is a Life Member of Gerontological Association of Malaysia; Life Member of Malaysian Medical Association; Life Member of the Malaysian Public Health Physician Association and Life Member of Malaysian Women Postgraduate Association. Her diversified research areas of interest and specializations are Epidemiology: Preventive Medicine: Cardiovascular Diseases; Metabolic Syndrome Risk Factors and Prevention; Physical Activity and healthy Lifestyle promotion; Geriatrics and Gerontology: Dementia and Alzheimer's disease; Communicable diseases Prevention; Cancer Diagnosis; Prevention and Management; Public Health: Family Health; Health Education and Promotion; Health-related Quality of Life; Productive and Healthy Ageing; Health Systems Management; Health Systems Research; Primary Health Care; Human Resource Development; and Herbal Medicine.



Prof. Dr. Mark B. Andersen;

Victoria University; Melbourne; Australia

Mark B. Andersen is a registered psychologist in Australia and licensed to practice psychology in the United States. He is a Professor at Victoria University in Melbourne; Australia. He teaches in the School of Sport and Exercise Science and the Institute of Sport; Exercise; and Active Living. He co-ordinates the master's and doctor of applied psychology degrees (sport and exercise psychology emphasis) in the School of Social Sciences and Psychology. He received his doctorate from the University of Arizona in 1988 and immigrated to Australia in 1994. Also in 1994; he received the Dorothy Harris Memorial Award from the Association for the Advancement of Applied Sport Psychology for excellence as a young scholar/practitioner. He teaches courses in research design; psychology of rehabilitation; and the professional practice of psychology. His areas of research interest include the psychology of injury and rehabilitation; the role of exercise in mental health; well being; and quality of life; the training and supervision of graduate students; and the practice of sport psychology service delivery. He is the former editor of the Professional Practice section of the international journal *The Sport Psychologist*. He has published more than 120 refereed journal articles and book chapters and has made over 100 national and international conference presentations. His three edited books *Doing Sport Psychology; Sport Psychology in Practice; and Psychology in the Physical and Manual Therapies* are used around the world. Dr. Andersen has worked for many years counselling athletes and performing artists ranging from twelve-year old juniors to ballet dancers to American and Australian Olympians.



Dr. Xindong Ma

Tsinghua university Beijing China

Dr Ma's Research has focused on two areas: mechanism responsible for skeletal muscle weakness and the role of the physical activity in the management and treatment of Health. He investigates the effects of skeletal muscular exercise and inactivity and the role that exercise mediated change in skeletal muscle in providing protection against ischemia-reperfusion injury.in addition to conducting skeletal muscular research. Dr Ma also interested in health programs.The objectives designed to emphasize quality life; well-being and functional capacity-all important wellness considerations among adolescents;yong adult ;and adults.

Dr Ma's work has received a number of prominent national foundations in China.He also published a number of articles in prominent journals related areas in China. Furthermore; He also has experience directing the operation of the department; administering research programs and organizing large games.

Dr Ma also works as associate Dean; Division of Physical Education and Sport Science; Tsinghua University; one of the best universities in China. Responsibilities included directing. The operation of the Division; administering research programs; managing facilities and Equipments; overseeing sport and recreational venues with an annual budget of over ¥5 Million in Chinese currency; and supervising over 60 staff members.

During Beijing Olympic Game; Dr Ma also worked as General Manager; Training Venus for Basketball; Water Polo; and Diving; Beijing Organizing Committee for the Olympic Games. Responsibilities included directing the administrative affairs of nine operational Divisions with a budget of over ¥3 million in Chinese currency and supervising a staff team of over 400 members.



Dr. Johnny F. Nel

Head IIFT

Johnny F. Nel Obtained various undergraduate qualification in psychology and a Doctorate in Educational Cognitive Psychology from the University of Pretoria. He has co-authored numerous textbooks/manuals on sport psychology and performance conditioning. Dr. Nel has founded numerous departments related to education; highly gifted children as well as Sports Science and Fitness. He has received international awards from the World Council for Gifted Children and the National Strength and Conditioning Association. Dr. Nel has been a member of various international and national committees and is currently the Head of International Institute for Sports Science and Fitness Training in South Africa (IIFT) and a member of the Sports Science and Medical Commission of the South Africa Sports Confederation and Olympic Committee (SASCOC).



Dr Julien D. Périard

The University of Sydney; Australia

Dr. Julien Périard is a post-doctoral research fellow in environmental physiology at ASPETAR; Qatar Orthopaedic and Sports Medicine Hospital. He completed his PhD at the University of Sydney; Australia; in 2011 where he investigated the limits to aerobic exercise performance in the heat. His research was funded by the prestigious University of Sydney International Research Scholarship. Prior to his doctoral work he investigated vasomotor and sudomotor control during and following exercise at various intensities under heat stress (University of Ottawa; 2000-2003). From 2009 to 2010 he was a post-graduate research and teaching fellow at the University of Sydney. Dr. Périard has been recognised as an Academic All-Canadian and was a finalist at the Canadian Society for Exercise Physiology Graduate Student Award Competition (2002). In addition; he received the Young Investigator Award for best oral presentation at the Exercise and Sport Science Australia Conference (2010). Along with his academic pursuits; Dr. Périard possesses a unique understanding of endurance athletics at the elite level; having competed on the International Triathlon Union World Cup Circuit for Canada (2002-2007). His principle research interests lie with human cardiovascular and neuromuscular function during exercise in adverse environmental conditions; including hyperthermia and hypoxia. Furthermore; he has a keen interest in heat shock proteins and their role in human heat tolerance.

Exercise Physiology

Oral Presentation

TO INVESTIGATE THE RELATION OF EPIDEMIOLOGIC FACTOR; OBESITY; AND ANTHROPOMETRIC INDICATORS AMONG WOMEN IN TEHRAN

Parichehr Hanachi

Alzahra University, Tehran, Iran

Abstract

Obesity is kind of malnutrition in which high accumulation of fat is seen. An obese person is defined by being at least 20% over the favorable weight. Obesity could result in metabolic disorders including hyperlipidemia; hypertension; arteriosclerosis; increased risk of insulin resistance and cardiovascular disease. In addition; obesity predisposes the individuals to the overweight- along with hereditary factors; change in life style; eating habits and loss of physical activity.

Studies have shown that lipid distribution profile has a critical role in identification disease risk factors. Moreover; people with fat piling up in their girth are prone to developing diabetes; cardiovascular disease and hypertension. Therefore; other anthropometric indicators are used for determination of lipid body mass. WHtR; BMI and WHR are common indicators for estimates of lipid in body. The overall aim of this study was to determine the relationship between epidemiologic status; obesity and anthropometric indicators among women in Tehran. Sampling was performed by multi random clustering. First; 22 districts of Tehran were divided into 5 main groups as North; South; West; East and Center distract which several regions were chosen by clustering. The questionnaires were filled out by the participants.

Data set includes age; marriage age; marital status; number of pregnancies; number of children; occupation; state of activity; history of parental obesity and the hours of physical training during the week. Participation; WHR; WHtR and BMI were analyzed the statistical analysis were performed by SPSS V.17 software using t-student test for independent groups and Pearson correlation. About 80% of the subjects did not take supplements with majority residing in south of Tehran. The other 20% with the majority living in west of Tehran used supplements. Multi-vitamins; calcium; ferrous tablet and Omega3 were the most used supplements. Around 84% of the participants claimed no history of any disease. Whereas; 16% of them had history of diabetes; hypertension and renal disorders of which the majority reside in north of Tehran. The hormonal disorders were the most common disease in the subjects.

The average BMI was 24.4 ± 4.3 kg/m² with the minimum in women of south Tehran and the maximum in west Tehran. The average WHR was 0.8 ± 0.09 with the least in women of North Tehran and the most in west Tehran. The average WHtR among women in all the districts of Tehran was 0.5 ± 0.08 with the minimum in women of North Tehran and maximum in women of west.

Key words: *obesity; anthropometric indicators; women; Tehran; epidemiology*

PHYSICAL FITNESS NORMS OF THE PRE-SCHOOL CHILDREN OF TEHRAN

Hamid Agha Alinejad; Mansoreh Salari; Somaye Kamjoo

Islamic Azad University, Central Tehran Branch

Abstract

The aim of this study was to provide the physical fitness norms of pre-school children of Tehran.

The subjects were 400 pre-school boys and girls (mean age of 6 ± 0.24 & 6 ± 0.21 yrs; body mass 21.72 ± 5.14 & 21.06 ± 4.04 kg; Height 117.12 ± 6.4 & 117.12 ± 6.4 cm; $VO_2\max$ 50.73 ± 1.86 & 51.59 ± 2.07 ml/kg/min for girl & boys respectively) of Tehran.

We measured $VO_2\max$; height; body mass; BMI; triceps & calf skinfolds; %BF; WHR and WSR for providing the norms. Results showed Tehranian pre-school girls and boys have good aerobic fitness but they have high %BF.

Therefore; it is suggested to give much importance to physical activity programs for pre-school children.

Key words: *Physical Fitness; pre-school Children; Tehran; Norms*

THE EFFECT OF ONE SESSION CIRCUIT RESISTANCE EXERCISE ON SERUM HOMOCYSTEINE LEVELS OF HEALTHY MEN WITH OVERWEIGHT

Nahid Bijeh; Amir Rashid Lamir; Mohsen Jafari

Ferdowsi University of Mashhad

Abstract

The aim of this study was surveying the effect of a single bout circuit resistance exercise on Hcy levels of inactive men. Subjects divided into exercise group (n=14) and control group (n=9). Circuit exercise comprised 10 exercises with intensity of 35% of 1RM. Blood samples were collected 30 minutes before and immediately after training. Data were analyzed using independent sample T test in SPSS16.0 software ($P<0.05$). Analysis of data showed significant elevation of serum Hcy levels after training in exercise group but not in control group. Elevation of Hcy levels after one session circuit resistance exercise reflects atherosclerosis risk. Thus in planning of training for inactive men regulation of duration; intensity and type of exercise should be considered.

Key words: *Circuit Resistance Exercise; Homocysteine*

EFFECTS OF SPRINT INTERVAL AND CONTINUOUS ENDURANCE TRAINING ON INFLAMMATORY

Tahereh Arefi rad; Fariborz Hovanloo; Sajjad Ahmadi zad

Shahid Beheshti University

Abstract

Chronic and inflammatory diseases are more factor of death; while there is reverse relation between cardiopulmonary fitness and disease. In the other hand; anti-inflammatory effects of exercise training have been confirmed and it's effect have been showed on pro and anti inflammatory cytokines. The aim of this study was to compare the effects of two type of sprint interval (SIT) and continuous endurance (CET) training on inflammatory factors. Research method: Sixteen students who had recreational activities participated in the study and were randomly

Assigned to two training groups (age 23.62 ± 2.33 year; weight 65.26 ± 9.38 kg Vo_2max 33.96 ± 5.62 ml/kg/min). The SIT group completed a training protocol 3 days/wk for 2 weeks which included four to six 30-s "all-out" Wingate tests separated by 4 min of recovery. The CET protocol included 90-120 min cycling at 65% of their maximum oxygen uptake (Vo_2max) which was performed 3 days/wk and for two weeks. In each group two blood samples were collected before and 2 days after the training. Blood and serum samples were analyzed for IL-6; IL-10 and CRP; white blood cells (WBC); glucose and insulin. HOMA-IR was calculated by using the glucose and insulin concentrations. Data were statistically analyzed by using repeated measures of ANOVA and Mann-Whitney U. Results: Results shown that there was no significant difference between the two training effects on all measured parameters ($p > 0.05$). However; CRP; IL-10 and WBC levels were decreased in response to both training protocols; though IL-6 and IR decreased in SIT while in response to ECT protocol IL-6 increased and IR was not significantly changed. Discussion and Conclusion: Based on the findings of the present study it was concluded that the sprint interval training and continuous endurance training would affect on inflammatory markers similarly.

Key words: *IL-6; IL-10; CRP; Sprint Interval T raining; Continuous Endurance Training*

THE EFFECT OF SELECTED EXERCISE PROGRAM AND CONSUMPTION OF VITAMIN D SUPPLEMENTATION ON PEACE OF PATIENTS WITH ASTHMA

Zeynab Razavi Majd¹; Parvaneh Nazarali¹; Mohammad Reza Kordi²; Parichehr Hanachi¹

1. Alzahra University

2. Tehran University

Abstract

The aim of this research; determine of the effect aerobic exercise training program and consumption Vitamin D supplement on Forced Expiratory Volume in First second (FEV₁) in Asthmatic patients. 16 Asthmatic patients (8 person in exercise group & 8 person control group) were selected. Asthmatic patients' group exercise has under taken 8-week aerobic exercise training program and consumption Vitamin D supplement and control group have not program. Borg scale for perceived exertion was employed for self-evaluation of exercise loading. There was significant different in FEV₁ between pre and post test in asthmatic patients in exercise group. therefore can be conclude aerobic exercise training and consumption Vitamin D supplement increase FEV₁ and part of pulmonary rehabilitation programs be for asthmatic patients.

Key Words: *Aerobic Exercise Training; FEV; Spirometry; Asthmatic patients*

PREDICTION OF THE HEART RATE QUANTITY INDEX OF THE KATCH - MCARDLE STEP TEST & PROVISION OF A NORM

Bakhtiar Tartibian; Hamzeh Akbari; Behzad Haji zadeh

Abstract

The purpose of the present study was prediction of the heart rate quantity index of the Katch-McArdle step test and provision of a new norm for determining of level of cardiovascular fitness according to the heart rate quantity index and age; height; weight and body mass index in active men and women. For this purpose selected 169 active men and 123 active women randomly and placed in five age groups and the subjects performance was evaluated in Katch Mc Ardle step test. The results showed that in active men; the heart rate quantity index in the BMI (22-23 kg/m²) and in the age ranges of 18-22; 23-27; 28-32; 33-37 and >38 years was to arrangement 1.6; 1.68; 1.73; 1.86 and 2.20 and in active women; in the order of 1.65; 1.70; 1.90; 2.20 and 2.20 (ICC= r 0.96; P=0/001) obtained. Finally; the results of this study suggest; whatever athletes closed to the BMI 22-23 (kg/m²); their cardiovascular fitnesses increase. This result is not reported to now.

Key words: *Cardiovascular fitness; Active men and women; exercise tests*

The Effects of Aerobic Exercise Training on Changes of Resting Inflammatory Risk Factors and Physical Fitness of Self-report Addicted Persons to rehabilitation Centers

Bahareh Sheik sarraf; Fazollah Fatollahi; Khosro Jalali; Mohammad Faramarzi; Majid Soltani

Abstract

The purpose of this study evaluated the effect of a period of aerobic exercise on elected resting level changes; some new inflammatory cardiovascular risk factors and fitness addicts to rehabilitation centers is introduced .30 people representing their drug rehabilitation centers with a mean age ($37 / 2 \pm 93/23$); height ($70 / 2 \pm 72 / 1$); weight ($20 / 5 \pm 40/66$); BMI ($59 / 1 \pm 58/22$) randomly selected as the statistical sample. Blood samples were collected in two stages. All physical and blood tests a week before the start of training courses and 24 hours after the last training session with the same chronological order were measured And was transferred to the laboratory. To test hypotheses; and discover meaningful relationships; especially compared to the changes in levels of CRP; fibrinogen; LDL; HDL; and white blood cells before and after pair-t-test and also compare their concentration among a group of independent t-test analysis was used. Between levels; CRP; fibrinogen; LDL; HDL; and white blood cells before and after exercise; there is a significant difference ($P \leq 0/05$). Between the results of the rate; CRP; fibrinogen; LDL; HDL; and white blood cells among the different groups were significantly different according to result of present research eral; our research data indicate beneficial effects of moderate intensity exercise; independent of any diet on weight; BMI; WHR; variables related to health-related fitness;; CRP; fibrinogen; LDL; HDL and plasma white blood cells these people are. Overall; this research could exercise program for these classes of people who have been in the crowd increased risk of diseases associated with inactivity are to provide.

Key words: *Exercise; Heart risk factor; CRP; Fibrinogen; HDL; LDL; WBC*

EFFECT OF PHYSICAL ACTIVITY ON BONE MASS DENSITY IN THE ATHLETES WOMEN

Maryam Abdollahi; Parvaneh Nazarali; Parichehr Hanachi

Alzahra University

Abstract

Patterns of training different have different effects on bone mass density in the athletes that is not well investigated in the athlete's women.

12 handball players and 12 karate players with at least 10 years of sports background and the average age between 20 to 25 were selected; not by randomly but with aim; Also 12 inactive people were considered in order to control the case. Bone mass density of objects measure by DEXA. Researchers examine hypothesis by ANOVA.

In this research; the BMD in hip joint; lumbar spine [L1-L4] and proximal of forearm were significant among of the groups ($P < 0.05$).

Perform of stably and long time of sport activities has saleint effect on bone mass density of athletes.

Key words: *Athletes Women; Physical Activity; Bone Mass Density*

EFFECTS OF A PERIOD SELECTED AEROBIC TRAINING ON PULMONARY FUNCTION AND HEMATOLOGICAL FACTOR IN CHEMICAL WEAPONS VICTIM WOMEN

Nikuo Khosravi; Parvaneh Nazarali; Somayeh Yazdan pajoh

Alzahra University

Abstract

The aim of the present study was effects of a period selected aerobic training on pulmonary function and hematological factor in chemical weapons victim women .For this reason 31 women without chemical acute pulmonary disease participate in this study and were divided two groups ;training (mean age :30/7±5/89;height :161/1±5/18;weight:64/1 ±7/39)and control (mean age:32/8±6/08; height :159/0±3/52; ;weight:69/7 ±12/38).Heart rate and systolic and diastolic blood pressure at rest and after the initial fasting blood samples obtained from subjects .Then subjects performed exercise program include aerobic training for 8 weeks (3day a week for 30-40 min)with the intensity of 40%-60% MHR .Correlated T- test between groups and independent groups was used($p<0/05$).Results of this study showed that a period selected aerobic training was significantly effect on pulmonary function($\%FEV_1$, $\%MVV(\%75\text{-}\%25\%)FEF$, $\%FVC/ \%FEV_1$)and no significant effects on hematological factor (WBC-RBC-HB-PLT-HCT) in chemical weapons victim women.

Key words: *Hematological Factor; Selected Aerobic Training; Chemical Weapons Victim Women*

THE EFFECT OF EIGHT WEEKS AEROBIC TRAINING ON RENAL FUNCTION MARKERS IN OBESE GIRLS

Tayebeh Amiri Parsa; Alireza Hoseini Kakhk; Marzye Azarniveh; Mohammad Reza Hamedinia

Abstract

The purpose of this study was the study of the effect of eight weeks aerobic training and detraining on renal function markers in obese girls. 24 obese girls ($BMI \geq 32$) divided into two groups: aerobic and control. Aerobic training; trained aerobics exercise 8 weeks; 10 days detraining was followed. Before and after training and detraining blood sample were taken. Cys C; Crn and GFR measured. The results showed Cys C decreased and Crn and GFR increased (not significantly). Detraining had no effect on markers. Aerobic training has positive effect on renal function markers in obese girls. However; for more effectiveness the training program with higher duration and volume and dieting recommended.

Key words: *Aerobic training; Renal Function; Cystatin C; Obese girls*

ASSOCIATION AMONG LIFESTYLE STATUS AND DYSLIPIDEMIA IN SELECTED POPULATION OF SHIRAZ ADULTS

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Islamic Azad University; Sciences & Researchs Fars Branch

Abstract

Changes in lifestyle such as dietary and physical activity habits may effective strategy for improve dyslipidemia however; it still remains unclear. Thus; the aim of this study was to determine the association among lifestyle status and dyslipidemia in Shiraz adults. One hundred forty four male (n= 61; mean \pm SD: 38.8 \pm 14.2 years of age) and female (n= 83; mean \pm SD: 44.9 \pm 16.5 years of age) participated in this study. Each subject's lifestyle status was assessed by a self-administered questionnaire based on Breslow's lifestyle index and diet was assessed using a 22-item food-frequency questionnaire. The results demonstrated a negative relationship between Breslow's lifestyle index; physical fitness and education levels with dyslipidemia in the both sexes. On the other hand; the results showed that there is a positive relationship between less healthy foods with total cholesterol; triglyceride and LDL-c and an inverse relationship between less healthy foods with HDL-c. General linear regression analysis demonstrated that food consumption pattern was independently associated with blood lipid profile in female. In conclusion; unhealthy lifestyles may cause dyslipidemia.

Key words: *Breslow's Lifestyle Index; Physical Fitness; Food Consumption Pattern; Dyslipidemia*

EFFECTS OF AEROBIC EXERCISE INTENSITY ON BODY COMPOSITION AND LIPID PROFILE CHANGES IN OBESE/OVERWEIGHT WOMEN

Neda Gahdiri Bahram abadi; Sayed Mohammad Marandi; Fahimeh Esfarjani; Hosein Mojtahedi

Isfahan University

Abstract

Purpose- To examine the effects of aerobic exercise intensity on body composition and lipid profile changes in obese/overweight women. **Method-** Forty-Five middle-aged; obese/overweight women (age: 25-40years and $BMI \geq 25-30 \text{ kg/m}^2$) completed one-of-three-10 week aerobic exercise interventions: 1) Moderate exercise training (45- 50% HRR_{max}); 2)intensity aerobic exercise(70-75% HRR_{max}); 3)no exercise training(control). Participants exercised 3days.week⁻¹for 10 weeks per session 60 minutes. The intensity of aerobic exercise were controlled by lunch caliper and measurements of body composition and serum lipid profile indices in per and post test. **Results-**Moderate and intensity aerobic exercise has a significant changes on weight ($p < 0/000$); fat percent ($p < 0/04$); BMI ($p > 0/001$); fat weight($p < 0/003$); lean body weight($p < 0/02$); WHR($P < 0/000$); HDL($P < 0/000$) in patients. The differences between groups were specialized by Sheffe test. **Conclusions-**The present data indicate that body composition and lipid profile changes are affected by intensity of aerobic exercise training for reducing weight; fat percents; BMI; fat weight; lean body weight; WHR; HDL in obese/overweight women.

Key words: *Physical Activity; Body Composition; Lipid Profile; Obese/overweight*

COMPARISON OF DIFFERENT INTENSITY CIRCUIT RESISTANCE TRAINING ON APPETITE OF MALE AND FEMALE ATHLETES STUDENTS

Rastegar Hosseini; Hamid Arazi; Hiwa Moradiani; Somayeh Roohi

Guilan University

Abstract

The purpose of this study was to compare the effect of different resistance circuit training intensity on the athlete's appetite. The target population consisted entirely male and female athlete's student the University of Guilan. After translation the standard questionnaires (VAS); (Flint; 2000) and modified; were evaluated by professor's faculty of physical education and sport sciences. The reliability analysis yielded (Cronbach Alpha 0.63). For this purpose; 45 males (3 groups of 15 persons) and 45 females (3 groups of 15 persons); with mean age of $21 \pm 1/85$ and $21 \pm 24/2$ years; height $176/02 \pm 5/99$ and $161 \pm 4/93$ cm; weight $68/36 \pm 9/29$ and $55 \pm 6/89$ kg and body mass index $21/02 \pm 1/9$ and $21/91 \pm 2/9$ respectively. Subjects in three separate sessions performed circuit resistance training with different intensity (50%; 65% and 80% one repetition maximum) randomly. The collected data was analyzed by KA; t-test; one-way ANOVA and Tukey. Results showed that exercise training with intensity of 50% vs 65% 1RM significantly increase appetite of male and female ($P < 0.05$). While the differences in appetite between exercise with intensity of 65% vs 80% 1RM and 50% vs 80% 1RM in male and female were not significant ($p > 0/05$): Based on results from this study can conclude that the circuit training with low intensity compared with high intensity can be effective in reducing appetite. Therefore; with respect to exercise consideration; we suggest that low exercise intensity to prevent tendency to high consumption; particularly in fields requiring weight control is recommended.

Key words: *Appetite; Male and Female Athletes; Circuit Resistance Training*

EFFECT OF STRENGTH TRAINING WITH CONSUMPTION ZINC SUPPLEMENT ON STRENGTH AND SERUM LIPID PROFILE ON ACTIVE WOMEN

Fatemeh Heiat¹; Parvaneh Nazarali¹; Parichehr Hanachi¹; Shekoufeh Golkhou¹; Mojtaba Hadi pour²

1. Alzahra University; 2.Higher Education Complex of Fasa

Abstract

The aim of this study was to investigate the effect of zinc supplement on strength and serum lipid profile on physical activity women. Method: The target population of research was all of physical education students in Alzahra University. 24 subjects (age=20.33 ± 1.7 yrs; height=163.12 ± 6.75 cm; weight=60.66 ± 8.27 kg) selected randomly. Subjects completed testing session at per week up to 8 weeks that included 1RM test on bench and leg press (triceps& quadriceps strength) and blood sample analysis to determined TG; TC; LDL; HDL; and LDL/HDL. Subjects were then divided in placebo and experiment group randomly. Either placebo (1gr/d dextrose) and zn group (25mg/d zn) to begin resistance training for 8 weeks according to a protocol that design by author. The collected data were analyzed by spss ver:11 through t student (dependent & independent).Result: the results indicated that: 1- zn supplement (25mg/d) had non-significant effect on strength of subjects. 2- zn supplement (25mg/d) had non-significant effect on serum lipid profile in both groups. Conclusion: The findings of this study indicate that using zn supplement dos not appear enhance strength and also dos not have positive effect on serum lipid profile. According to this finding author suggested that using of zn supplement should be under taken by physician. It is required that non significant results may because of amount of used the supplement; the kind of contraction recruit in the resistance training and the time of apply the supplement therefore these results maybe not severe and exceed investigation seem necessary.

Key words: *Zinc Supplement (zn); Lipid Profile; Resistance Exercise; Active Women*

COMPARISON OF SELECTIVE AEROBIC AND PILATES EXERCISE ON LEPTIN LEVELS & CARDIOVASCULAR RISK FACTORS IN SEDENTARY WOMEN

Azam Ramezan khani; Parvaneh Nazarali; Parichehr Hanachi

Alzahra University

Abstract

The aim of this study was Comparison of selective aerobic exercise and Pilates trainings on leptin and cardiovascular risk factors in sedentary women.

Materials and Methods: Call the home health area 2 Tehran municipalities; Thirty four women (age: 30-40y) were recruited and divided randomly in groups as following: control (C; n=10); aerobic (EX; n=12) and Pilates

(n=12). Participants of EX and Pilates groups performed trainings 3 sessions/week; 45 min/session for 16 weeks at 60-75% of maximum heart rate. In order to determine leptin and blood profiles; blood samples were taken at baseline and 16 wk. All statistical analyses were performed with SPSS 16.0. Level of significance were set at $P<0.05$.

Results: Serum Leptin showed significant decrease in EX and Pilates following 16wk; and were different among experimental groups. Blood lipids weren't significant changes within and between groups; however the ratio of HDL-C/LDL-C increased significantly in experimental groups.

Conclusion: Serum Leptin concentrations showed significant changes within and between exercise groups following 16wk; however exercise interventions were poor achieved improvements in some of blood profiles.

Key words: *Obesity; Selective Aerobic Exercise; Pilates Exercise; Leptin; Sedentary Women*

THE EFFECT OF 6 MONTHS MODERATE AEROBIC TRAINING ON SOME SELECTIVE MARKERS OF IMMUNITY SYSTEM OF AGED SEDENTARY MEN

Mohsen Akbar pour¹; Maghsoud Piri¹; Mohammad Ali Azarbayjani¹; Hamid Agha Alinejad¹; Mahdi Fahimi²

1. Islamic Azad University Central Tehran Branch

2. Ghom University

Abstract

The purpose of this study is determining the effect of 6 months moderate aerobic training on VO_{2max} and some selective markers of immunity system of aged sedentary men. Forty sedentary and healthy aged males (mean \pm SD age 65 ± 2 years and weight 74 ± 12 kg) were selected and voluntary then randomly divided into two experimental and control group.. Thus in case of fast all subjects were taken vo_{2max} test and blood sample (pretest). Afterward the experimental group performed moderate aerobic training three times a week for 6 months (the first 3 months with intensity 35-45%HRR and duration 20-30minutes and the second 3 months with 45-60%HRR and duration 30-40 minutes) and control group didn't had any regular training program. Moreover; the above mentioned tests(vo_{2max} and blood sampling) were taken at three months (midtest) and at 6 months(posttest) and number of $CD4$ and $CD8$ cells and the $CD4/CD8$ ratio were measured by floctometry methods. Statistical analyses carried out on data by repeated measures ANOVA; & t student tests. The result of analysis showed that; aerobic training increase vo_{2max} (19/5 %)($P < 0.05$) . the amount of $CD4$ and $CD8$ in training group had increased significantly than the control group(the rate 28/5 and 33/95 %)($P < 0.05$) . the $CD4/CD8$ ratio in training group was significantly lower than the control group(the rate

8%)($P < 0.05$).In conclusion; moderate aerobic exercises increase vo_{2max} and number of $CD4$ cells and $CD8$ cells in healthy elders if persists at least 6 months; improving immune system function to protect them against immune – system dependent aged men.

Key words: vo_{2max} ; **Aerobic Running**; $CD4$; $CD8$; **Ratio of $CD4/CD8$**

THE EFFECT OF AEROBIC EXERCISES IN WATER AND LAND ON SOME PHYSICAL AND MOTOR FITNESS FACTORS IN NON- ATHLETE GIRLS STUDENTS

Alireza Rahimi¹; Ardeshir Zafari²; Malihe Ardakanizadeh³

1. Islamic Azad university Karaj Branch

2. Islamic Azad University Zanzan Branch

3. Damghan University

Abstract

The purpose of this research is the effect of aerobic exercise in water and land on some physical and motor fitness factors in non- athlete girls students. The method of research is kind of quasi-experimental research. Statistical society included non- athlete girl's students of basic science university in Damghan.

Subjects consisted 30 people (18- 25 age) that selected from statistical society by random sampling are placed on two exercised grouping water and land .Factors of physical and motor fitness measured and they included: aerobic power; explosive power; balance and reaction time. Both exercised groups do aerobic exercise during six week and 3 sessions per week (18 sessions) and after doing aerobic exercises; post test acted with equal condition. For statistical analyses used from description statistical and t test depended and t test independent. Research results shown that aerobic exercise on land has significant effect on aerobic power; balance and explosive power but not significant on reaction time. Aerobic exercise in water on factors of balance; aerobic power and explosive power has significant effect after exercise. But Six weeks aerobic exercise in $p < .05$ and not significant effect on reaction time. Also; results of research are shown that between aerobic exercise in land and aerobic exercise in water not significant difference.

Our findings suggested in addition of aerobic exercises in land; it can use of aerobic exercise in water for achieving more physical and motor fitness.

Key words: *Physical Fitness; Motor Fitness; Aerobic Exercise in Water; Aerobic Exercise in Land; Non- athlete Girls*

Effects of Resistance Exercise Intensity on Adipocytokines and Insulin Sensitivity

Arash Khodamardi; Sajjad Ahmadi zad; Khosro Ebrahim; Mahdi Hedayati

Shahid Beheshti University

Abstract

The present study was designed to determine the effect of resistance exercise intensity on leptin; adiponectin and insulin sensitivity in young healthy men. Methods: Fifteen healthy male subjects voluntarily participated in the study. After two familiarization sessions and determining the maximal strength; all subjects completed three resistance exercise trials at an intensity corresponding to 30%; 55%; and 80% of 1-RM randomly. Two blood samples were obtained before exercise and immediately after exercise and analyzed for leptin; adiponectin; plasma insulin and glucose. Results: Data analysis revealed that resistance exercise increases adiponectin; insulin; glucose; concentrations and insulin sensitivity; while it reduced the leptin concentration significantly. However; resistance exercise intensity had no significant effect on any of the above variables except for leptin concentration. Conclusions: Based on the findings it could be concluded that when the resistance exercise volume is equal; except for changes in leptin these changes are not related to the intensity of exercise.

Key words: *Adiponectin; Leptin; Lnsulin Sensitivity*

THE EFFECT OF EIGHT WEEKS AEROBIC TRAINING ON PLASMA FIBRINOGEN IN OVERWEIGHT MEN

Amir Rashid Lamir; Mohsen Jafari

Abstract

The aim of this study was to examine the effects of eight weeks aerobic exercise on fibrinogen levels in middle aged overweight men. 30 inactive middle aged men that their BMI were between 25 and 30 randomly assigned into experimental and control groups (each group 15 subjects). Subjects of experimental group accomplished eight weeks (3 sessions per week) aerobic exercise with intensity of 50 to 70 percent of their maximum heart rate. Before and after trainings; weight; body fat percent and fibrinogen levels of subjects were determined. Obtained Data were analyzed using independent samples T test. After trainings Results showed significant reduction of weight; BMI; body fat percent and fibrinogen levels in experimental group ($P < 0.05$). Overall; eight weeks regular aerobic exercise through reduction of weight; body fat and fibrinogen cause reduction of risk of myocardial infarction.

Key words: *Aerobic Training; Fibrinogen; Overweight Men*

THE EFFECT OF 15 SESSIONS AEROBIC TRAINING ON SERUM LEPTIN CONCENTRATION IN SEDENTARY FEMALES

Ardeshi Zafari; Maryam Rostami

Islamic Azad University Zanzan Branch

Abstract

Leptin hormone which plays a major role in regulating the intake of energy also has great effect on appetite. Exercise is considerable ways in obesity treatment. This study is trying to investigate the impression of exercise on serum Leptin levels in untrained females. This semi experimental study was done according to mean compare method on 32 untrained girl's (20-25 yrs); who were volunteered Participation and randomly divided into control and training groups. The independent variable had is aerobic training (5 weeks * 3days* 1hour) was based on the progressive overload principal. Leptin was measured by ELISA method using pars azmon kits. Mean values of pre and post test of leptin were compared by independent and paired sample t tests ($p \leq 0.05$). The comparison of the mean in post test indicated that aerobic exercise might not have affected Leptin level ($p=0.44$).

Key words: *Leptin; Aerobic Training; Women*

THE COMPARISON OF THE EFFECT OF AEROBIC TRAINING PROGRAM WITH DIET AND DIET ON CARDIO RESPIRATORY FITNESS AND ANTHROPOMETRIC INDICES IN PATIENTS WITH NON ALCOHOLIC STEATOHEPATITIS

Hosein Nikrou; Hamidreza Sima; Sayed Reza Attarzadeh; Hoseini; Mohsen Nemati

Abstract

The purpose of this study to were evaluate and compare the effects of 8 weeks of aerobic training program accompanied by diet and diet alone on Anthropometric Indices and cardio respiratory fitness in patients with Nonalcoholic Steatohepatitis (NASH). Thus; 23 NASH volunteers with an age range of 25 to 50 years; randomly they were divided in two experimental groups; group1: 12 patients; intervention aerobic training program accompanied by a diet (D+Ex) and group 2: 11 patients; intervention diet program (D)). Anthropometric Indices

and peak oxygen consumption was measured in the beginning and end of eight weeks of the intervention. SPSS software was used to analyze data. Statistical test were; K-S; Paired Samples T Test and Independent-Samples T Test; which respectively used for ensure normal distribution; compared within group and between groups; and the was accepted statistically significant level ($P < 0/05$). Results After 8 weeks showed that both groups in anthropometric tests decreased significantly and peak oxygen consumption increased significantly and there were also differences significantly between groups in variables WC; WHpR; WHtR and VO₂peak. a more favorable than impact of diet alone on reducing WC; WHpR; WHtR and increased VO₂peak in patients with non alcoholic Steatohepatitis.

Key words: *Nonalcoholic Steatohepatitis; Aerobic Training Exercise; Diet; Cardio Respiratory Fitness; VO₂peak; Anthropometric Indices*

A COMPARISON OF THE PREFERRED WALKING SPEED (PWS) AND ENERGY EXPENDITURE BETWEEN OBESE AND NORMAL WEIGHT WOMEN

Neda Aghaei; Saeideh Shadmehri

Abstract

The aim of this study is to comparing PWS and energy expenditure in a rang of speeds between obese and normal weight women. Nineteen non-athlete students were selected and divided into two groups based on their BMI: obese (BMI= 32.1 ± 1.7 ; N=9) and normal weight (BMI= 21.4 ± 1.4 ; N=10). The subjects' VO_{2max} was measured using a modified Bruce and an open circuit respirometry system. The subjects' PWS was measured in a field along a 70-m section. The energy expenditure (EE) was measured while subjects walked on a treadmill at six different speeds (0.50; 0.75; 1.0; 1.25; 1.5; 1.75 and PWS m/s; 5 minute trails; with a 5 minute rest period between trails) using open circuit respirometry system. Independent Student's t tests was used to determine group differences in physical characteristics (i.e.; height; body mass; lean body mass; percent body fat; VO_{2max} ; and preferred walking speed). Two-factor repeated measures ANOVA was used to determine how walking speed affects energy cost per distance. The statistical analyses of the study revealed no significant differences between PWS and energy cost per distance in this speed for obese women (PWS= 1.2 ± 0.1 ; EE= 4 ± 0.4) and normal weight women (PWS= 1.3 ± 0.1 ; EE= 2.7 ± 0.4). The optimal speed in normal weight women was 1.3 m/s and in obese women were 1.23 m/s that they used respectively 2.87 and 2.75 j/kg/m energy in this speeds.

Key words: *PWS; Energy Cost per Distance; Optimal Speed*

EFFECT OF A TAPERING PERIOD TO PEAK THE PERFORMANCE

Mahdi Bayati; Hamid Agha Alinejad; Ahmad Donyamali; Vahid Yousefi

I.R.Iran Canoeing; Rowing & Sailing Federation; National Canoeing; Rowing & Sailing Academy

Abstract

The purpose of present study was to examine 3 weeks of tapering to peak the aerobic performance of elite kayakers. Eleven elite kayakers (7 males and 4 females) volunteered to participate in this study. Pre and Post the tapering period; subjects performed a progressive exercise test on a kayak ergometer to determine aerobic performance variables. Tapering protocol consisted of 30 percent decrease of training load for a 3-week period. All data were analyzed using dependent t-tests. The alpha level for statistical significance was set at $P \leq 0.05$. The results of the investigation indicated that VO_{2max} (absolute and relative); the minimal velocity associated with VO_{2max} and VO_2 in lactate threshold increased significantly after the tapering period ($P < 0.05$). There are not significant differences in other variables ($P > 0.05$). The present findings suggest that a 3-week tapering period results to increase aerobic performance in elite kayakers.

Key words: *Tapering; Peak the Performance; Kayaker*

COMPARISON THE EFFECT OF YOGA AND AEROBIC TRAININGS ON BODY COMPOSITION AND PHYSICAL FITNESS OF UNTRAINED WOMEN

Vahideh Momeni; Fahimeh Esfarjani; Mohammad Marandi

Isfahan University

Abstract

The present study was designed to comparison the effect of yoga and aerobic trainings on body composition and physical fitness of untrained women. Statistical population of this study was 30 untrained women (aged 21-32 yr) in Meybod. The participants were randomly and equally divided in three groups (yoga; aerobic; control). Experimental groups train their special exercise program during 8 weeks. Study variant was weight; waist: hip ratio (WHR); fat percent (%BF); aerobic power; hand grip; flexibility. Data was analyzed using descriptive statistics; analysis of covariate (ANCOVA) and Scheffe post hoc test. The results showed a significant reduction between WHR; %BF in aerobic and yoga groups; and weight in aerobic group; toward control group. Too there were a significant increase between aerobic power and hand grip in aerobic and yoga groups; and flexibility in yoga groups; toward control group. In base on this results there are no significant different between two aerobic and yoga training. But for increasing flexibility; yoga training was better than aerobic training. Too for reducing weight; aerobic training was better than yoga training.

Key words: *Yoga; Aerobic; Body Composition; Fat Percent; Aerobic Power; Flexibility*

THE INFLUENCE OF PHYSICAL FITNESS AND AEROBIC TRAINING ON QUALITY OF LIFE (QOL) IN MALES AND FEMALES

Parvaneh Nazarali

Alzahra University

Abstract

Lifestyle is the most important factor that can affect health. Recently; a broader concept of health is discussed and this is QoL improvement. QoL; well being and life satisfaction as an indicator of general health and mental health are considered. So; the aim of present study was to investigating the effect of physical fitness and aerobic training on QoL of males and females.

In this study 390 people (250 females and 140 males) from Khorasan Razavi province (Mashhad city) selected with cluster sampling among males and females participating in physical fitness and aerobic training program. To evaluate QoL used SF36 questionnaire. Data was analyzed with descriptive and inferential statistics and SPSS software.

Overall; subjects included 64% and 34% females and males; respectively. Based on field and gender breakdown; females participated in physical fitness and aerobic training program 24.4% and 75.6%; respectively; and males participated in physical fitness and aerobic training program 50.7% and 49.3%; respectively.

Regarding to evaluate QoL indexes (physical activity; physical disorders; mental disorders; energy / fatigue; mental health; social activity; physical pain and general health); results are:

1. Between males and females participated in physical fitness training program; in physical disorder and pain indexes; females were better than males and there was significant difference between them ($p < 0.05$).
2. Between males and females participated in aerobic training program; in social activity factor; males better than females and there was significant difference between them ($p < 0.05$).
3. There was no significant difference in females participated in physical fitness and aerobic training program in QoL factors ($p < 0.05$).
4. There was no significant difference in male participated in physical fitness and aerobic training program in QoL factors ($p < 0.05$).

In general; there was no significant difference in QoL level of females and males participated in physical fitness and aerobic training program.

Exercise Physiology

Poster Presentation

A COMPARISON BETWEEN THE EFFECT OF ONE SESSION AEROBIC AND ANAEROBIC EXERCISE ON SALIVARY IGA/TOTAL PROTEIN VARIATION NONATHLETIC GIRL

Monavar Tabarestani¹; Sirous Choobineh²; Mohammad Reza Kordi²; Mohsen Tabarestani¹

1. Ferdowsi University of Mashhad

2. Tehran University

Abstract

Objective study were compared the impact of a session of aerobic and anaerobic activity than changes in IgA Salivary and total protein non-athletic girls. Subjects of present study were 36 female non-athletic divided randomly in three groups (anaerobic activity with mean age of 23 ± 1.91 years; aerobic activity with mean age of 21 ± 1.45 years and the control group with mean age 23.25 ± 2.09 years). Salivary samples were collected before and immediately after the execution of the desired test. In this study; was used the RAST test and Shuttle Run. Analysis of statistic data done using one-way analysis of variance and Correlated t-test. The results of the research showed no significant difference changes total protein salivary IgA ratio studied three groups. Correlated t-test results showed no significant changes within total protein salivary IgA ratio in any of the groups.

Key words: *Salivary IgA; RAST Test; Shuttle Run Test; Non-athletic girls*

THE EFFECT OF WHOLE BODY VIBRATION AS A WARM UP TOOL ON PERFORMANCE INDEXES OF ANAEROBIC POWER AND FLEXIBILITY IN ACTIVE AND INACTIVE MEN

Sajjad Arshadi; Hasan Matin Homaei; Sayed Javad Mir ghani

Islamic Azad University Central Tehran Branch

Abstract

The purpose of this study was the effect of whole body vibration as a warm up tool on anaerobic performance indexes and flexibility in active and inactive men. The participants were 12 trained healthy male and 12 untrained healthy male. The study was conducted in two days with time interval of one week. In the first day, 15 min active warm up was carried out including jogging; stretching movements; and cycling on ergometer; Then, several tests were carried out; sit and reach; vertical jump and Wingate Test of 30s; for assessing anaerobic peak power; average power; minimum power and fatigue index percentage. In the second day, participants used the vibration with frequency 30 HZ and amplitude 10 mm for 15 min; then the tests of sit and reach; vertical jump and Wingate Test of 30s were implemented. A Student's paired *t*-test was used to compare the statistical differences in active warm up and WBV. Differences among means were considered statistically significant by the criterion of probability value ≤ 0.05 .

Results showed that WBV resulted in significant increases in performance indexes in active men and inactive men; but this change was more in inactive men in comparison with active men.

On the basis of these results we conclude that WBV is an effective tool for optimizing subsequent muscular anaerobic performance. Therefore, WBV leads to increasing in muscular performance because vibration may elicit excitatory flow through short spindle – motoneuron connections in the overall motoneuron inflow.

Key Words: *Anaerobic Performance; Flexibility; Warm up; Whole Body Vibration*

THE EFFECT OF WATER IMMERSION AND PASSIVE RECOVERY ON BLOOD LACTATE AND SUBSEQUENT SWIMMING PERFORMANCE

Zeynab Rezaei; Fahimeh Esfarjani; Sayed Mohammad Marandi

Isfahan University

Abstract

This study investigated the effect of water immersion and passive recovery on blood lactate and subsequent swimming performance. Ten elite woman swimmers; age (17.8 ± 2.2); completed three experimental trials differing in 15 min recovery intervention three times in a week with 48 hrs distance: land (sitting near the pool) (PAS); contrast water therapy (CWT) (alternating hot 40°C ; 2 min /cold 25°C , 1min) and cold water immersion(CWI)(25°C).

Before and after 100-meters front crawl and after the recovery blood lactate; heart rate and skin temperature were recorded. In during of recovery; blood lactate and heart rate evaluated each three minute. After the recovery; participants repeated 100-meters front crawl.

Results show that Heart rate decreased significantly in CWI toward PAS. Lactate removal was largest in CWT compared to the PAS. Skin temperature and fatigue decreased significantly after immersion and significant difference was observed in subsequent performance after immersion toward PAS ($p < 0.05$). So it seems immersion conditions; can enhance quality of recovery.

Key words: *Contrast Water Therapy; Cold Water Immersion; Repeated Swimming; Lactate*

COMPARISON THE EFFECT OF THREE STRENGTH TRAINING METHODS WITH MAXIMAL LOADS ON IMPROVING PECTORAL AND BICEPS MUSCLES STRENGTH

Hadi Moradi; Hosein Mojtahedi; Farhad Ahmadi; Mahdi Chahian

Isfahan University

Abstract

The aim of this study is to compare the effect of three strength training methods with maximal loads on improving pectoral and biceps muscles strength. Maximal strength of 45 male students of Isfahan University; were measured pre and post period with (1 RM) test in bench press and biceps curls exercises. Subjects replaced in three groups and trained 8 weeks. Data were analyzed by using ANOVA and LSD tests. Flat pyramid loading pattern (C) indicated significant difference with pyramid (A) and reverse pyramid (B) patterns in maximal strength of bench press. Too; maximal strength of biceps curl; flat pyramid loading pattern indicated significant difference than pyramid pattern. Can be concluded; when the aim of training is improving of maximal strength; using of flat pyramid loading pattern (FPLP) priority to pyramid and reverse pyramid loading patterns.

Key words: *Strength Training; Muscles; Maximal Load*

EFFECT OF TWO KIND OF EXERCISE WITH DIFFERENT INTENSITY ON WHITE BLOOD CELL SUBSET IN NATIONAL FEMALE KAYAKERS

Sanaz Zanjani; Parvaneh Nazaali; Masoumeh Shojaei

Alzahra University

Abstract

The aim of this study is to determine the effect of exercise with low and high intensity in some immune factors in elite women's kayakers. Method: 11 subjects with mean age ($18/72 \pm 1/1$) weight ($57/7 \pm 6/24$) and high ($165 \pm 6/16$) participated in the study. Before exercise program blood sample were taken at rest after warm up they rowed 30 minutes with 65 row rhythm per minute. Suddenly after exercise blood sample were taken again and was sent to laboratory. High intensity exercise protocol was done 24 hours later in the same condition. They rowed 30 minutes with 90 row rhythm per minute and bloods sample were take. Statistical analyses method used were ANOVA with repeated measures. Result: The result of research showed that one session exercise with low intensity caused decreasing in lymphocyte. Eosenophils; but caused an increasing in Monocyte ; Neutrophil and white blood cell which none of them were significant ($P > 0/05$). Also one session exercise with high intensity caused a decreasing in Lymphocyte ; Monocyte; and Eosenophil; but caused increased in Neotrophil ; White Blood Cell; this increasing was just significant in White Blood Cell ($P < 0/05$).

Key words: *WBC; Lymphocyte; Monocyte; Neutrophil; Eosinophil; Intensity*

COMPARISON OF ACTIVE VERSUS PASSIVE RECOVERY ON SUSTAIN ABILITY OF REPETITIONS; BLOOD LACTATE AND RPE DURING REPEATED BOUTS OF SQUAT AND BENCH PRESS

Abouzar Jorbonian; Hamid Arazi; Mohsen Ebrahimi

Abstract

The aim of this study was Comparison of active versus passive recovery on sustains ability of repetitions; blood lactate and RPE during repeated bouts of squat and bench press Methods: 18 trained male performed 2 sessions of resistance exercise with 75% 1RM in 4 sets to exhaustion; so that 9 subjects performed passive recovery (sitting on bench) between bouts of squat exercise and 9 subjects performed active recovery (stretch exercise) between bouts of squat and bench press exercise. Duration of recovery period between sets was 3 minutes. After each set; Frequencies of repetition; Blood sample and RPE Results: In bench press exercise; Significant differences ($p \leq 0.05$) were observed between two; three and four bouts active recovery versus passive and In squat exercise; significant differences were between four bout active recovery versus passive recovery in sustain ability of repetitions ($p \leq 0.05$). Active recovery doesn't improved blood lactate and RPE Conclusion: Present study indicates that active recovery (stretch exercise) doesn't improved sustainability of repetition; blood lactate and RPE in between sets comparing with passive recovery.

Key words: *Active and Passive Recovery; Lactate; RPE*

TO INVESTIGATE THE EFFECT OF THE SELECTED AEROBIC EXERCISES IN WATER ON DEPRESSION IN PATIENT WITH MULTIPLE SCLEROSIS (M.S)

Asieh Ardalan; Mahmoud Hejazi; Mahmou Soltani; Abbas Nourian; Saleheh Noor nematollahi

Islamic Azad University Mashhad Branch

Abstract

Background and purpose: Multiple sclerosis is one of the most prevalent central nerves system chronic diseases. Being chronic of disease nature; not – having augury and lacking definite treatment and making involvement individual during adolescence are causing to create several neurosis's in the patients which among them; the depression is the most prevalent. The purpose of this research is to investigate the effect of an exercising program for eight weeks within water on the depression with ms patients. Methodology: The research type is practical and its method is semi- empirical among 100 ms female patients; 40 patients were selected as sample with the disease degree of 1 to 4; mean disease period of 6/22 years and aging range of 20 to 50 years and spitted randomly to two groups namely control group and experimental group which in each groups were 20 patients. An exercise program was performed by the experimental group for eight weeks; each week three exercising sessions along with maximum heart beat with intensity of 50-60 percents. The tools to collect information were including gold berg depression questionnaire. Data analyzing was performed by the independent t and correlated t tests in normal data. in order to normalize data was used kolmeograph smirnoph test. Findings: It was observed a significant difference between the pre-test; and post-test depression in the experimental group. ($p = 0/00001$) After finishing the exercising period; it was obtained a significant difference between control group and experimental group. ($p < 0.5$) Conclusion: Since the grouping exercises are proper to express the problems of MS patients which have been low social relationship; they cause to support them highly and provide base to communicate sensationally and constituently and also performing the aerobic exercises in water cause to improve depression in MS patients. Therefore; performing these exercises is recommended with patients as a non-medicinal effective way.

Key words: *Selected Aerobic Exercises in Water; Multiple Sclerosis; Depression*

THE EFFECT CHANGE SEQUENCES ORDER OF COMBINED TRAINING ON SOME BIOMOTOR ABILITIES

Hamid Reza Azmoon Zavieh; Aidin Vali zadeh; Lotfali Bolboli

Mohagheghe Ardebili University

Abstract

The purpose of this study was to investigate effect sequences order of combined training on maximal strength and aerobic capacity. Methods: Twenty eight physically active male university students were randomly assigned to participate for 8 weeks (3 days per week) in one of following training group: group C (n=8) served as a control; ES (n=10) and SE (n=10) combined the two programmers in different order during the same training session. The following measurements were made on all subjects before and after 8 weeks of training: weight; percent body fat; maximal oxygen consumption (ml/kg/min); and one repetition maximum (1RM) leg press (LP); 1RM bench press (BP). Results: VO₂max was significantly improved in both groups ES (11/7%) and SE (11/1%). No significant difference was observed in magnitude of increase VO₂max between groups ES and SE. Muscular strength significantly improved by 11/2% (BP); 46/1% (LP) for SE group and 17/7% (BP); and 52/2% (LP) for ES group. There was no significant difference between the two experimental groups for BP and LP.

Key words: *Combined Training; Strength and Endurance Training; Aerobic Capacity; Maximal Strength*

THE EFFECT OF TWO DIFFERENT REST INTERVALS ON THE NUMBER OF REPETITIONS OF SETS; EXERCISES AND TOTAL REPETITION RESISTANCE TRAINING SESSIONS FOR UPPER AND LOWER BODY

Ehsan Asghari; Hamid Mhebbi; Hamid Arazi; Arsalan Damirchi

Abstract

The purpose of this study was to investigate the effect of two different rest intervals on the number of repetitions of sets; different resistance exercises and total repetition resistance training sessions for upper and lower body. For this reason; 15 trained bodybuilders (age 19.7 ± 3.6 years; height 174.3 ± 6.5 cm and weight 72.9 ± 5.8 kg) took part in four testing sessions with 48 hours recovery between sessions voluntarily. In the first session; 10RM was measured. Two sessions involved lower body exercises (leg extension; leg curl and leg press); with two (Ra2) and five minute (Rb5) rest intervals. The other two sessions involved upper body exercises (bench press; triceps pulley and pec-deck) with two (Rc2) and five minute (Rd5) rest intervals. For statistical analysis of data; two-way repeated measures and LSD post hoc tests were used. The result showed that total of repetitions in Ra2 (68.5 ± 4.2) was significantly lower than Rb5 (81.1 ± 6.5) ($P < 0.05$). Similarly; the total repetitions was significantly lower in Rc2 (71.5 ± 4.5) compared with Rd5 (84.2 ± 5.8) ($P < 0.05$). The results indicate that the shorter rest intervals not only reduced repetitions per sets; per exercises and total repetitions in resistance training session; but also reduced repetitions in followed set per exercise and exercises in the same session.

Key words: *Rating of Perceived Exertion; Bench Press; Leg Extension; and Leg Curl*

8-WEEK AEROBIC EXERCISE EFFECTS ON PLASMA CONCENTRATIONS OF GHRELIN AND GH YOUNG WOMEN

Zahra Mir zendedel; Amir Rashid Lmyr; Ahmad Ebrahimi Atri

Ferdowsi University of Mashhad

Abstract

Ghrelin plays an important role in growth hormone secretion; energy balance and food intake behavior. We examined the effect of eight weeks of aerobic exercise on plasma GH and Ghrelin concentrations in young women. 20 young

Women with mean age $22 \pm 1 / 2$ years and BMI ($17/41 \pm 1 / 75$) voluntarily selected and randomly divided into experimental and control groups. Experimental group conducted aerobic training with intensity of 85% -90% maximum heart rate; three days a week and control group remained without training. plasma Ghrelin and GH were measured. Data analyzed with independent t test and Pearson correlation by spss software (version16).

Results: Plasma Ghrelin in experimental group increased and Plasma GH decreased significantly.

Conclusion: probably exercise-induced increase in plasma Ghrelin following 8 weeks of aerobic training; is due to negative energy balance and indicates that decrease in GH is not related to plasma Ghrelin levels.

Keywords: *Ghrelin; Aerobic Training; Appetite*

THE ROLE OF AEROBIC EXERCISE ON HEALTH AND CHANGES OF SOME BLOOD FACTORS OF FASTING MEN

Asghar Nik seresht; Narjes Basirat; Ali Asghar Sarvi; Amin Nik seresht

Abstract

Ramadan is the holy month for Muslims and they fast during this month. The purpose of this study was evaluating influence of selected exercise program and Ramadan fasting on plasma glucose; lipids and lipoproteins. Methods and results: Subjects of this study were 32 healthy; young untrained men who voluntarily participated in this study. They were divided randomly to two groups of exercisers (n=17; age: 25.76±5.27) and controls (n=15; age: 25.42±3.99). Blood samples were taken four times [1 day before the beginning of Ramadan Fasting (Pre-RF); 15th and 29th of the Ramadan and 30 days after the end of Ramadan Fasting (After- RF)]. Exercise training included aerobic exercises (intensity: 70% of maximal heart rate; frequency: 3 times a week; duration: 4 weeks). Statistical method of t and repeated measure tests were used for analysis. Triglyceride (TG) and very low density lipoprotein (VLDL) were significantly lower in exercise group at 15th of Ramadan and TG was significantly lower After-Rf ($P \leq 0.05$). There was no significant difference between other variables including low density lipoprotein (LDL); high density lipoprotein (HDL); total cholesterol (TC) and fasting blood sugar (FBS) in exercise and control groups ($p > 0.05$). In exercise group TG; VLDL and FBS decreased in day 15 versus pre fasting; TG and VLDL increased in day 29 versus day 15 and decreased in After-RF versus day 15 ($P \leq 0.05$). There were no significant changes within measures of control group ($p > 0.05$). Conclusion: It seems that metabolic response to fasting is closely related to interactive response of exercise and fasting.

Key words: *Aerobic Training; Fasting Men; Ramadan Month*

TO INVESTIGATE MAGNESIUM OXIDE ON MUSCLE STRENGTH AND MG LEVELS IN SERUM OF ATHLETICS WOMEN

Parichehr Hanachi¹; Ali Asghar Ravasi²; Shamsi Jangi Oskouei¹

1. Alzahra University; 2.Tehran University

Abstract

This study examined whether supplementing the diet with a commercial supplement containing Magnesium during training on upper and lower Trunk Strength and Mg levels in serum of athletics women. 20 women; who were physically healthy and had been experience in physical activity for at least last six months were participated in this study. The subjects were instructed to follow a normal lifestyle maintaining daily habits; to avoid any medications. The participant was randomly divided into 2 groups of; Mg and control. The groups of Mg; following endurance exercise and supplementation of Magnesium Oxide (250mg) and the control group followed the training without any supplementation. The blood sample was collected before and after the eight weeks in four groups to analyze Zn and Magnesium. The results show that supplementation of Mg for 8 weeks had no significant effect on muscle strength of lower body in three groups compared with control group. However Mg supplementation had significant effect on muscle strength of upper body (back; hand bending and chest muscles ($p < 0.05$)). There was not significant changed on rest of upper muscles. Conclusion: In conclusion the results of this research indicated that using Mg supplementation may cause positive effect on muscle strength.

Key words: *Mg Supplementation; Muscle Strength; Athletics Women*

A COMPARISON OF FAT OXIDATION IN WOMEN WITH NORMAL AND OVERWEIGHT DURING EXERCISE

Saeideh Shadmehri; Neda Aghaei

Abstract

The aim of present study was to investigate the effect of body fat mass on fat oxidation rates; maximal fat oxidation and the intensity that elicits maximal fat oxidation (Fatmax). Nineteen untrained girl students (aged 23.4 ± 1.70 yr; height 162.5 ± 15 cm; weight 66.5 ± 5.35 kg) participated in this study as subjects and divided into two normal weight (BMI = 21.3 ± 1.4 ; n=10) and overweight (BMI = 29.0 ± 2.5 ; n=9) groups. Subjects completed maximal graded exercise test on the treadmill. Gas exchange measurement and heart rate recording were performed throughout exercise. Fat oxidation rates were calculated using stoichiometric equations. A two way analysis variance for repeated measure; bonferroni and independent t test were performed to analysis data. The minimal level of significance was set at $p \leq 0.05$. compared with normal weight group (0.24 ± 0.05 g/min); however this differences were not statistically significant ($p \leq 0.05$). The comparison of substrate oxidation; at the same exercise intensities; showed MFO; Fatmax and fat oxidation rates; was similar in overweight and normal weight women. Therefore; it was be concluded that fat oxidation rates during exercise do not increased with increasing body fat.

Key words: *Fat Oxidation; Body Composition; Exercise*

THE COMPARISON EFFECTS OF SUBSTITUTION UPPER AND LOWER BODY EXERCISES DURING REST INTERVAL ON QUANTITY OF UPPER BODY PERFORMANCE

Ehsahn Asghari; Hamid Arazi

Abstract

The purpose of this study was to compare the effects of substitution upper and lower body during rest interval on quantity of upper body performance with 75% 1RM (Repetition maximum). 15 trained bodybuilders (age 20.9 ± 1.9 years; height 175.6 ± 4.5 cm and weight 74.8 ± 5.2 kg) took part in this study voluntarily. In the first session; 1RM was measured. During second to fourth session; subjects completed exercises during per session one models of bench press movement with inactive rest (p1); bench press movement with leg extension and inactive rest (p2); and bench press movement with seated rowing and inactive rest (p3) randomly. For statistical analysis of data; two-way repeated measures ANOVA and LSD post hoc were used. The result showed that all of three exercise model reduced the repetitions in continuous sets; and there were significant differences between continuous sets ($P=0.001$). Also; sustainability of repetitions in p1 exercise model was significantly higher than p3 exercise model ($P=0.001$); and p2 exercise model with p3 exercise model ($P=0.02$). The present findings indicated that; there were significant differences between lactate product during p1 and p3 models ($P=0.001$); and p2 and p3 models ($P=0.03$). Therefore; it seems that no significant between percentage of repetition and lactate production during exercise models p1 and p2; and this maybe in favor of combined exercises. Those reduce all times exercises and maintain the repetitions in higher level possibly.

Key words: *Bench press; Leg Extension; Seated Rowing; Sustainability of Repetition; Rest Interval*

HEART RATE; BLOOD PRESSURE; AND LACTATE RESPONSE TO SAUNA-INDUCED RAPID WEIGHT LOSS IN ELITE WRESTLERS

Hadi Rohani; Neda Aghaei¹

1. Islamic Azad University; Ali Abad Katool Branch

Abstract

Plasma volume reduction is the main physiological dehydration-induced change in body that has significant complication on cardiovascular stability and thermoregulation system during exercise. So; the purpose of this study was examining the potential dehydration-induced cardiovascular change in wrestlers during exercise as well as lactate response. Eleven elite wrestlers (mean age; 22.3±3.0 yrs; weight; 66.2±5.1 kg; BMI; 23.1±1.1 kg/m²; body fat; 11.9±3.5 %; VO₂max; 59.3±10.4 ml/kg/min) performed an 11-min progressive running test on treadmill after rapid weight loss via sauna exposure; once in non-weight loss condition. Post exercise serum lactate; blood hemoglobin and hematocrit concentration; in addition; heart rate; systolic and diastolic blood pressure were measured. ANOVA with repeated measure and paired t-test were performed at p≤0.05 significant to evaluate the difference between trails and time points. Average body weight loss in subjects was 2.3±0.4 % of body mass. Significant differences were not observed in blood hemoglobin and hematocrite concentration between trails. As well as; there was no significant difference in serum lactate between trails (8.5±3.8 vs. 9.2±4.6 mmol/l for dehydration and control trails; respectively; p>0.05). Heart rate during exercise has no significant changes; however; it was significant higher in rest and during 15 min recovery for dehydration trail compare to control trail (p≤0.05). Systolic blood pressure immediately after exercise was significantly higher in control trail compare in dehydration trail (169.8±25.9 vs. 147.0±14.0 mmHg in control and dehydration trail; respectively; p≤0.05). The results of this study was shown that rapid weight loss via dehydration up to this extent by trained athletes may be has no considerable effect on substrate metabolism. But; lead to dysfunction in cardiovascular system and has unfavorable effect on cardiovascular stability. Such effects may hazard recovery of wrestler in rest interval during competition; in consequence; athletic performance is declined.

Key words: *Wrestling; Rapid Weight Loss; Cardiovascular System; Lactate; Sauna*

EVALUATION THE CARDIOVASCULAR CHANGES AFTER ONE SESSION DIFFERENT RESISTANCE EXERCISE IN TRAINED MEN

Hadi rohani; Hamid Arazi¹

Guilan University

Abstract

The aim of this study was to evaluate the response of post-exercise blood pressure and heart rate to two different resistance exercise methods: Double set and Super set. 30 resistance-trained male students (age; 21.1±1.7 yrs; height; 175.5±5.1 cm; weight; 74.9±5.8 kg; body fat; 13.8±3.2%) divided randomly into three groups: Control; Double set; and Super set (n=10; each group). The subjects of Double set group performed exercises (bench press; dumbbell fly; Incline Press; lat pull-down; seated cable row and barbell row) in two sets of 10 repetitions with 70% of 1RM and one minute rest interval between sets and exercises. The Super set group performed the same exercises in antagonist muscles; but without rest interval between two consecutive sets. Control group performed no exercise. Heart rate; systolic and diastolic blood pressure measured before; immediately and each 10 min after exercise for 90 min. The Analysis of Variance (ANOVA) with Repeated Measures (group × time) was used to analyze of data; followed by post-hoc Bonferroni test; for $p \leq 0.05$. Mean of heart rate in both experimental groups was higher throughout post-exercise than base level as well as than Control group. Nonetheless; it was higher in Super set group compare to Double set group ($p \leq 0.05$). Systolic and diastolic blood pressure decreased in both experimental groups after exercise that they were significantly lower in Double set compare to Super set ($p \leq 0.05$); and maintained in lower levels for 90 min in post-exercise. Generally; blood pressure is decreased after resistance training that this post-exercise hypopressure behavior may be varies in different resistance training methods.

Key words: *Blood Pressure; Heart Rate; Resistance Training; Super Set; Double Set*

THE EFFECT OF MELATONIN ON CARDIOVASCULAR INDICES DURING EXERCISE

Maryam Soyouf Jahromi; Mostafa Rahimi; Abbas Ali Gaeini; Sirous Choobineh

Abstract

The purpose of this study was to determine the effect of melatonin ingestion on cardiopulmonary indexes during rest; exercise and recovery period in female athletes. Heart rate (HR); blood pressure (BP) and maximal oxygen consumption (VO₂ max) measured before and after ingestion of melatonin during exercise. Ten female basketball players whom were playing in Shiraz basketball league; selected for this study based on regularity of their menstrual cycle in last 3 month.

They performed the protocol at luteinizing phase of their menstrual cycles in two separate days with 72 hours interval at 11:30 min in the morning. HR; BP; VO₂ max measured at the first day. To assess their VO₂ max and study mentioned factors during exercise they performed Bruce treadmill protocol to exhaustion and all above factors measured during exercise either. HR; BP. At the second stage; 72 hrs after they ingest 10 mg melatonin and HR; BP; VO₂ max measured 30 minutes after ingesting supplement. The same procedure followed for exercise and recovery stages. Paired-samples T test used for data analysis ($\alpha=0.05$). HR decreased significantly after ingesting melatonin during exercise ($p=0.0001$). Ingesting melatonin did not affect resting BP but it significantly decreased BP during exercise and recovery. Furthermore; ingesting 10 mg of melatonin before exercise led to significant increase of subjects VO₂ max ($p=0.0001$).

The finding of this study shows that ingesting melatonin decreases HR; BP; and BT during rest; exercise and recovery moreover it increases VO₂ max. In other term; it increases endurance performance especially in warm environments.

Key words: Melatonin; *Exercise Performance; Cardiorespiratory Indexes; Chronotype*

THE EFFECT OF 8- WEEK AEROBIC EXERCISE ON BLOOD GLUCOSE AND BODY MASS IN FEMALE DIABETES II PATIENTS

Fatemeh Rashidi; Fahimeh Esfarjani; Seyed Mohammad Marandi

Isfahan University

Abstract

This study aims at finding the effect of 8-week aerobic exercise on blood glucose and body mass in female diabetes II patients. Thirty Five women with type II diabetes were purposefully selected and divided to a control group (n=17) and an exercise group (n=18). The training program which continued three times a week for eight weeks included 60-minute aerobic exercises with the intensity of 65 to 70 percent of maximal heart rate. The results of the data analysis indicated that there is significant difference between exercise and control groups regarding blood sugar; fat percentage and WHR. Also; the comparison of the pre-and post- test of the exercise group showed significant difference in blood glucose; fat percentage and WHR. Therefore; it seems that physical activity can be an important factor in reducing blood glucose and some factors of body mass.

Key words: *Aerobic Exercise; Blood Glucose; Body Mass; Type II Diabetes*

PHYSICAL FITNESS AND EXERCISE PHYSIOLOGY KNOWLEDGE IN SEDENTARY MALES AFTER A CONDITIONING PROGRAM

Javad Mehrabani; Farhad Rahmani nia

Guilan University

Abstract

The purpose of the present study was to investigate the effects of a sport for all program on physical fitness components and exercise physiology knowledge in sedentary males. For this aim; Sixty-nine male exercisers; aged 21.37 ± 1.76 years; and 69 male controls; aged 20.89 ± 1.21 volunteered to take part. The method of the study was explained to the subjects; and they filled up the consent form. The experimental group participated in the sport for all program 3 d; pdwk-1 for 8 weeks and received exercise physiology theory coupled with active aerobic; endurance; flexibility exercises and self-direct physical activity. The control group did not perform any specific type of exercises. Physical fitness was measured at per-post tests and physiology knowledge only at posttest accordingly: 1: Maximum aerobic capacity (Vo_{2max}) by using 1-mile running test; 2: Muscle endurance by using sit-up and push-up tests (1min); 3: Flexibility by using sit and reach test; and 4: Exercise physiology knowledge by a self-design questionnaire. At the end; t-test was used to compare the groups in posttest; and compare the pre-post tests in groups respectively. The result of this study revealed that there is significant increase in Vo_{2max} ; sit-ups; push-ups; flexibility; and exercise physiology knowledge ($P \leq 0.05$) in experimental group than the control group. Body fat percent was not changed significantly in the experimental than the control group ($P \leq 0.05$). Findings indicated that the sport for all program might result significant improvements in physical fitness components and exercise physiology knowledge in sedentary males.

Keywords: *Physical Fitness; Body Fat; Sport Physiology Knowledge*

THE EFFECT OF LISTENING TO MUSIC ON HEART RATE; BLOOD PRESSURE; PRE AND TIME OF FATIGUE

Mohammad Reza Ramezn pour; Amir Moghadam; Elaheh Shadi far

Islamic Azad University; Mashhad Branch

Abstract

To compare the effect of three types of music during activity on heart rate; blood pressure; PRE and time of fatigue occurred in students of University. Methods: 15 female students of physical education with a mean age of $21/93 \pm 2/43$ years; height $161/8 \pm 5/22$ cm and weight $54/46 \pm 7/27$ kg among the 45 student volunteers randomly selected intensity 80 to 85 percent of maximum heart rate to exhaustion on stationary bicycle pedal border went. As follows in four different days (a week interval); no music; stimulating music; relaxation music and favorite music of the day; the exercise protocol was performed. Once every three minutes; the pressure of understanding the subjects were recorded. Stall at the moment of perception of pressure; heart rate; blood pressure; fatigue and time were recorded. Statistical methods: For the analysis of data from analysis of variance (ANOVA) and post hoc tests to compare them (LSD) was used ($p < 0.05$). Results: listening to music while driving on the activity; heart rate and perceived time pressure has a significant effect of fatigue. Sedative activity when listening music on heart rate and systolic blood pressure effect is significant. Favorite music while listening activity on heart rate; systolic blood pressure; rate of perceived time pressure and fatigue has a significant effect.

Key words: *Music; Heart Rate; Blood Pressure; Perceived Rate Exertion; Time of Fatigue Occurred*

COMPARISON OF THE EFFECTS OF TWO DIFFERENT METHODS OF CONCURRENT TRAINING (CONTINUOUS & DISTINCT) ON BODY COMPOSITION; AEROBIC POWER AND MUSCLE ENDURANCE IN NON-ATHLETE MALE STUDENTS

Mahdi Ghahremani Moghadam; Hamid Arazi; Ali Samadi

Abstract

The purpose of this study was to compare the effect of two different methods of concurrent training (continuous & distinct) on body composition; aerobic power and muscle endurance in non-athlete male students. For this reason; 42 non-athlete students (age; 22.02 ± 1.91 yrs; height; 175.83 ± 5.88 cm; weight; 69.01 ± 8.27 kg; BF; $13.71 \pm 3.33\%$) volunteered to participate in this study. Subjects were randomly assigned to 3 groups: Distinct Resistance-Endurance (DRE) (n=14); Continuous Resistance-Endurance (CRE) (n=14); and Control (C) (n=14). Subjects performed 2 sessions per week for 12 weeks. Strength training includes Bench press; Lat pull down and cable triceps for upper body; squat; leg press and calf raise for lower body muscles that performed with 2-3 min rest interval between sets and exercises. These exercises start with 2 sets; 10 repetitions and 60% 1RM in begin of program and reached to 3 sets; 4 repetitions and 90% 1RM in last week. Aerobic training involved 20 min interval running by 70% maximal heart rate in start and raised to 45 min running by 95% HRmax in last week. DRE group performed aerobic training in one session and resistance training in other session in each week. In contrast; CRE group performed both aerobic and resistance training in each session together. Control group performed no regular exercise during this period. The findings showed BF% reduced significantly in both experimental groups compare to C group ($p < 0.05$). Pull-up and sit-up records of DRE and CRE groups in post-test was higher than pre-test; but this improvement was significantly smaller in DRE group in sit-up test ($p < 0.05$). VO₂max increased significantly after training in both experimental groups than control but in DRE group it improved significantly higher than CRE group (10.88 vs 9.07 ml·kg⁻¹·min⁻¹; $p < 0.05$). In general; it can be suggested that for improving aerobic power; the aerobic training must performed alone not in concurrent form. But; concurrent training may be more useful for body composition and muscular endurance than resistance or endurance training alone.

Key words: *Resistance Training; Endurance Training; Concurrent Training; Body Mass; VO₂max*

THE EFFECT OF 8 WEEKS OF HIGH AND LOW INTENSITY RESISTANCE TRAINING OF THE SAME VOLUME ON FAT FREE MASS; FAT PERCENT; BODY MASS INDEX (BMI); AND FAT DISTRIBUTION OF YOUNG UNTRAINED MEN

Hamed Safaeian Boldaji; Hamid Mohebi; Farhad Rahmani nia

Guilan University

Abstract

The purpose of this study was to compare the effect of 8 weeks of high and low intensity resistance training of the same volume on fat free mass; fat percent; Body Mass Index(BMI); and fat distribution of young untrained men. For this purpose; 24 young untrained men age 21.79 ± 2.78 years old; height 174 ± 0.73 cm; and weight 69.79 ± 9.9 kg; mean \pm SD participated in this study as subjects. After the initial measuring; the subjects were divided in 3 groups of high intensity (85% of 1RM)(n=8); low intensity(45% of 1RM)(n=8) and control group(n=8) and trained for 8 weeks. The results of this study show that after 8 weeks of resistance training; lean body mass increased and body fat percent decreased in both training groups significantly) $P \leq 0.05$ (which in both cases the difference between the training groups was not significant. The abdominal to thigh subcutaneous fat ratio and BMI did not changed significantly in both intensities. According to the findings of this study it can be concluded that if the volume of high and low intensity resistance training be the same; then the effects on fat free mass; fat percent; Body Mass Index; and subcutaneous fat distribution will be probably the same.

Key words: *Fat Free Mass; Body Mass Index; Subcutaneous Fat Distribution*

THE RELATIONSHIP BETWEEN BODY MASS INDEX AND PHYSICAL FITNESS IN 500 MEDICAL AND NURSE STUDENTS

Salman Faralipour; Asghar Tofighi; Shiva Asghari rad; Reza Talaei

Urmia University

Abstract

This study examines the relationship between the body mass index (BMI) of an unselected group of first-year medical students and their personal physical fitness.

In this cross-sectional study; 500 first-year medical and Nears students were evaluated. Fitness was evaluated by the Eurofit test; which included body composition; cardiovascular endurance; flexibility; muscular endurance; muscular strength; power; balance and agility. The software SPSS (version 13) and Pearson's correlation was used for statistical analysis.

Overweight and obesity in males was higher than in females. The total physical fitness score in female students was better than that of male students. We found a negative correlation between physical fitness and weight; BMI; body fat and wrist to hip ratio in both genders. In addition; a positive correlation exists between hip circumference and physical fitness in both groups.

This study suggests that academically competitive premedical students may not be involved in physical activity. Medical students should be encouraged to maintain a good BMI and perform physical exercise.

Key words: *Physical Activity; Physical Fitness; BMI; Obesity; Medical Students*

A COMPARISON OF REVERSE LINEAR AND DAILY UNDULATING PERIODIZED RESISTANCE PROGRAMS WITH EQUATED VOLUME AND INTENSITY ON ENDURANCE OF UNTRAINED MEN

Hoein Azimi; Mohammad Reza Hamedinia; Amir Hosein Haghghi

Abstract

Purpose: The purpose of this study was to compare the effects of two resistance programs of daily undulating periodization and reverse linear periodization with the equal volume and intensity on endurance indexes. **Methodology:** Thirty untrained; male volunteers 25.38 ± 3.4 years old and 176.23 ± 6.4 cm high were assigned to one of the two groups (under either the reverse linear or daily undulating periodized resistance programs). The reverse linear and daily undulating periodized resistance programs included 12 weeks of training; three sessions per week. **Results:** The data analysis indicated that body composition; the muscular endurance of the upper and lower body and cardiovascular endurance in both periodization programs increased significantly. Generally there are no significant differences between the two training programs. The only difference between the two programs is the significant increase in the muscular endurance of the lower part of the body in the daily undulating periodized program than the reverse linear periodization program.

Conclusion: In general daily undulating periodization creates higher adaptation in the muscular endurance of the lower body than the reverse linear periodization.

Key words: *Endurance; Periodization Program; Resistance Program; Reverse Linear; Daily Undulating*

EFFECT OF COMBINATION OF PARALLEL ENDURANCE AND STRENGTH TRAINING ON AEROBIC AND ANAEROBIC POWER AND MAXIMAL STRENGTH OF TRAINED ADOLESCENT MALE TAEKWONDO PLAYERS

Ali Akbar Sadeghi¹; Nabi Shamsaei²

1. Ilam Payame-e-noor University; 2. Ilam University

Abstract

The aim of this research is the study effect of combination of parallel endurance and strength training on aerobic and anaerobic power and maximal strength of trained adolescent male taekwondo players. Methodology: To achieve to aim of study; 50 taekwondo players were considered as subjects. Then they distribute to 5 groups (strength; endurance; strength-endurance; endurance-strength and control). Then take a primary test and all groups pay to their training programs for 8 weeks. In end of training a take final test. For analyze gathering data was used from SPSS software. Results: Results demonstrate there is meaningful difference in aerobic power; maximum anaerobic; relative maximal strength of lower and upper extremities of players after 8 weeks training. Conclusion: Implementation of combined endurance and strength exercises that recently considered to title of a new training method integrate attention of many of sport researchers has high efficiency and considered to effective training method in improve and develop aerobic and anaerobic power and maximal strength.

Keywords: *Parallel Training; Aerobic Power; Anaerobic Power; Maximum Strength*

THE EFFECT OF TWO WEIGHT TRAINING PROGRAMS WITH DIFFERENT FATIGUE ON STRENGTH GAINS

Hamid Arazi; Mohsen Ebrahimi

Abstract

The purpose of this study was to investigate the role of fatigue on strength gain in resistance training by comparing high fatiguing and low fatiguing training protocols. Thirty health adults (age 21.26 ± 2.14 yr; height 174 ± 4 cm; weight 71.80 ± 5.83 kg) assigned to either a high fatigue (HF: four sets of 10 repetitions with 30 seconds rest between sets); low fatigue (LF: 40 repetitions with 30 seconds between each repetition) or control (C: without training) groups randomly. Subjects in the two training groups undertook bench press training with three times a week on average 75% of their 1 repetition maximum (1RM); for 10 week. Results indicated that bench press training causes a significant increase in pectoral muscle strength in Both HF and LF groups comparing with C group ($p \leq 0.01$). But; Both HF and LF resulted in similar strength gains in 1-repetition maximum bench press. It seems that fatigue in each set does not appear to be critical stimuli for strength gain in weight training and we can reach to same results without severe discomfort and acute physical effort.

Key words: *Strength Training; Fatigue; Bench Press; Muscle Strength*

THE COMPARISON OF THREE RECOVERY METHODS (PASSIVE; ACTIVE AND SPORT MASSAGE) ON 800 AND 1500 METER RECORDS IN ATHLETE MALE STUDENTS

Ehasn Asghari; Hamid Arazi

Abstract

The purpose of this study was to compare of three recovery methods (passive; active and sport massage) on 800 and 1500 meter records in athlete males. 20 healthy male athletes aged 19 to 25 years old took part in this study voluntarily. Between bouts 800 and 1500 meter running; passive recovery during first and fourth sessions; active recovery in second and fifth sessions and sports massage (quadriceps; hamstring; gluteus and gastrocnemius muscles) recovery during third and sixth sessions were used. For statistical analysis of data; two-way repeated measures and LSD post hoc tests were used. Data analyses showed that sports massage; active and passive recovery have significant effect on increasing 800 and 1500 meter running records ($p < 0/05$). Also; there was significant difference between received records of passive and sports massage recoveries and active and passive recovery too ($p < 0/05$). It seems that subjects records in 800 and 1500 meter running after applying massage; active and passive recovery has been better; respectively ($p < 0/05$).

Key words: *Recovery; 800 Meter Running; 1500 Meter Running; Static Stretching*

THE EFFECT OF TRAINING AND DETRAINING ON SOME ANTHROPOMETRICAL FACTORS OF NON-ATHLETES' FEMALES

Hamid Mohebi; Farhad RahmaiNia; Morvarid Hashemi Saboor; Mohammad Reza Fadaei Chafi

Guilan University

Abstract

The aim of this study was to determine the effect 6 weeks training and 6 weeks detraining on anthropometrical factors in non-athletes females' students in Guilan university. Thirty five subject were divided into three overweight($n=10; 25 < \text{BMI} < 33$); optimal weight($n=12; 18 < \text{BMI} < 24$) and control($n=13; 18 < \text{BMI} < 30$) groups. subjects' training in experimental group was 3 days per week: Each session of training consist of 10min warm up; 20min cycling on cycle ergometer with 60-70% HRRmax and 10min cool down. Than subjects detrained for 6 weeks. The result of this study showed that after 6 weeks aerobic training , there was a significant weight decrease in optimal weight group , also in overweight group W;BF% , WHR and BMI were reduced significantly($p < 0.05$). After comparing the mean deference changes between groups, it was observed that there was a significant difference between control group and over overweight group in W, BF% and WHR between experimental and control group($p < 0.05$). After detraining there was no significant change in groups. After Comparison the mean deference changes between groups, it was observed that there was not a significant difference between groups in W; BF%, WHR; LBM; and BMI. It can be concluded that the effect of aerobic training on anthropometrical factors in overweight group was clearer than optimal group. Previous research indicated that the main substrate for energy expenditure in over weight's individual in rest is fat oxidation. Because the obsess people have more BF%; so energy expenditure in overweight group is larger than in optimal groups. However the result of this study showed that detraining has same effect in individual with different weight to.

Key words: *Training; Detraining; Anthropometrical Factors; Optimal Weight; Overweight*

THE RELATIONSHIPS BETWEEN AEROBIC POWER; REPEATED SPRINT ABILITY (RSA) AND ANAEROBIC POWER IN MEN AND WOMEN STUDENT OF ATHLETES AND NON-ATHLETE

Hadi Ghaedi¹; Ali khazani²; Rostam Alizadeh³

1. Islamic Azad university Lamerd Branch

2. Tarbiat Modares University

3 .Shahid Beheshti University

Abstract

The purpose of this study was to determine relationship between aerobic power; repeated sprint ability (RSA) and anaerobic power in men and women student of athletes and non-athlete.

120 students (60 females and 60 males) participated in this study (age: 23.42 ± 4.7 years; body mass: 62.68 ± 3.42 kg; height: 166.6 ± 93.2 cm) and divided to non-athletes and athletic groups. All participants performed 3 tests: an aerobic power test (20-m shuttle run); the new zigzag Anaerobic Test(ZAnT); and RST (RAST).

A significant negative correlation was found between the fastest sprint; total sprint time of RAS with calculated $VO_{2\max}$ in men and women of non-athlete students ($p > 0.05$). Also; a significant correlation was found between the performance decrement (PD) of RAS with calculated $VO_{2\max}$ in men and women of non-athlete students ($p > 0.05$). There was no significant correlation in men and women of athlete students ($p > 0.05$). There was a significant negative correlation between the fastest sprint; total sprint time of RAS with peak and mean anaerobic power of new zigzag test in men and women of athlete students ($p > 0.05$); However; no difference significantly between men and women of non-athlete students ($p > 0.05$).

The aerobic system plays a significant role in the maintenance of intensity and performance levels during interval exercises; which is characterized by short bursts of activities. Therefore differences obtained in this study can be mainly due to differences in fitness levels of subjects that is reflected in their different physiological capacities; that is needed the broader and careful research. Also; the use of interval exercises and repeated sprint activities to improve the aerobic and anaerobic power is recommended.

Key words: *Aerobic Power; RSA; Anaerobic Power; Athletes; non-athlete*

THE RELATIONSHIP BETWEEN THE SELECTED PERCENTAGE OF ONE REPETITION MAXIMUM AND NUMBER OF REPETITIONS IN TRAINED AND UNTRAINED MALES

Abbas Asadi; Hamid Arazi

Guilan University

Abstract

The purpose of this study was to determine the relationship between percentages (75; 85 and 95%) of one repetition maximum (1RM) and number of repetitions during back squat; bench press; and arm curl; especially using free weight in trained and untrained males. Nine trained (T) and 9 untrained (UT) males participated in this study. Subjects performed one set to failure at 75; 85; and 95% of 1RM; after determined the 1RM. Data were analyzed using two- way analysis of variance with repeated measures. There was significant difference ($p < 0.05$) between T and UT at 85% of 1RM at arm curl. Both groups performed significantly ($p < 0.05$) more repetitions during 75% of 1RM than 85 and 95% of 1RM ($75 > 85 > 95\%$). The rating of perceived exertion (RPE) was greater ($p < 0.05$) for high intensity than moderate intensity. In conclusion; the number of repetitions is dependent to amount of muscle mass and exercise intensity.

Key words: *Weight Training; One Repetition Maximum; Free Weight*

CONCURRENT PLYOMETRIC AND ENDURANCE TRAINING IMPROVED SOCCER PERFORMANCE

Mahmoud Nik Seresht¹; Hamid Agha Alinejad; Abdolhosein Taheri Kalani²

1. Islamic Azad University Central Tehran Branch

2. Islamic Azad University Ilam Branch

Abstract

Soccer performance depends upon a myriad of factors such as technical; tactical; mental and physiological areas. Soccer training should be performed based on the game itself; and so in this study was to investigate the effects of concurrent plyometric and endurance training on the physiological areas and soccer skills in male soccer players. 29 male soccer players; age of $25/42 \pm 4/72$ yr; height of $177/6 \pm 7/10$ cm; and body mass of $73/20 \pm 6/59$ kg randomly assigned to the training groups of endurance (n=10); plyometric (n=10) and concurrent (n=9) participated in this study. The endurance training consisted of 4×4 min interval running at 90-95% of maximal heart rate; with a 3 min jogging in between. The plyometric training consisted of 9 explosive jumping and throwing exercises in 3 sets with 10 repetitions which subjects have done with low to maximal intensity. The concurrent training consisted of both plyometric and endurance training at one session that plyometric training performed first. All of the groups performed training program for 8 weeks and 3 times a week. The subjects performed Hoff- Helgerud football endurance; RAST; Vertical jump; Illinois; 30m sprint; body fat percentage and Mor-Cherestian (for soccer skills) tests before and after training period. The analysis of data before and after training programs using T-test; ANOVA and LSD tests showed that in all of the groups VO_2 max increased significantly; but concurrent training was more than other training groups. In concurrent and plyometric training; anaerobic power; agility and 30m sprint increased significantly. No changes were found in this variable in endurance training. Also; no changes were found in dribbling and shooting skills in all of the groups after the training programs ($p < 0/05$). In this study utilizing concurrent training not only had no negative influence on soccer skills and physiological areas; but this can also with enhanced VO_2 max improved soccer performance by increasing the distance covered; enhancing work intensity; and increasing the number of sprints and involvements with the ball during a match.

Key words: *Concurrent Training; Performance; Soccer Skills; VO_2 max*

EFFECTS OF TIME OF DAY ON SOME OF THE PHYSIOLOGICAL AND PHYSICAL FITNESS FACTORS IN FEMALE ATHLETIC AND NONATHLETIC

Vahid Sari Sarraf; Saeid Dabagh Nikoo kheslat; Ramin Amir Sasan; Sayedeh Farideh Araghi

Tabriz University

Abstract

The purpose of this study was to investigate effects of time of day on physiological and physical fitness factors in athletes and nonathletes. For consideration effect time of day ; tests to be performed in crossing way at three times 7.00 - 9.00; 13.00 - 15.00 and 18.00 - 20.00 . finding: A significant diurnal variation was found for balance ; trunk strength ;power food ; body tempreture and systolic and diastolic pressure. There was a significant different among responses of athletes and nonathletes to the effect of time of day on physical fitness factors just for trunk strength. Hawever ; A significantmain matual effect of time of day and phases of menstruation cycle was observed for trunk strength. Conclusion: Other than the need to mor researchs ; result of this research showed that physiological and physical fitness factors ; a except balance has shown significant increase at afternoon.

Key words: *Time of Day; Physiological and Physical Ritness Factors; Femal*

COMPARISON OF ANTHROPOMETRIC AND PHYSICAL FITNESS TRAITS BETWEEN ELITE GRECO-ROMAN AND FREESTYLE WRESTLERS

Navid Lotfi; Bahman Mirzaei

Guilan University

Abstract

The purpose of this study was to investigate the anthropometric and physical fitness differences between elite Greco-Roman and freestyle wrestlers. Subjects: Thirty three Iranian elite wrestlers [(Freestyle; age: 24.54 ± 3.43 years; N=13) and (Greco-Roman; age: 23.05 ± 1.95 years; N=20)] who were invited to the national training camps participated in this study. Methods: The anthropometric traits included body weight; height; sitting height; arm span; and the physical fitness traits included flexibility; muscular endurance; agility; speed and bilateral visual reaction time. Statistical comparison of the FS and GR groups was carried out using Independent samples t test ($P < 0.05$). Results: No significant difference was found between the two groups. However; in speed; flexibility; pull up tests; Greco-Roman wrestlers were better than freestyle wrestlers and in agility; reaction time and bent-knee sit up test the freestyle wrestlers were better than Greco-Roman wrestlers.

Key words: *Anthropometric; Freestyle; Greco-Roman*

EFFECT OF PLYOMETRIC TRAINING AND SUBSEQUENT DETRAINING ON CHANGES IN FORCE-VELOCITY RELATIONSHIP

Hosein Rostamkhani; Bahman Mirzaei; Navid Lotfi; Hamdollah Hadi

Abstract

The purpose of this study was to consider the effect of plyometric training and subsequent detraining on changes in force-velocity relationship. Methods: Forty active students with average and standard deviation age of 24 ± 2.3 Year; weight 75 ± 5.6 Kg and height 176 ± 8.3 Cm participated in this study. Subjects divided into control and experimental group. The Biodex and EMG were used to measure muscle contraction velocity and to assess muscle electrical activity. The control group subjects asked to continue their daily activities and experimental group subjects were asked to participate in a 6-week plyometric training program. Data registered in pre-test; post-training and post-detraining. The independent t-test and repeated measures ANOVA and post hoc Tokay was used for data analysis. Results: The results showed significant increase in experimental group subject's EMG in post-training period in all motions and decrease EMG in post-detraining in slow and moderate motions ($p < 0.05$). The control group subject's EMG not changed in all motions for all periods. Conclusions: it seems reduction of EMG activity of muscles was due to insufficient intensity of applied movements because applying high intensity movements caused maintenance of physiological adaptation of training.

Key words: *Plyometric Training; Detraining; Force-Velocity Relationship*

SURVEY THE EFFECT SEQUENCES ORDER OF COMBINED TRAINING ON MAXIMAL STRENGTH AND AEROBIC CAPACITY AFTER 8 WEEKS DETRAINING

Aidin Vakizadeh; Hamid Reza Azmoon; Lotfali Bolboli

Mohaghegh Ardebili University

Abstract

The purpose of this study was to investigate effect sequences order of combined training on maximal strength and aerobic capacity after 8 weeks detraining. Methods: Twenty eight physically active male university students were randomly assigned to participate in one of following training group: group C (n=8) served as a control; ES (n=10) and SE (n=10) combined the two programmers in different order during the same training session. The training groups performed concurrent training program with different sequence for 8 weeks (3 days per week). The subjects thoroughly stopped their training for a 8 weeks period; then training period finished; and in this time only fulfillment daily works. The following measurements were made on all subjects before and after 8 weeks of training and after 8 weeks detraining: weight; height; percent body fat; VO₂max (ml/kg/min); and one repetition maximum (1RM) leg press (LP); 1RM bench press (BP).Results showed significantly reduce in VO₂max and 1RM in movement bench press and leg press in the ES and SE groups after 8 weeks detraining ($P \leq 0/05$).No significant difference was observed in decrease maximal strength and VO₂max between groups ES and SE after 8 weeks detraining.

Key words: *Concurrent Training; Detraining; Aerobic Capacity; Maximal Strength*

THE EFFECT OF THE ONE SESSION SHORT-TIME INTENSIVE PHYSICAL ACTIVITY ON THE CPK; LDH ENZYME IN THE ATHLETE AND NON-ATHLETE FEMALE

Sedighe Sadat Hojati; Parvaneh Nazarali

Alzahra University

Abstract

The purpose of this study was to investigate the effect of one session short-time intensive physical activity on the some parameters of clotting system and CPK; LDH enzyme in the athlete and non-athlete female. This research was performed through Quasi-experimental method. Statistical sample included athlete and 10 non-athlete female students from ALzahra University who were selected randomly. Physical activity consisted of performance of the anaerobic RAST test with maximal effort or 85%-95% subjects heart rate reserved. At the end data was analyzed through mixed factorial and multivariate test. The finding of the study showed: A significant increase ($p < 0.05$) in ceratin phosphokinaz and lactate dehydrogenize after exercise in the both of group was seen. there was no significant difference between athlete and non-athlete subjects; although increase in the lactate dehydrogenize was higher in the non-athlete than athlete subjects and increase in the ceratin phosphokinaz was higher in the athlete than non-athlete subjects and a significant increase ($p < 0.05$) in platelet; fibrinogen; calcium and no significant increase in MPV; protrombin time; tromboplastin time after exercise in the both of group was seen.. Lastly since increase in most of these variables is considered cardiovascular risk factor; this increment can be a threat for people involved in vigorous activities and especially for in-athlete individuals who have shown more increase in these variables.

Key words: *CPK; LDH enzyme; Clotting; RAST Test; Athlete; non-athlete*

THE EFFECTS OF PLYOMETRIC TRAININGS ON VELOCITY; AGILITY; FLEXIBILITY AND EXPLOSIVE STRENGTH IN TAEKWONDO PLAYERS

Mohammad Reza Ramezan pour; Amir Moghadam; Mahdi Alizadeh

Abstract

The purpose of this study was to investigate the effects of plyometric trainings on velocity; agility and flexibility and legs explosive strength in taekwondo players. The subjects of this study were 20 taekwondo players in Mashhad (18-23 years) who participated voluntarily in this study. Before doing of plyometric exercises; for each dependent variable; a pretest was taken from the participants. Then; the subjects were divided randomly into two experimental and controlled groups. The experimental group were performed selected plyometric exercises for a period of 18 session. Controlled group merely performed general taekwondo exercises. After doing of selected plyometric exercises; post tests were taken from both groups of study; again. Descriptive statistics was used to measure the averages and the standard deviation; kolmogorov-smirnov test for normality. In inferential statistics; t-test was used to compare averages of two groups in $P \leq 0/05$ level; and Pearson coefficient of correlation was used to evaluate the relations among variables. Results: The results of the study indicated that plyometric exercises had significant effects on variables; velocity; agility; flexibility and legs explosive strength in taekwondo players. Conclusions: Studying the results of this study indicates that factors such as neuro-muscular coordination; electro-reflexive activity improvement; enhancement of speed contraction and application of motor neurons; probably had influences in improvement of velocity; agility; flexibility and legs explosive strength in taekwondo players.

Key words: *Plyometric Exercises; Velocity; Agility; Flexibility; Legs Explosive Strength; Taekwondo Playe*

THE EFFECT OF TWO SHORT TIME EXERCISE PROGRAM BY WEIGHT AND PLYOMETRIC TRAINING ON VERTICAL JUMP AMOUNT OF ARAK VOLLEYBALL SCHOOL

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1. *University of Boroujerd*

2. *Arak University*

Abstract

Purpose of this study is effect of two short time exercise program by weight and plyometric training on vertical jump amount of Arak volleyball school. Due to this purpose 21 player; from Arak volleyball school have been selected; and divided in three group: experimental weight training group; with average (height 191.2 cm . weigh 73kg ; age 17.14) and control group with average (Height ; 190 cm . weight 70 kg ; age 17) and control group with average (Height 187 cm . weight 68 ege ; age 16.7) randomly. Variables of this study have two short time program . one of them was weight training and other one was plyometric ; with each of them performed in four in four week ; and at each week three time . Results analysis at this survey by using of “T” test ANOVA. And scheffe test at level of ($P < 0.05$) is performed . Result showed that; (9%) ; in contrast with ; per test has increased . Form aspect of statistical “($p < 0.05$)” has been meaningful ; and amount of jump post rest contrast with per test in control group has not meaningful change. Also compare of per test and post test average ; between experimental groups has not shown any meaningful difference . However in aspect of descriptive consequence of plyometric exercise was more than consequence of weigh training exercise (9%) in contrast with (7.67%) (but ; statistically this difference was not meaning full . Then gain to this result that four week exercise; with plyometric and weight training.

Key words: *Weight & Plyometric Training; Vertical Jump; Arak*

THE RELATIONSHIP BETWEEN BMI; FAT PERCENTAGE AND LEAN BODY MASS WITH AEROBIC AND ANAEROBIC POWER OF FEMALE'S NATIONAL JUDO TEAM

Maryam Gholami¹; Parvaneh Nazarali¹; Leila Baghersad Renani²; Soraya Asgarpour¹

1. Alzahra University

2. Tarbiat Modares University

Abstract

The aim of this study was to determine the correlation between BMI; body fat percentage (BFP) and lean body mass (LBM) with aerobic and anaerobic power of female's national judo team. Method: BMI; BFP; LBM and aerobic and anaerobic power were measured in 7 FNJT. Hypothesis was examined by determination of Pearson's correlation coefficients at $P \leq 0.05$. Results: The results showed that there was a significant and negative correlation between BFP; LBM and BMI with aerobic power; and between BFP with absolute average anaerobic power. But there was no significant relationship between LBM and BMI with absolute average anaerobic power. There was a negative correlation between LBM and relative average anaerobic power. Conclusion: Therefore; higher muscle mass and lower fat mass positively affected physiological capacities of female are national judo team.

Key words: *BMI; Fat Percentage; Lean Body Mass; Aerobic & Anaerobic Power; Judoka*

EFFECT OF ANABOLIC STEROIDS CONSUMPTION ON C - REACTIVE PROTEIN (CRP) IN BODYBUILDERS

Hamid Arazi; Mohesen Ebrahimi; Kako Hoseini

Abstract

The purpose of this study was to evaluate the effect of anabolic steroids consumption on C-reactive protein (CRP) in bodybuilders. Sixty healthy men in three groups include First group (FG) were bodybuilders which had consumed anabolic steroids (n=20); second group (SG) was bodybuilders which hadn't consumed anabolic steroids (n=20) and third group (TG) were untrained subjects as control (n=20) participate in the study. CRP concentration; Strength and volume of the forearm; pectoral major and femur muscles were measured. Strength and CRP were greater in FG compared to other groups ($P<0/05$). But differences between SG and TG were not significant. Forearm and femur circumference were grater in FG than other groups. Furthermore; this was grater in SG than TG. However; chest circumference was grater in FG and SG than TG only. There were no significant differences in speed between groups. Anabolic steroid consumption for muscle strength and volume improvement in bodybuilders accompany with higher level of CRP (as a cardiovascular risk factor).

Key words: *Resistance Training; C - reactive protein; Anabolic Steroids*

EFFECT OF ACUTE COENZYME Q10 SUPPLEMENTATION ON SERUM LEVELS OF TNF DURING MAXIMAL EXERCISE

Mohammad Mosaferi; Khosro Ebrahim; Davar Amani; Zahra Arab Narmi

Abstract

The aim of this study was to investigate acute consumption of Coenzyme Q10 supplementation serum concentrations of Tumor necrosis factor-alpha (TNF- α) during the maximal activity. Twelve healthy active males (age $21/75 \pm 0/64$ yr; BMI $23/7 \pm 0/94$ kg/m²) performed 30-min exercise at 80% to 85% HRmax. Subjects 120 minutes pre-exercise received either of the following regimens: Coenzyme Q10 (2 mg per kg body weight) or placebo. Blood samples were obtained prior to supplement consumption and immediately after exercise then groups were reversed after 4 days. The data were analyzed using paired and independent t-test. The statistical significance was set at $p < 0.05$. The results of this study showed that although increased serum levels of TNF- α was slower in the supplement group compared with the placebo group after maximal activity but Q10 consumption did not caused a significant decrease between two group ($P=0/8$).

Key words: *TNF; Q10; Maximal Exercise*

EFFECT OF A LONG PRIOR AEROBIC EXERCISE AND HIGH FAT MEAL ON INFLAMMATORY MARKER OF CELL ADHESION MOLECULES IN MALES

Ali Barabadi¹; Ali Asghar Ravasi¹; Sirous Choobineh¹; Hasan Barabadi²

1. *Tehran University*

2. *Tarbiat Moalem University*

Abstract

The purpose of the present study was to examine the effect of an acute bout of postprandial prior exercise with 70 percent VO₂max on markers of inflammation (sVCAM-1) following a high fat meal in non-athlete men.

Methods: we assigned 20 non-athlete students in a random fashion and based on their body fat to 2 groups of 10 people; one experimental (averaging 21.98±1.30 years; 18.04±2.48 body weight percent) and control (averaging 22.06 ±1.22 years; 18.15±3.54 body weight percentage) groups. The experimental group completed a 90-minute treadmill exercise. A day later both groups received high fat meal. Blood samples in 30 min before and 30 min; 1; 3 and 24 hours following meal were collected. To determine normality of groups; we carried out one sample Kolmogorov smirnov (PCON= 0.996) (PEX=0.999) and to determine the homogeneity of variances we used Leven test and to examine results among and inter- groups independent t-test and statistical test for variance analysis with repeated measures and post-hoc LSD test.

Results: our results indicated that one bout of acute prior aerobic exercise reduces sVCAM-1 (P=0.029). Also in 30min and 24 hours following high fat meal there is a reduction of sVCAM-1.

Conclusion: high fat meal increases sVCAM-1; thus leading to inflammation and diseases. Exercise may be able to reduce sVCAM-1 and hence reducing the risk of cardiovascular diseases.

Key words: *Endothelial Activation; Postprandial Lipemia; Adhesion Molecules; Atherosclerosis*

THE EFFECTS OF ACUTE L-CARNITINE SUPPLEMENTATION ON LACTATE CONCENTRATION IN DIFFERENT TIME COURSES DURING RECOVERY

Mojtaba Kaviani; Masoud Moeini Sahbestari

Abstract

The purpose of this study was to examine the effects of LC administration on lactate accumulation in different time courses during recovery from incremental exercise in active male subjects. Methodology: The subjects were 12 randomly selected active male physical education students; 21.75 ± 0.64 years old; with a mean body mass index (BMI) of 23.7 ± 0.94 kg/m². They received orally either 2g of L-carnitine or a placebo (6 ml lemon juice dissolved in 200 ml water) 90 minutes before they began exercise on treadmill. They performed a modified protocol of Conconi test to exhaustion. Plasma lactate concentrations were recorded at rest and immediately; 2; 5 and 8 minutes after the test. One-way analysis of variance with repeated measurements and paired t-test were used for data analysis. Results: lactate concentrations in LC group decreased at 0;2;5;8 minutes after exercise by 32; 43; 40 and 37 percent compared placebo group; respectively. Discussion: These findings indicate that acute administration of LC can accelerate recovery from incremental exercise in active males.

Key words: *L-carnitine; Lactate; Recovery*

THE INFLUENCE EIGHT WEEKS CONCURRENT TRAINING ON BLOOD LIPID PROFILE AND BODY MASS IN YOUNG MAN WERESTLERS

Sayed Javad Mirghani; Hamid Agha Alinejad; Mohammad Ali Azarbayjani; Ahmad Mazidi; Sajjad Arshadi

Islamic Azad University; Central Tehran Branch

Abstract

The aim of this study was to examine 8weeks concurrent training on blood lipid profile and body mass in young man werestlers.24 young man werestlers with the average age of 20.625 ± 1.135 yers; height 172.710 ± 5.180 cm; weight 65.442 ± 5.860 kg and BMI 22.928 ± 0.281 were selected voluntarily and objectively and divaided randomy into 3groups;endurance;strength and concurrent training(n=8).strength training (6 movments)and endurance training with the use of treadmill and concurrent training (the combination of both strength and endurance groups)were performed 3 times aweek over period of 8 weeks.5cc blood was collected during 3 sets of measurement ;befor training;at the end of 4th and 8th week at 8:00 eclock;and a significant level was considered ($p \leq 0/05$).reasearch findings showed %33.544 reduction of HDL-C in strength group during 3 level of measurements($P=0.035$);while other variables bloods and body mass did not show any significant changes in groups ($P > 0.05$).therefore; concurrent training can prevent the risk of strength training resalting from reduction in blood serum HDL-C in young man wrestlers; which can Causes cardiovascular diseases.

Key words: *Concurrent Training; Blood Lipid Profile; Cardiovascular Diseases; Young Man Wrestlers*

EFFECT OF CIRCULAR RESISTANCE TRAINING ON THE CHANGES TAKING VITAMIN C WITH HOMOCYSTEINE; IL - 6 AND LIPOPROTEIN BLOOD OF HEALTHY NON-ATHLETIC MEN

Hasan Naghi zadeh; Fereshteh Katbi; Mahdi Katbi

Abstract

The purpose of this study was to the effect of resistance training in a circle with vitamin C on changes in homocysteine; IL- 6 and blood lipoproteins of healthy non-athletes men. Methodology: 37 untrained healthy men were replaced randomly in two experimental groups and one control. In all the subjects were bled in two steps. For analysis of data were used from one-way ANOVA and LSD test. Results: Group Practice - Supplement significant decrease in Hcy and BMI; nonsignificant significant reduction in 6IL-and HDL increased significantly in the other two groups were compared ($p < 0.05$). Conclusion: Resistance exercise a circle with supplementation as a method of preventing cardiovascular disease; achieve ideal body composition and fitness in the number of people coming.

Key words: *Resistance Training Circles; Homocysteine; IL-6; Lipoprotein*

EFFECT OF MODERATE AND INTENSITY AEROBIC EXERCISE ON SERUM LEPTIN LEVELS IN OBESE/OVERWEIGHT WOMEN

Neda Ghadiri; Mohammad Marandi; Fahimeh Esfarjani; Hosein Mojtahedi

Abstract

The purpose of this study is to determine the effect of moderate and intensity aerobic exercise on serum leptin levels in obese/overweight women.

Methods: The study group which include forty five obese/overweight women were selected from patients of Iranian Health Clinic in Isfahan city that were qualified ($BMI \geq 25-30 \text{ kg/m}^2$) to participate at this design. Serum leptin levels of patients were evaluated before eating the breakfast and fat percent were measured by lunch caliper. Participants were randomized categorized in three group: 1) Moderate aerobic exercise (45-50% HRRMAX); 2) Intensity aerobic exercise (70-75% HRRMAX); 3) Control group (without training). Training is 10 weeks; (with three sessions in every week); the time devoted for every session was 60 minutes. The training protocol is aerobic exercise which is made by the researcher. After 10 weeks assessment was down for second time. Pre and post test data was analyzed by ANOVA and shefe.

Results show that moderate and intensity aerobic exercise has a significant effect on body weight ($p < 0/000$); fat percent ($p < 0/03$); BMI ($P < 0/001$) and Serum leptin levels ($p < 0/000$).

This research suggests that intensity aerobic exercise has a comparatively more effective effect than moderate aerobic exercise on serum leptin levels. We can arrived to this fact by comparing the obtained data of two mentioned groups with control group. In finally we can result that maybe intensity aerobic exercise training is effective than moderate aerobic exercise training in body weight regulation and serum leptin levels.

Key words: *Leptin; Fat Percent; Aerobic Training; Obese/overweight Women*

THE EFFECT OF OMEGA-3 SUPPLEMENT DURING A PERIOD OF INTENSIFIED TRAINING ON THE INFLAMMATORY CYTOKINE RESPONSE TNFA IN THE ELITE PADDLER MEN

Maryam Delfan¹; Hamid Agh Alinejad²; Khosro Ebrahim¹; Fatemeh Baesi³; Zahra Mirakhori³; Farhad Jadidi⁴; Gahsem Ghalam farsa⁴

1. *Shahid Beheshti University*

2. *Islamic Azad University Central Tehran Branch*

3. *Tarbiat Modares University*

4. [Tehran University of Medical Sciences](#)

Abstract

We assess the effect of omega-3 supplement during a period of intensified training on the inflammatory cytokine response TNF α in the elite paddler men. Materials and Methods: 16 healthy; elite paddler male from the Iranian national Dragon boat team were randomly selected to receive the placebo (mineral oil; n=6) or supplementation (n =10) with omega-3 in capsules of 3.6 gr daily; (2400 mg of eicosapentaenoic acid and 1200 mg of docohexaenoic acid per day) for 10 days. before and after 48 h supplementation period blood samples (10 ml) were collected then separated the immune cells and cytokines production were measured. Results: Supplement significantly decreased the resting levels of TNF α In the supplemented group; while values in the placebo group increased(P<0.05). Conclusion: Consumption of omega-3 supplement can reduce inflammation during intensified training.

Key words: *Omega-3; TNF α ; Intensified Training; Elite Paddler Male*

THE EFFECT OF 8 WEEK WALKING PROGRAM ON SERUM LIPIDS AND ESTROGEN HORMONE CONCENTRATION IN NON_ATHLETE MENOPAUSE WOMEN

Zeynab Firouzeh; Nahid Bijeh; Saeid Ramezani

Ferdowi University of Mashhad

Abstract

because of physical activity importance in cardiovascular diseases prevention this study intend to investigate the effect of eight week walking program on serum lipids and estrogen hormone concentration in non_athlete iranian menopause women.

Materials and methods: Twenty two women (47-55) were the statistical sample of this study .they were by random divided in to two groups: (including) experimental and control . at first; body mass index(BMI) characteristics; were measured and recorded .then blood sampling was taken. Experimental group were directed to the walking program. then BM I; resting blood sampling and serum lipids and estrogen hormone concentration were measured again.for pre-test and post-test data comparison in inside groups dependent t-test and vilcacson test were applied .

Results : According to these results;there was a significant different between serum lipids and BMI before and after the training in experimental group while non significant different was observed in control group .also there was not a meaningful change in estrogen hormone in groups

Conclusion: Observation; reveals that an 8-week walking program had useful effects on menopausal women' serum lipids concentration and BMI.

Key words: *Serum Lipids; Walking; Menopause Women*

EFFECT OF A12- EEEK SELECTIVE AEROBIC EXERCISE TRIAL IN WATER ON FEMORAL AND LUMBAR SPINE BONE DENSITY IN OBESE POSTMENOPAUSAL WOMEN

Maliheh Movasegh Behestan; Asghar Toufighi; Reza Talaei

Urmia University

Abstract

The purpose of this study was to investigate the effect of a 12 -week selective aerobic exercise trial in water on bone density in obese postmenopausal women. Twenty obese post menopausal women as subject to participate in this study. Subjects randomly divided into a experimental and control group.. Data analyzed with paired and independent samples T -Test.

The results of this study indicate that there was a significant increase in femoral bone density in experimental group compared with control group in end of study period ($P<0.05$). Also; the lumbar spine bone density was increased moderately; but not significantly; in experimental group. On the other hand; calcium and phosphorus levels were not different significantly between experimental group and control group in end of study period ($P<0.05$).

Key words: *Femoral Bone Density; Lumbar Spine Bone Density; 12 -week Selective Aerobic Exercise; Obese Postmenopausal Women*

THE EFFECT OF AEROBIC TRAINING ON HSCRP; TRIGLYCERIDE AND BODY COMPOSITION IN MIDDLE AGED MEN WITH OVERWEIGHT

Mohesen Jafari; Nahid Bijeh; Ahmad Ebrahimi Atri

Ferdowsi University of Mashhad

Abstract

The aim of this study was to investigate the effects of three months regular aerobic exercises on levels of hsCRP; TG; HDL; body composition and aerobic power in middle aged healthy and inactive men. Subjects of this study in experimental group included 11 men and in control group included 10 men. They participated in a course of aerobic exercise with their 75 to 85 maximum heart rate for three months. Their levels of hsCRP; TG and HDL; aerobic power and status of body composition were measured previous and after exercises. Analysis of data showed significant elevation of aerobic power and significant reduction in BMI; hsCRP; TG and TG/HDL but no significant change was observed in percent body fat; visceral fat area and HDL ($P<0.05$). Thus three months aerobic exercises can be effective in reduction of coronary artery disease risk in middle aged healthy and inactive men.

Key words: *Aerobic Training; Triglyceride; Body Composition; Men*

THE EFFECT WHOLE BODY VIBRATION AND CREATINE SUPPLEMENTATION ON LOWER EXTREMITY PERFORMANCE AND BALANCE IN OLDER MEN

Mostafa Rahimi; Mohammad Reza Kordi; Abasali Gaeini; Mostafa Gholi Saberian

Abstract

The purpose of this study was investigating the effect of whole body vibration training (WBVT) and creatine (Cr) supplementation on lower extremity performance and balance in older men. Twenty two healthy older men selected and divided to three groups randomly; WBVT+Cr (n=7); WBVT+P group (n=7); and control group (n=8). The WBVT+Cr and WBVT+P groups performed exercises on the whole body vibration device for 10 days with intensity 30-35 HZ and 5 mm amplitude. The WBVT+Cr group consumed 20g/day creatine supplement for the first 5 days which fallowed by 5g/days for next 5 days of protocol. The control group neither did any exercise and nor consumed any supplement during the protocol. Static balance by standing time on one leg; dynamic balance by TUG test and lower extremity performance by 30 meter walking test; sit and stand test and tandem gait test was measured. Paired sample t test and one way ANOVA used for data analysis ($\alpha=0.05$). Result showed that dynamic balance; lower body performance in 30 meter walking and tandem gait was improved in experimental groups. But there was no significant increase in static balance ($p=0.514$); dynamic balance ($p=0.153$); lower body performance in 30 meter walking test ($p=0.339$); sit and stand test ($p=0.578$) and tandem gait ($p=0.151$) in between groups. Therefore it seems that WBVT plus Cr supplementation in short time has no effect on lower extremity function and balance in older men.

Key words: *Whole Body Vibration; Creatine; Lower Extremity Performance; Balance; Older Men*

THE EFFECTS OF AEROBIC EXERCISE INTENSITY ON BODY COMPOSITION AND LIPID PROFILE CHANGES IN OBESE/OVERWEIGHT WOMEN

Sayed Mohammad Marandi; Fahimeh Esfarjani; Hosein Mojtahedi; Nada Ghadiri Bahram abadi

Isfahan University

Abstract

Purpose- To examine the effects of aerobic exercise intensity on body composition and lipid profile changes in Method- Forty-Five middle-aged; obese/overweight women (age:25-40 years and $BMI \geq 25-30 \text{ kg/m}^2$) completed one-of-three-10 week aerobic exercise interventions: 1) Moderate exercise training (45- 50%HRRmax); 2) intensity aerobic exercise (70-75%HRRmax); 3) no exercise training (control).

Participants exercised 3 days/week-1 for 10 weeks per session 60 minutes. The intensity of aerobic exercise were controlled by lunch caliper and measurements of body composition and serum lipid profile indices in pre and post test.

Results- Moderate and intensity aerobic exercise has a significant changes on weight ($p < 0/000$); fat percent ($p < 0/04$); BMI ($p > 0/001$); fat weight ($p < 0/003$); lean body weight ($p < 0/02$); WHR ($P < 0/000$); HDL ($P < 0/000$) in patients. The differences between groups were specialized by Sheffe test.

Conclusions- The present data indicate that body composition and lipid profile changes are affected by intensity of aerobic exercise training for reducing weight; fat percents; BMI; fat weight; lean body weight; WHR; HDL in obese/overweight women.

Key words: *Physical Activity; Body Composition; Lipid Profile; Obese/overweight Women*

EFFECT OF RESISTANCE AND ENDURANCE TRAINING ON BLOOD TESTOSTERONE CONCENTRATION IN OLD MEN

Bahareh Sheikh Saraf; Fazlollah Fathollahi; Bahman Tarverdi zadeh; Majid Soltani; Khosro Jalali

Abstract

Aging is associated with quantitative loss of muscle mass (sarcopenia) and subsequent decrement in muscle strength and functional abilities. Exercise can change the impact of some anabolic hormones including testosterone. This study was undertaken to determine the effect of resistance and endurance training on blood testosterone concentration in old men (age 63.7 ± 3.4 yr ; n=45). Participants were assigned to three equivalent groups of control; endurance and resistance randomly (n=15). Endurance and resistance group underwent 8 weeks of training; three times per week. Endurance training consisted of 16min running at 50-55% MHR in week1 reaching 60-70% MHR for 30min till 8th week. Resistance training was two sets with 10 repetitions at 50% 1RM. The intensity of training was increased till week8 (3 sets; 6 reps at 60-70% 1RM). Blood samples were obtained before and after 4 and 8 weeks of training at rest. ANOVA test showed that testosterone concentration in both endurance and resistance group had significant increase after 4 and 8 weeks of training ($p < 0.05$). The hormonal changes produced by resistance and endurance training may be an important stimulus in older men contributing to prevention of sarcopenia.

Key words: *Testosterone; Aging; Sarcopenia; Resistance Training; Endurance Training*

COLORATION OF PHYSICAL ACTIVITY RATING WITH SERUM LIPOPROTEIN (A) CONCENTRATION IN ACTIVE; SEDENTARY AND WITH CRONARY ARTERY DESEASE MALES

Ardeshr Zafari; Maryam Rostami

Abstract

Abstract Increment of Lp (a) is a Coronary Diseases risk factor and evidences indicated that Lp (a) not been alter by exercise training. That is there correlation between physical activity and LP (a)? The aim of this Cross-sectional study was to compare of correlation between physical activity and LP (a) in selected groups of active; sedentary and with CAD men. Estimated VO₂max as a physical activity rating index estimated was based on non exercise prediction equations for VO₂max. Fasting serum concentration of Lp (a) analysis with Immunoturbidimetric method. Pearson correlation equations between VO₂max and Lp (a) in groups are not significant. Therefore; Lp (a) not been alter by exercise training.

Key words: *VO₂max; Lp (a); Physical Activity; CAD*

THE EFFECT OF THE STRENGTH TRAININGS ON HEALTH RELATED PHYSICAL FITNESS FACTORS ON OLD MEN

Mohammad Bagher Nikzad

Iran University of Science & Technology

Abstract

The purpose of doing this research is the effect of the strength trainings on health related physical fitness factors on old men. The motive limitation and physical strengths decrease; and abnormalities; problems and diseases related to the age increase by rising age. The strength training as an important factor can increase the physical abilities on old persons; and beside the effect on performance functional status is made the imporment and decreasing problem related to the oldness. To do this research; it is selected 15 old person $\bar{x} = 65 \pm 5$ as subjects. Subjects performed the strength trainings during 10 weeks with 60% RM; after confirmation of subjects health. After/before 2 days of trainings; subjects performed leg press (muscular strength); side leg raises (muscular strength); 1 mile walking-running (cardiovascular endurance) and 800m walking. The results of this research are indicated that the strength training is meaning fully caused the inertia improvement of subjects on tests of leg press (from $\bar{x} = 47 \pm 2/11kg$ to $\bar{x} = 45 \pm 2/87kg$ $p \leq 0/001$); side leg raises from $\bar{x} = 38/6 \pm 2/3$ repetition to $\bar{x} = 39/9 \pm 2/50$ $p < 0/005$); 1 miles walking-running (from minute to $\bar{x} = 11/42 \pm 0/43$; $p < 0/001$) and 800 m walking (from $\bar{x} = 8/43 \pm 0/46$ minute to $\bar{x} = 7/39 \pm 0/56$; $p < 0/005$)). According to this that the strength trainings are increased the health related physical fitness on old men; then these trainings with given intensity are suggested for old person.

Key words: *Strength Trainings; Aging; Health Related Physical Fitness*

THE EFFECT OF 8-WEEK LOW IMPACT AEROBIC EXERCISE ON PLASMA FIBRINOGEN CONCENTRATION IN OLDER WOMEN

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1. *Islamic Azad University Eizeh Branch*

2. *Shahrekord University*

Abstract

The aim of this research was to investigate the effect of 8-week low impact rhythmic aerobic (LIA) exercise on plasma fibrinogen concentration in older women. subjects were 23 healthy and enable to do physical activity old women of one of retirement homes. Subjects divided to two groups including experimental (n=14) and control (n=11) and after 8 hours nightly fasting for assessment fibrinogen 5cc blood sampling was derived from anterior vein. Afterward experimental groups were participated in LIA training program. Then all of measurements reaped after 8 week training. . For present and post-test comparison between 2 groups; we were use software and paired t-test for comparison in each group and independent between groups. The results showed that 8 week LIA have significant effects on plasma fibrinogen level in older women (p=0/02).

Key world: *Fibrinogen; Low Impact Rhythmic Aerobic Exercise; Old Women*

THE RESPOND OF SOME IMMUNE AND INFLAMMATORY RISK FACTORS OF CARDIOVASCULAR DISEASE IN HEALTHY IMMATURE BOYS (11-14 YEARS) WITH A SINGLE ACUTE EXERCISE

Abdoreza Kazemi¹; Abbasali Gaeini²; Mohammad Reza Kordi²

1. *Tarbiat Modares University*

2. *Tehran University*

Abstract

For this reason, 14 student 11-14 years-old selected randomly from voluntary subjects. In the Preliminary session VO₂max (39/9±4/9), weight (46/07±5/33), height (1/55±0/08), fat percent (16/7±5/6), body composition, BMI (18/9±1/5), skeletal age (12/4±0/9) with X-ray, pubertal age with Tanner-stage (T3, T4) was measured and determined familiar illness was done four day before experimental session. In experimental session, firstly, pre-exercise blood sample collected in fasted state, then every subject on ergometer cycle starts cycling with 65-70% VO₂max for 40 min, post 10 min warming. Immediately post-exercise and recovery blood sample drawn for measurement of plasma leukocyte, C-reaction protein and IL-6. Data analyzed using The analysis of variance with repeated measures (R-ANOVA) test. The result showed there was a significant relation between different blood sampling.

Results: The post hoc (LSD) test also used to find significant differences between each pair of phases shown lymphocyte, monocytes, neutrophils counts and IL-6 level Immediately post-exercise (p value respectively was 0.01, 0.027, 0.02, 0.001) also neutrophils, eosinophils count and IL-6 and hs-CRP levels one hour after exercise statistically was more than pre-exercise (p value respectively was 0.01, 0.04, 0.03, 0.00).

Conclusion: the results of this study have shown, the exercise with mean intensity increase level of some immune and inflammatory factors in immature boys.

Key words: *Immune System; Inflammatory; Immature Boys; Acute Exercise*

THE EFFECT OF INTENSITY EXERCISE ON TNF α AND IGA

Farah Nameni

Islamic Azad University; Varamin-Pishva Branch

Abstract

In vivo depletion of lymphocyte subsets allows investigation of the role of specific subsets in protective immunity. Immune system have potent intracellular that regulate inflammation and immune response .The changes depend on duration and intensity of exercise. This study examined the effect of exhausting exercise on the TNF α and IgA.

20 recreational active women volunteered for this study who were normal healthy; with no positive clinical finding. After having the procedures fully explained to them written information consent. Height (162.81 ± 3.982 cm) ;weight (56.11 ± 5.79 kg) ; Vo₂max (34.18 ± 2.75 ml.kg⁻¹mln⁻¹) ; and body fat ($23.12 \pm .57$ %) of them measured ; later subjects performed exhaustive exercise . Protocol exercise was an incremental treadmill(Bruce protocol).Blood sampling were obtained before and after exercise and were drawn from an anticubital vein with subjects in the seated position .Statistical analysis: Paired t -test were used to determine before versus after exercise differences ; α was set at 0/05. Data are presented as mean \pm SD of the mean .The concentration of IgA and TNF α increased. Inductions of IgA was significant but TNF α was not significant ($P < 0 / 05$).The effect of exhaustive exercise on subjects was significant that may be transient and related with intensity and duration. The results suggest that the exhaustive exercise induced changes in lymphocyte subsets but ; may not induced suppression immune function .

Key words: *Immune System; Exhaustion; Cytokine; Immunoglobulin*

EFFECTS OF 8 WEEKS OF AQUATIC AND LAND PLYOMETRIC TRAINING ON PHYSICAL PERFORMANCE IN YOUNG BASKETBALL PLAYERS

Abbas Asadi; Hamid Arazi¹

1. University of Guilan

Abstract

The purpose of this study was to compare the effect of eight weeks of aquatic and land plyometric training on strength; sprint; power and agility. Eighteen young male basketball players (height=179.34±6.11 cm; body mass= 67.80±9.52 kg; age=18.81±1.46 years; sport experience=4.8 ±2.47 years) volunteered in this study and divided to three groups; aquatic plyometric training (APT); land plyometric training (LPT) and control group (CON). Experimental groups trained eight weeks and 3 times a week and 40 min. Testing measures included leg press strength; 36.5 and 60 meters sprint times; long jump; vertical jump; T test and Illinois. The results in this study indicated that: both groups (aquatic and land) significantly improve in agility; sprint; and power explosive at pretest. Also; there were significant differences between aquatic and control in all variables ($P<0.05$). Therefore; plyometric training in water can be an effective technique to improve physical performance in young basketball players.

Key words: *Basketball; Plyometric; Physical Performance*

THE EFFECT OF 6 WEEKS OF CONCURRENT AND CIRCUIT TRAINING ON AEROBIC POWER IN ADOLESCENT MALE SOCCER PLAYERS

Alireza rahimi; Rouhollah Haghverdi; Mohammad Hosein alizadeh

Abstract

The purpose of this study was to investigate the effect of six weeks concurrent and circuit training on aerobic power in adolescent male soccer players. Twenty-four soccer players (mean age 13.85 ± 0.52 years and mean weight 51.96 ± 8.22 kg) were randomly assigned to two training groups: 1-Concurrent training (n=12) group performed two training programs: resistance training that involved 3sets exercises in the first four weeks and 2sets exercises in the last two weeks (%65 to %75 one RM;8 rep) and endurance training that included 3 repetitions run in the first four weeks and 2 repetitions run in the last two weeks(10 min ;%65 to %75 maximal HR).They performed training programs with an interrupt between two session; and in the last two weeks they did the both training in one session.2- Circuit training group (n=12) carried out the training in ten stations exercises(%70 to%80 maximal HR).All the subjects were evaluated before and after the training period using 1 mile test(aerobic power). For analyzing the data we used t-test dependent samples. Result of this study showed that aerobic power of the players within both groups after six weeks had significant increase... Therefore; it is expected that the both circuit and concurrent training have great influence on aerobic power of adolescent male soccer players.

Key words: *Circuit Training; Concurrent Training; Aerobic Power and Anaerobic Power*

STUDYING THE EFFECT OF A RUNNING EXERCISE PLAN IN SHALLOW WATER; WITH 70% OF MAXIMAL HEART RATE UPON AEROBIC POWER AND BODY COMPOSITION OF YOUNG GIRLS

Akram Hoswini Semnani; Zahra Nobakht; Maliheh Shanbadi

Abstract

Water Aerobic exercises hydroids; are practicable in different forms; such as running; jumping; walking and; which each are followed by exclusive results.

The subjects were 30 untrained (junior high school) girl average age of (11-14) which wrer divided in two experimental and control groups and on each group; aerobic power; body composition; weight and 540m run time has been pretestedand post tested. The experimental group has commenced their running plan; in water with depth of 70% of their height and this plan has been peated 3 times per week and lasted 6 weeks. The running time in water started from 20 minutes and in each session; 1 minute has been added to exercise time until the end; at the final session the tested subjects were exercising in water for 37 minutes.

The outoomes are:

- 1) a significant ($P < 0.005$) increase of absolute $\dot{V}O_2$ max about 4.379 percent.
- 2) a significant ($P < 0.018$) decrease of weight about 1.74 percent.
- 3) a significant ($P < 0.005$) decrease subcatancons fat about 6.55 percent.
- 4) a significant ($P < 0.005$) decrease of 540 run time about 12.83 percent.

Key words: *Maximal & Submaximal Activity; Body Composition; subcatancons Percent*

EFFECT OF ONE COURSE TRAINING PROGRAM ON SOME BIOCHEMICAL AND IMMUNOLOGICAL INDEXES IN ACTIVE GIRLS

Maedeh Sadat Raisi¹; Shadmehr Mirdar²

1. *Tarbiat Moalem University of Gorgan*

2. *Mazandaran University*

Abstract

The objective of this experiment was to determine the effect of a one course training program on some Biochemical and Immunological indexes in active girls.

12 students voluntarily participated in the present study and randomly assigned to one of two groups: experimental and control. Experimental group performed two peaks training program and control group did not perform any physical activity. Venous blood samples were obtained for analysis. Data were analyzed by using ANOVA test; independent t-test. The result indicated that value of AST dramatically increased than at the resting level. Also the value of ALT levels after 24 hours from second and sixth days of protocols; significantly were elevated; but GGT; neutrophil and lymphocyte had not significant changes. The result indicated that value of lymphocyte had increase and value of neutrophil decrease than control group.

So; the continue of the exercise program before full recovery may increase infection risk and hepatic cell damage.

Key words: *Training Program; Immune System; Girles*

THE EFFECT OF SIX WEEK POWER AND PLYOMETRIC TRAINING ON RUN SPEED AND HEIGHT OF GULIEN'S GYMNAST ADOLESCENT BOYS; WITH RESPECT TO THEIR ANTHROPOMETRIC CHARACTERISTICS

Elham Ghari pour; Heidar Sadeghi

Abstract

The purpose of this study was to examine the effect of six week power and plyometric training on run speed and height of Gulien's gymnast adolescent boys; with respect to their anthropometric characteristics. 36 boys with average age of $9/17 \pm 1/42$ yr; height of $134/15 \pm 6/52$ cm; and weight of $29/1 \pm 6/96$ kg participated in this study. They randomly divided into three groups (power; plyometric; and the group had focused on the skill performance jump movement). Two days before start the training program; pre-test to evaluate the level of the performance by means of video based system. The Anthropometric features and the hypodermic fatness are measured. Then; the six weeks designed programs are applied. At the same time; the group that had focused on the skill performance was asked to do just the exercise of jump movement. After six week the post-test were performed in same environment. For the biomechanical analysis; Ulid11 and AutoCAD were used. For statistical analysis; two sided variance and the analysis of co-variance are used. The results showed six week power training and polymeric increased significantly the angle; height and somersault release speed and run speed.

Key words: *Power and Plyometric Training; Anthropometric Aharacteristics; Gymnast; Guilan*

THE EFFECT OF TRANSPORT STYLE TO THE SCHOOLS ON PHYSICAL FITNESS FACTORS

Mohammad Bagher Nikzad

Iran University of Science & Technology; Behshahr Branch

Abstract

Nowadays the decrease of physical fitness level about children and teenagers is clearly observed in many countries. One of the suggested method for increasing physical fitness about children and teenagers is the active transport to school such as walking and bicycling. The recent findings are indicated that children and teenagers who to school by bicycle or walking have more physical fitness than children and teenagers who go to school by other vehicles such as car. We considered randomly 120 students of high school of the east of Mazandaran province on 3 groups of 40 students between 15-17 years old (bicycling; walking and motorist). The measurement method of physical fitness factors and the performed field tests are used aerobic power measurement by 1 mile test running; performance strength by sargent jump; endurance muscle by 1 min test of sit-ups; agility by illinus test; and flexibility by sit and reach test. For average comparison; it is used t-test on independent group between groups and statistic analysis. Average comparison on active and inactive transfer groups is observed in table1.

The finding of this research (table 1) are indicated that the teenagers who o to school by bicycle have more aerobic power; endurance muscle and flexibility than walking group and inactive transfer. Although; there was no difference ($\alpha \leq 0/05$) in agility and muscle strength tests between groups. However; in many factors; walking group was better than passive transport (motorcycle; car; bus; train) but there was no difference in 2 groups. ($\alpha \leq 0/05$) According to this that there was not difference between groups to the rate of sport activities of subjects out of transfer time to school; then it can result than the transfer to school by bicycle have a major share for physical fitness factors. Then; according to above finding; we can suggest bicycling sport as an active transfer method observance of safety points.

Key words: *active transport; bicycling; physical fitness*

**MEASUREMENT AND DETERMINATION OF THE HEALTH – RELATED
PHYSICAL FITNESS OF BOY STUDENTS AGES 9-17 OF EGHlid AND
COMPARING WITH PROVINCE AND NATIONAL NORM**

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1. Islamic Azad University Central Tehran Branch

2. Islamic Azad University

Science & Research Branch

Abstract

The purpose of this study; that is a descriptive type; was to measure and determine the health – related physical fitness of boy students ages 9-17 in Eghlid and comparing with province and national norm. For this purpose 1200 students (male) in 8 age groups were choosed as the sample. Sampling was random and done cluster. Pull ups in the form of sleeping(modified pull-up); sit ups in 60s; 540 m running and sit and reach tests were used to gather data. By using spss.13 software and independent t test ($p \leq 0.05$); data analyzing was done to provide the health – related physical fitness norm. Results showed that Eghlidian students compared with province and national norm had better fitness in pull up; sit up and sit and reach tests except 540m running test.

Key words: *Health-Relate Physical Fitness; Student; Norm; Eghlid*

SURVEY THE EFFECTS OF DRINKING MILK ON SOME OF THE PHYSICAL CAPABILITIES OF 13-15 YEARS OLD BOYS IN SHAHR -E KORD

Mostafa Safian Boldaji; Hamed Safian Boldaji; Majid Kashef¹

Shahid Rajei University

Abstract

The purpose of this study was to survey the effects of drinking milk on some of the physical capabilities of 13-15 years old boys in Shahr -e Kord. The statistical population was all the 13-15 years old boys; which 30 of them were selected from Hazrat-e-Ghaem Elementary school and were divided in to 3 groups of milk1; milk2; and control group. Physical readiness tests including: 540 meter running; sit-up; pull-up; and sit and reach tests were taken from all the subjects in the groups. Before starting the tests; the subjects had similar standard breakfast; then control group didn't take milk; milk1 group did intake 250 c.c milk 1 hour before the tests and milk2 group 2 hours before the starting the tests. Descriptive Statistics were used for normal distribution; Levine test was used for homogeneity of variances; and one-way ANOVA and Tukey post hoc tests were used to show the differences between the groups. The results showed that there was a significant difference between training groups in cardio respiratory variable; which was between milk groups. There was no significant difference between groups in abdominal and shoulder girdle muscles endurance; and flexibility.

Key words: *non Athlete Male Students; Cardiorespiratory Endurance; Muscular Endurance; Flexibility Milk*

EFFECT OF DIFFERENT EXERCISE INTENSITIES ON LIPID OXIDATION DURING AND AFTER EXERCISE IN NON-ATHLETES YOUNG MEN

Abedin Khosravi; Hamid Mohebbi

Guilan University

Abstract

The purpose of present study was to compare fat oxidation rate during and after three different exercise intensities. Eight non-athletes male students (aged; 19.7 ± 1.8 yr; height; 174.3 ± 5.1 cm; weight; 64.5 ± 7 kg; VO_{2max} ; 40.1 ± 4.4 ml/kg/min) participated in this study as subjects. The results of present study showed that absolute fat oxidation rates during and after 75% VO_{2max} and also total absolute fat oxidation rates were significantly higher than other intensities ($P \leq 0.05$). Relative fat oxidation rate during 55% VO_{2max} was significantly higher than other intensities ($P \leq 0.05$). The results of present study be concluded that in order to success in lose and maintenance weight programs; exercise with 75% VO_{2max} can be beneficial.

Key words: *Lipid Oxidation; Post Exercise Recovery; Exercise Intensity; Indirect Calorimetry*

EFFECT OF TWO TYPES OF EXERCISE PROGRAMS (AEROBIC AND RESISTANCE) ON AMOUNT OX-LDL OXIDIZING AND REDUCING BLOOD PRESSURE AND CARDIAC RISK FACTORS - WOMEN WITH CORONARY HYPERTENSION

Hasan Naghibi zadeh; Fereshteh Katbi; Mahdi Katbi

Abstract

The purpose of this study is of two different types of exercise programs (aerobic and resistance) on amount ox-LDL oxidizing and reducing blood pressure and cardiac risk factors hypertension women with coronary..

Method: 45 women with hypertension voluntarily chosen randomly and were replaced in one of three experimental groups.

Research variables were measured in two stages. To analyze data were used from a one-way analysis of variance and post hoc LSD tests.

Results: The results showed that 8 weeks of moderate-intensity aerobic exercise 60 to 65 percent of HRmax decreased significantly the systolic and diastolic blood pressure levels; LDL-c; BMI and was significantly increased over Vo2max ($p < 0.05$)

Resistance training was significantly increased the systolic and diastolic blood pressure and Vo2max ($p < 0.05$).

Conclusion: Thus; for the enjoyment of health and fitness and reduce cardiovascular risk factors- vascular moderate aerobic exercise on a regular basis and principles recommended.

Key words: *Exercise; ox-LDL; Cardiac Risk Factors; Vascular; Hypertension*

THE EFFECT OF REST LENGTH ON MEAN AND PEAK OF SOME PHYSIOLOGICAL VARIABLES AND RATING OF PERCEIVE EXERTION DURING EXERCISES WITH NEAR VVO2MAX INTENSITY

Ehsan Asghari; Arsalan Damirchi; Hamid Mohebbi

Abstract

The purpose of this study was to investigate of mean and peak of physiological changes and rating of perceive exertion during exercises with near VVO2max intensity. Eight male endurance runner students aged 25.5 ± 2.92 years; height 174.62 ± 4.98 cm; weight 69.5 ± 7.34 kg and VO2max 47.38 ± 3.22 ml /kg/min took part randomly in 3 interval exercises with exercise to rest ratio 30 second to 15 second (IT1); 60 second to 30 second (IT2) and 120 second to 60 second (IT3) that separated by two days. Oxygen uptake (with Gas analyzer); heart rate (with telemetric system) and rating of perceive exertion (with Borg scale) were measured throughout exercises. One way analysis variance (ANOVA) and Tukey post hoc test used for determination of any significance difference between groups. The result showed that there was significant difference between mean and peak of HR and VO2 in IT1 and IT3 and RPE in all groups ($P < 0.05$). We conclude that intermittent exercises with shorter exercise and rest bouts; not only can impose better physiological stress upon individual; but also attenuates athlete's rating of perceived exertion and lets him to do exercise with more time than longer bouts and it may be increased the peak of exercise.

Key words: *Peak of Exercise; Shorter Bouts; Rating of Perceive Exertion; Longer Bouts; Endurance Runner*

FAT AND CARBOHYDRATE OXIDATION DURING DIFFERENT INTENSITIES OF EXERCISES IN PROFESSIONAL AND ELITE AMATEUR CYCLISTS

Mohammad Reza Hamedinia¹; Mahdi Zarei¹; Mohammad Shabani²; Jean Medelli³

1. Tarbiat Moalem University of Sabzevar

2. Bojnord University

3. Amins University of France

Abstract

The purpose of this study was comparing the fat and carbohydrate oxidation at different intensities of exercise between professional and Elite Amateur cyclists. Methods: Forty-two professional cyclists (27.3± 4.2 yr) and 31 Elite Amateur cyclists (23.7±3.6yr) performed an incremental exercise test on a bicycle ergometer with 50 Watt increments every third minute until volitional exhaustion. Heart rate; the average volume of oxygen consumption; production carbon dioxide and respiratory exchange ratio were measured during the rest time and the last 3 minutes of the exercise with working loads of 200;300;400 Watt. Results: The results showed that there was no significant difference in RER between two groups at rest time and intensity of 200w; but at intensities of 300w and 400w; RER was significantly lower in professional cyclists (P=0.01). There was no significant difference between professional and elite amateur cyclists regarding the rate of fat and carbohydrate oxidation and the percentage of fat and CHO oxidation at different intensities of exercise. Conclusion: The findings of present study suggested that there is a little difference in fat and carbohydrate oxidation between professional and elite amateur cyclists; but this very little difference and the little carbohydrate saving in professional cyclists leads to their superior performance.

Key words: *Oxidation; Fat; Carbohydrate; Exercises; Cyclists; Professional; Elite Amateur*

EFFECT OF 8 WEEKS AEROBIC TRAINING ON PLASMA LEVELS OF ADIPONECTIN; LEPTIN AND RESISTIN IN HEALTHY MIDDLE- AGED MEN

Arash Saadet nia; Amir Rashid Lamur; Nasim Eizad panah

Ferdowi University of Mashhad

Abstract

The three hormones adiponectin; leptin and resistin due to their association with inflammatory and metabolic; play a vital role in diseases caused by obesity. Researchers want to know if aerobic exercises can bring to desirable plasma levels of these hormones. For this purpose 30 healthy middle-aged men were divided into two groups and 15 of them participate in an eight weeks aerobics training program. Blood samples were collected before and after training program. Results indicate that the experimental group in addition to reducing fat; increasing the amount of plasma adiponectin and Resistin. Plasma leptin levels also decreased. According to previous studies the researchers concluded that aerobic exercise regulates the hormone to ideally amount that help preventing disease.

Key Words: *Aerobic Training; Adiponecin; Leptin; Resistin; Men*

INFLUENCE OF 10 WEEKS RESISTANCE TRAINING ON SERUM VISFATIN IN OBESE WOMEN AGED 45-60 YEARS OLD

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1. *Alzahra University*

2. *Tehran University*

Abstract

Resistance exercise ameliorates metabolic and endocrine profile; reduces muscle deterioration during aging and develops performance in older adults. This study examined the effects of resistance training on serum visfatin levels and HOMA-IR in sedentary menopausal women. Participants included 16 obese women mean age 54 years studied in two control and exercise groups before and after 10 weeks of resistance training (3 days/week at 40-60% of 1RM). Serum level of visfatin; HOMA-IR and anthropometric indices were measured before and 48 hours after last training session. Resistance training significantly modulated neither visfatin level nor HOMA-IR and any significant changes did not exist for anthropometric factors ($P>0.05$). Pearson correlation did not show significant correlation between the primary level and alterations of visfatin and primary and changed values of HOMA-IR and anthropometric factors in resistance groups ($P>0.05$). Therefore resistance training doesn't change visfatin concentrations without influence on HOMA-IR and anthropometric indices in sedentary menopausal obese women aged 45-60 years old.

Key words: *Resistance Training; Visfatin; HOMA-IR; Women*

THE EFFECTS OF 4-WEEKS PLYOMETRIC TRAINING ON ANABOLIC POWER AND AGILITY

Mahdi Mostajabodaveh; Sara Karbalei far

Abstract

Plyometrics are training techniques used by athletes in all types of sports to increase strength and explosiveness. Plyometric drills usually involve stopping; starting; and changing directions in an explosive manner. For this purpose; 16men bodybuilders randomly divided to two homogenous experimental and control groups. After the accomplishment of agility and anaerobic power test; the experimental group participated in the 4 week selected plyometric training (3 sessions per week) and then this test repeated.

Key words: *Plyometric; Agility; Anaerobic power*

THE EFFECTS OF OBESITY; OVERWEIGHT; NORMAL AND UNDER-WEIGHT ON HEALTH – RELATED PHYSICAL FITNESS AND COMPARISON OF THESE FACTORS IN YOUNG MAN AND WOMEN COLLEGIAN STUDENT

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1. Tarbiat Moalem University

2. Payame Noor University of Boushehr

Abstract

Poor physical fitness; as well as obesity; are risk factors for some sever disease insulin resistance; type 2 diabetes mellitus; inflammation and cardiovascular disease. Therefore the purpose of this study was to survey the effects of obesity; overweight; normal and under-weight on physical fitness and comparison this factors in young man and women collegian student. Material and methods: 149 students was selected from Payamenor university of Boshehr city and divided into an obese and overweight; normal weight and underweight groups based on body mass index. T independent test were used for analyses of data in two groups. SPSS software version 16 was used for analyses of data at levels of $\alpha < 0.05$.

Obese young man and women had poorer performances on all tests requiring propulsion of the body mass. Other results indicate; mean of physical fitness tests was higher in underweight students. There are a significant differences in all test (540 meter ($p < 0.001$); 4×9 meter run ($p < 0.001$); sit-up test ($p < 0.001$) and push up test ($p < 0.001$) and vertical jump ($p < 0.001$) between young man and women. Overweight/obese students had poorer performance in cardiovascular endurance; agility and power of lower limb than non-obese subjects. Results of this study show that young women have lower scores on all fitness components.

Key words: *Physical Fitness; Cardiovascular Fitness; Obesity; Student*

THE EFFECTS OF A PERIOD OF MILITARY SERVICE ON BODY COMPOSITION COMPONENTS AND FACTORS OF PHYSICAL FITNESS IN POLICE FORCES

Mohammad Ali Nodehi; Mohammad Taghi Khorand; Alireza Tabrizaiian; Mojtaba Ahmadi

Abstract

The purpose of the present study was to investigate the effects of a period of military service physical fitness and body composition components in police soldiers.

For this purpose from 200 soldiers; 124 were selected nonrandomly. The mean age of the subjects was 22.9 ± 0.34 yrs; also weight and height of subjects were accordingly 74.3 ± 13.3 kg and 170.3 ± 9.27 cm.

The method of the study was explained to the subjects; and they filled up the informed consent and medical-sport forms. Then subject participated in military service training for two month. Physical fitness and body composition components were measured at pre-post tests accordingly:

1. Local endurance of abdominal muscles by using sit-up tests (2 min): 2. Power of the leg muscles by using standing long jump test; 3. Speed; by using 60 meter run test; 4. Shoulder girdle muscle endurance by using push-up test (2 min): 5. Agility; by using 4x9 m. back & forth run test; 6. Cardio-respiratory endurance by using 3200 m. run test. Skinfold fat of the subjects were measured; and according to that; percent body fat and fat free mass were computed. At the end; the t- student test was used to compare the pre and post-tests.

The results of this study revealed that there is a significant increase in cardio-respiratory endurance; local endurance of abdominal muscles; shoulder girdle muscle endurance; power; speed and agility ($P \leq 0.05$). A significant decrease was indicated in body weight; percent body fat and fat mass of the subjects ($P \leq 0.05$). On the other hand; a significant decrease; was also observed in fat free mass. Therefore it can be concluded that a period of military service training caused significant changes in physical fitness and body composition components. However; there are two points of consideration mentioned below;

1. Significant decrease in body fat in order to improve the physical fitness of the subjects is explainable; however significant decrease of weight and fat free mass concerns other variables related to physical fitness and body composition; such as sleep; and rest; nutrition and other psychological factors.

2. The significant increase of all physical fitness components of the subjects is not an indication of a high quality-training program. Because; the results of the subjects pre and post-tests and comparing them to reliable norms indicated that they were very weak; and even in post-test.

Key words: *Cardio-respiratory Endurance; Strength; Muscular Endurance; Fat Mass; Fat Free Mass; Police Forces*

THE EFFECT OF TWO MONTH AEROBIC EXERCISE AND DRUG INTERVENTION ON BODY COMPOSITION IN WOMEN WITH TYPE II DIABETES IN KERMANSHAH CITY

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Abstract

Obesity and sedentary associated with increasing of prevalence type 2 diabetic. Regular physical activity improved blood glucose control in patients with type 2 diabetic. In addition to; aerobic exercise have too mobilization and hilarity and this exercise is safe. In this investigation; we randomized fifty two women with type 2 diabetes mellitus patients to 4 group: aerobic exercise and normal drug doses taking and 1/2 drug doses taking; normal drug doses taking and without exercise and control group (1/2 drug doses taking and without exercise).

Results showed aerobic exercise and 1/2 drug doses taking decreased body mass index and body fat percentage in patients with type 2 diabetes. T test showed pre-test skinfold have more down mean than post-test skinfold. With training aerobic exercise can decreased drug doses taking and encourage patients to training aerobic exercise.

Key words: *Aerobic exercise; BMI; skinfold; body density; Diabetes mellitus*

AN INVESTIGATION ON THE RELATIONSHIP AND COMPARISON OF BODY COMPOSITION AND PHYSICAL FITNESS ITEMS OF I.U.T MALE AND FEMALE STUDENTS

Jahangir Hamidi Tehrani

Abstract

Progress in science and technology as well as developments in sports and physical education; especially after World War II; let the problems to be seen as a scientific phenomenon. On the other hand; increase of student body efficiencies has been an important objective in universities and especially in physical education departments. According to the importance of more knowledge about physical fitness conditions of people; this study was carried out to compare and find the relationships of body composition and physical fitness in Male and female students of Isfahan University of Technology. Descriptive method was used in this research and research sample of 500 female and male students in physical fitness classes were randomly selected among students of all statistical population; then Ayfrd test; fat under the skin; and BMI test using an advanced caliber were done. To analyze the findings; descriptive statistics and inferential statistics including Pearson correlation test (R) and test (T) in independent groups were used.

The findings of this study indicate that body composition between physical fitness tests with the material relations are different and only some of the factors as follows: There is a significant relationship between pull-ups and students body weight with $r = -0/417$ and between pull-ups and students relative fat with $r = -0/519$ with $p < 0/01$ obtained was also observed that the average student test records obtained from the average level of total male and total fitness condition is not good; but compared with their female students significantly ($p = 0/000$) have more favorable performance; female students except sit and reach test and fitness of these students is poorly estimated. And 79 percent fat under the skin of female students in "high" and "too high" is. And percentage of fat under their skin significantly ($p = 0/000$) is more than male students.

The results of this research indicate that variables such as weight; body composition; and fat percent had significant contribution on the estimation of physical fitness items. The data shows that fitness status of students is desirable and this is more acute in the case of female students. The high percentage of fat under the skin of students shows the lack of physical activity which can be a health threatening parameter. Therefore it seems necessary to plan and motivate students in order to encourage them to exercise and to provide adequate facilities and appropriate promotions which can result in higher physical preparation and physical fitness.

Key words: *Physical Fitness; Body Composition; Test Ayfrd*

THE RELATIONSHIP BETWEEN TWO FUNCTIONAL TESTS OF FIREMEN AND THEIR LEVEL OF CARDIOVASCULAR FITNESS

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Buali Sina University of Hamedan

Abstract

The aim of this research was to research the capability of firefighters' functional tests to measure the actual level of their cardiovascular fitness. Method: 25 people were selected voluntarily among the newly employed firefighters. The raised tests from this group were include of Iran and Hong Kong's index functional tests; which at the final stage the firefighters' aerobic power were evaluated by direct method under standard conditions; at Olympic National Academy.

The results of the research revealed that the VO_2 max relative values of individuals in Hong Kong and Iran testes were: (SEE=0.03; R=0.23 SEE=0.15; R=0.03 respectively); which were not remarkable statistically ($p>0.05$). Thus; according to the results of this research; the cardiovascular with a threshold scale of $45 \text{ ml} \cdot \text{min}^{-1} \cdot \text{kg}^{-1}$ might be a sign of a desirable level for firemen.

Key Words: *Aerobic Power; Functional Tests of Firemen*

THE EFFECTS OF STRENGTH TRAINING ON C - REACTIVE PROTEIN AND PLASMA FIBRINOGEN IN UNTRAINED YOUNG ADULT MEN

Heshmatollah Parsaian; Farshad Ghazalian; Zahra Seyed Alangi; Fatanhe Khanali

Abstract

The purpose of this study was to investigate the effect of strength training on C-reactive protein and plasma fibrinogen in untrained young adult men.

The subjects of this research consisted of twenty-four healthy student men with mean age (25 ± 1.19) years; weight (74.37 ± 5.38) Kg; height (174.70 ± 5.51) cm which were divided randomly into two groups : strength group (n=12) and control group (n=12).

The strength training was consisted of 12 weeks; 3 days per week in circuit pattern in 6 stations. Each training session included three sets with (70; 80; 90%) intensity of one maximum repetition (1RM) with (12; 10; 8) repetitions in every station respectively. Data were analyzed by t-test ($\alpha \leq 0.05$). Results showed that strength training cause non significant decrease in C-reactive protein; fibrinogen; weight and body mass index (5.47; 5.12; 1.9; 3.57%) respectively; significant decrease in body fat percent (12.28%) and non significant maximum oxygen consumption in untrained young adult men. The results suggest; with any doubt; that strength trainings have inverse effect on CRP and fibrinogen; so it can be used as predictors of coronary heart disease.

Key word: *C - reactive protein; Fibrinogen; Maximum Strength*

EFFECT OF A DETRAINING COURSE ON SOME PHYSICAL FITNESS INDEXES AND LACTATE DEHYDROGENASE (LDH) AND CREATINE PHOSPHOKINASE (CPK) ENZYMES IN BLOOD SERUM OF ELITE TAEKWONDO PLAYERS

Sayed Abdollah Hashemvarzi

Islamic Azad University; Sari Branch

Abstract

The purpose of this study was to investigate the effects of two weeks of detraining on some physical fitness indexes and lactate dehydrogenase (LDH) and creatine phosphokinase (CPK) enzymes in blood serum of elite taekwondo players. Sixteen elite male taekwondo players with the averages of age of $18/43 \pm 1/20$ years; weight $64/49 \pm 3/03$ kg and years of experience $6/46 \pm 1/36$ years were selected voluntarily based on interviews and questionnaires and all of them were participated in taekwondo training for four weeks equally. Then the subjects were divided randomly into an experimental and control groups. The experimental group had a two-week detraining; while the control group continued its training program. To calculate of anaerobic power and speed (physical fitness indexes) were used consecutive vertical jumps (Ergojump) test for 30 seconds and speed 40 yards test in two phases (Before and after of detraining). Blood samples to determine the desired enzymes were taken in before and after of detraining following 12 to 14 hours of being empty-stomached. Data was analyzed via dependent and independent t-test in significant level $P \geq 0.05$. The results of this study have demonstrated that two weeks of detraining caused insignificantly decrease of anaerobic power ($P = 0/057$) and significantly decrease of speed ($P = 0/001$) in taekwondo players. Also it was observed that the levels of CPK and LDH blood have reduced significantly ($P = 0/001$) after tow weeks of detraining. Based the above finding; it can be claimed that two weeks of detraining have a negative effect on speed and levels of CPK and LDH blood in taekwondo players.

Key words: *Detraining; Physical Fitness; Blood Enzymes; Elite Taekwondo Player*

THE EFFECT OF A TRAINING PROGRAM SPECIFIED PERIOD OF DYNAMIC BALANCE; MUSCLE POWER AND AGILITY IN ELITE MALE BASKETBALL PLAYERS

Daruosh Khodamardi; Fataneh Malek; Arash Khodamardi

Abstract

The purpose of this study evaluated the effect of a training program specified period of dynamic balance; muscle power and agility were elite male Basketball players. Quasi- experimental research methods and statistics population included Iranian Elite male basketball players. Sample study of 20 players invited to the camp's basketball national team to participate in 2008 Beijing Summer Olympics; which formed the subjects of the mean \pm SD age 24.1 ± 2.07 yr; length 196.95 ± 12.25 cm; weight 97.60 ± 18.60 kg; with play experiment 9.6 ± 2.48 yr and play experiment in national team 5.2 ± 2.1 yr. Training program was eight week and include body building; technical and tactical work that before and after The dynamic balance; muscle power and agility were measured. Done Training Program improve those factors and skills considered them. . Study results shown that design training program with special coach can influence to elite Basketball players and peak performance skill.

Key words: *Dynamic Balance; Muscle's Power; Agility; Basketball*

EFFECT OF AN 8-WK ENDURANCE TRAINING PROGRAM ON MUSCULAR POWER; AGILITY AND BALANCE IN SOCCER PLAYERS

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Islamic Azad University GilanGharb Branch

Abstract

This research is going to see the effect of an 8-wk endurance training program on Muscular Power; Agility and Balance in Soccer Players. For doing this 18 soccer players of GilanGharb league were selected randomly the age; weight; height and body mass index (BMI) (average of subjects was $24/08 \pm 4/56$ years; $176/28 \pm 5/12$ cm; $71/11 \pm 9/41$ kg; $22/88$ kg/m²). the method used here was semiexperimental including pre test; post test and control group. The subjects pre tested for physical efficiency index (Harvard step test); Muscular power (standing broad jump); agility (4×9 meter) and balance (stroke stand test) testes. After that the subjects of experimental group (n =18) took part in selected endurance exercise three times a week for eight weeks. Each session was 90 minutes including 10 min warming up; 30 min run with 60 percent VO₂ Max; 50 min technique and tactics reviewing also playing football. While the control group did nothing. After 8 weeks the subject post tested. The pre-test and post-test results were compared. In order to analyse the data we used t-test with the spss15/5 the significant level considered was ($\alpha=0/5$). The results showed that 8-wk endurance exercise caused meaningful increase in mean of muscular power ($p<0/05$); agility mean ($p<0/05$) and balance mean ($p<0/05$) in soccer players.

Key words: *Endurance Exercise; Motor Fitness; Muscular Power; Agility; Balance; Soccer Players*

INTRACTION EFFECT OF SIX WEEKS EXERCISE TRAINING AND GREEN TEA ON CARDIOVASCULAR RISK FACTORS IN SEDENTARY YOUNG WOMEN

Bitra Azimi¹; Javad Mehrabani¹; Arsalan Damirchi¹; Reza Elmieh²; Mehrzad Kherandish¹

1. Guilan University

2. Islamic Azad University Rasht Branch

Abstract

This study evaluated the effects of green tea beverage on lipids profile; blood factors; blood pressure and body composition during aerobic exercise of sedentary females.

32 females with age range (25-29 years) and body mass index BMI (27.1-30.1kg/m²) randomly-chosen into one control (8) and three experimental groups (n = 24). The green tea groups subjects received 4.5 gram green tea (equivalent 250 mg catechin) three or four cups daily. Train groups performed a 50-60 minutes 3 days/week for 6-weeks period aerobic exercise at 50%-70% of maximal oxygen consumption (VO₂max) before and after supplementation.

Six weeks aerobic training; and concomitant use of green tea significantly reduced body composition (BMI and abdominal fat and round buttocks and waist) and TG and TC and hs-CRP and WBC than did the control group (p<0.05) and the other hand; improvements in VO₂max and HDL levels. (p<0.05); but LDL levels did not change significantly.

These results suggest that habitual green tea ingestion; in combination with moderate-intense exercise; was beneficial to improve the body composition and aerobic power and also improve the lipid profile with reduced amounts of C-reactive protein.

Key words: *Aerobic Exercise; Green Tea; Blood Lipid*

EFFECTS OF AGE ON THE RESPONSES OF HEMATOLOGICAL VARIABLES TO ACUTE ENDURANCE EXERCISE

Akram Moradi; Hiva Rahmani; Sajjad Ahamadi zad

Abstract

The purpose of this study was to investigate the effects of age on the responses of hematological variables to a single session of endurance exercise. For this reason 30 young (20-30 years); 30 middle-aged (40-50 years) and 27 old (60-70 years) male subjects participated in the study. After determination of VO_{2Max} ; all subjects performed one session of endurance exercise including 30 minutes cycling at 60-65% of VO_{2Max} ; which was followed by 30 minutes of recovery. In addition to measuring the hemodynamic variables; three blood samples were taken before; immediately after exercise and after 30 minutes of recovery and were analyzed for hematocrit; hemoglobin; red blood cell count; mean cell volume (MCV); mean cell hemoglobin (MCH); mean cell hemoglobin concentration (MCHC); white blood cell count; platelet count. Changes in response to exercise as well as recovery were compared among the three groups by using independent one-way ANOVA. Endurance exercise resulted in significant increases ($P<0.05$) in all parameters except for MCV. Hemoglobin; hematocrit; red blood cell count increased significantly in response endurance exercise by 7; 6 and 5.7 %; respectively; while all parameters except for MCV; MCH and MCHC during recovery were significantly ($P<0.05$) decreased. Hemoglobin and hematocrit during recovery were significantly decreased by 5.5 and 5.2 %; respectively. There were no significant differences ($P>0.05$) among the responses of all parameters to endurance exercise and recovery in three groups. Based on the findings of present study; it could be concluded that responses of hematological variables to acute endurance exercise and recovery are not affected by age.

Key Words: *RBC Indices; White Blood Cell Count; Platelet Count; Age; Exercise*

EFFECT OF GLUCOSE FEEDING RESPONSES ON PLASMA GHRELIN AND GH AFTER A SINGLE SESSION OF AEROBIC EXERCISE IN MALE

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1. Mazandaran University

2. Islamic Azad University Ayatollah Amoli Branch

Abstract

The aim of this study was investigation of the effect of glucose on plasma ghrelin; GH; and glucose after a single session of aerobic exercise in young man.

Material and Method: Twelve Unathletic student men separated randomly in two groups (glucose and water). Consecutive-one mile running was performed; with 3 min resting in the end of each mile. Blood samples were taken at before; immediately and 90min after exercise. Plasma ghrelin; GH and glucose were measured. Possible statistically significant differences were determined by two-factor ANOVA for repeated were employed. The difference detected by ANOVA were located with a LSD (with Benferoni correction) post hoc test.

Results: showed that ghrelin and GH significantly increased immediately after exercise.

Discussion: Data indicate that a higher ghrelin in the present study might be attributed a liver glycogen and ATP deficiency and an incomplete energy source recovery after exercise.

Key words: *Aerobic Exercise; Ghrelin; Glucose*

EFFECT OF COMBINATION EXERCISE TRAINING ON SEX HORMONE BINDING GLOBULIN IN POSTMENOPAUSAL WOMEN WITH BREAST CANCER

Reza Nuri

Abstract

Studies indicated that decreased sex hormone binding globulin (SHBG) can increase the risk of breast cancer and its recurrences in postmenopausal women. On the other hand; it's possible that exercise training can affect SHBG. Therefore; the aim of current study was to clarify the effect of combination exercise training on SHBG in postmenopausal women with breast cancer. Thus; 29 postmenopausal women with breast cancer that received surgery; chemotherapy and radiation therapy divided in to two groups; experimental and control. Subjects of experimental group performed 15 weeks combination exercise training including walking (2 sessions per week) and resistance training (2 sessions per week different from walking days). Pre and post of 15 weeks; body weight; BMI and serum SHBG levels were measured in to two groups. Data were analyzed using by ANCOVA and significant levels set as $p < 0.05$. The findings of present study demonstrated that combination exercise training has significant effect on body weight; BMI and serum SHBG levels ($p < 0.05$). In experimental group; body weight and BMI were decreased and SHBG levels were increased; after 15 weeks. In conclusion; combination exercise training can increase serum SHBG levels in postmenopausal women with breast cancer; significantly. Because of elevated serum or plasma SHBG levels can reduce risk of breast cancer and its recurrences; combination exercise training during treatment can reduce recurrence of breast cancer by increased levels of SHBG.

Key words: *Combination Exercise Training; Breast Cancer; Sex Hormone Binding Globulin*

THE EFFECT OF ENDURANCE TRAINING ON REGULAR TREATMENT PROCEDURE AND ULTRA-RAPID OPIUM THERAPY (UROT) OF ADDICTED VOLUNTEERS IN SELECTED TREATMENT CENTERS OF TEHRAN

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1. *Islamic Azad University Ashtian branch*

2. *Aerobic and physical fitness federation ir.IRAN*

3. *Nutrition council NOC*

Abstract

The purpose of this study was to assess the effect of regular endurance training on treatment procedure of addicted males. The subjects in this experiment *were volunteers* for treatment in selected opium therapy centers of Tehran. The highly motivated participants for treatment selected as statistical population. 288 addicted people [22 – 24 years old, weight 62+ 3.5 kg, height 169.3 + 2.7 cm, addiction duration 2 + 0.3 years and Vo2 max 38+ 6.3(ml/kg/min)] whom treated with methadone, and different usual treatment procedures like Ultra Rapid Opium Therapy (UROT), day treatment, treatment at home and acrostic methods were selected. For this reason, RTCQ (readiness to change questionnaire), ASUP (addiction substances using pattern) questionnaires were used. Urine analysis was used to detect treatment period and recovery and lapse indicators. Bruce test and clinical survey were used for eight control and experimental groups. After treatment procedure, regular exercises were started in experimental groups. Schedule of exercise was 3days per week continues aerobic training during 8 weeks and its training patterns for participants were assessed and devised by trained physicians. Recovery and lapse during treatment period was detected by urine analysis. Findings suggests lapse in addicted peoples who used regular trainings were less than the others. This findings show that regular training has bilateral effect on VO2max and better treatments in experimental groups.

Key words: *Addicted, UROT, Training, RTCQ, ASUP*

Sport Mangement

Oral Presentation

CUSTOMER RELATIONSHIP MANAGEMENT (CRM) IN PHYSICAL FITNESS CLUBS

Mahmoud Goodarzi

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Abstract

Although customer relationship management has been identified as an important business approach in enterprise institutes; there is no universally accepted definition of CRM. Swift defined it as an enterprise approach to understanding and influencing customer behavior through meaningful communications in order to improve customer knowledge recovery; customer acquisition; customer retention; customer loyalty; and finally customer profitability (2).

Thompson (2002) knows CRM as a business strategy to select and manage the most valuable customer relationships. 15%-40% of those customers who mention that they are satisfied leave enterprises annually. Capturing a new customer costs five to seven times more than retaining existing customers.

98% of dissatisfied customers do not explain their dissatisfaction and they only go to other competitors. Within a span of one or two years; those customers who are fully satisfied purchase the services or products of an enterprise six times more than those who are just satisfied. A 5% decrease in customers leaving an enterprise will result in 30%-80% profitability. If the enterprises increase customer retention by 2%; they can decrease their administrative expense by 10%.

14% leave the enterprises due to complaints; 9% due to competitors; 9% due to displacement and 68% have no reason to leave (the last percentage shows that 68% do not have a specific reason why they leave an enterprise).

Retaining the existing customers and capturing new ones need efficient and effective management with an emphasis on market management (1). Most sport organizations understand that they cannot receive customers' satisfaction for a long time by chance and huge investment. They have learned in successful partnerships that sport customer retention and profitability depends on continuous effort. In private clubs; customers are considered as properties as those who begin receiving service will profit an enterprise; therefore; club managers should attract more customers; retain them and lose fewer customers. Customer satisfaction measure is a valid and reliable instrument with which marketers assess their relationship with their customers.

Key words: *Customer; Marketing; Relationship Management*

STUDY OF SATISFACTION; NEEDS AND PROBLEMS OF PHYSICAL FITNESS AND AEROBIC CLUBS CUSTOMERS

Habib Honari

Allame Tabatabaee University

Abstract

Customer and understand customer needs; the secret of success and durability of various organizations in today's competitive world. Today's world is Quality and competitive world. So any organization or institution that cans through a communication system and customer satisfaction research related factors of goods and services to find your chance to find lasting and more profitable to. Today; the world research centers and academic centers in various areas including sports fields and sports industry in various researches to investigate and identify factors and customer satisfaction have done. Topic is such a valuable customer that some organizations as a business partner and customer base are considered the main organization. And the famous Japanese "right client" indicates the importance and place of customer. Among different organizations in the field of physical education and sports; fitness and aerobic clubs played an important part in attracting and keeping their users and in this regard significant costs for the construction of sports complex and capture specialists are undergoing exercise.

This study aimed to investigate satisfaction; user needs and problems of physical fitness and aerobic clubs are in Tehran. The statistical community; including users set physical fitness and aerobic exercise in Tehran is that the number 570 was chosen as the sample. As cluster sampling was random. Descriptive and inferential statistical methods were used. Research hypothesis of the binomial test and t-student and regression analysis using SPSS software review and analysis was used. Generally; research results showed that the collision between the variables included social workers; good pay; facilities and rates; management; staff expertise and staff categories; levels of expertise and coaches came to work; easy access and appropriate positive and significant relationship There are ($P < 0.05$). It also became clear that the ranking of factors between male and female sports customer satisfaction that there are significant differences ($t = 3.02$; $p < 0.01$). Results of this study indicate that between staff and community approach to customer satisfaction that there are significant positive relationship ($r = 0.705$; $p < 0 / 01$) between the appropriate fee payment and customer satisfaction has established a positive and significant relationship ($r = 0.652$; $p < 0/01$). Health and safety matters between sports complex and customer satisfaction has established a positive and significant relationship ($r = 0.74$; $p < 0 / 01$). Between physical features and sports facility sets a positive and significant relationship exists ($r = 0.654$; $p < 0/01$). Between the quality of human resources and customer satisfaction sets sporting significant positive relationship exist ($r = 0.456$ $p < 0 / 05$). Expertise and efficiency between coaches and customer satisfaction that there are significant positive relationship ($r = 0.71$; $p < 0 / 05$).

According to the results of the research managers and planners with clients that sports complexes are aerobic exercise and physical fitness in order to attract maximum user satisfaction and

participation in sports and lively environment is universal sports agents proportional factors affect gender-specific Terms and academic audiences have close attention.

Key words: *satisfaction; customer; sports sites; human factors; social encounter*

AN ASSESSMENT AND EVALUATION OF THE SAFETY PROPERTIES AND STANDARDS OF AEROBIC AND PHYSICAL FITNESS CLUBS AND OFFERING REQUIRED SOLUTIONS

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1. *Shahid Beheshti University*

2. *Ghom University*

Abstract

The aim of this study was to verify and quantify the safety properties and standards of aerobic and physical fitness clubs across Tehran city and to provide required solutions. For this purpose a sample of 103 clubs were selected through Bartlett's sampling strategy. Using the systematic random sample, the samples were selected from five districts of Tehran city. Using the cluster sampling, the clubs were selected and evaluated. Data was gathered utilizing checklist (reliability 0/91). The checklist included a Questionnaire (comprising 190 questions) regarding four components including: The facilities safety, ceiled places hygiene factors and Equipments, limits and lines.

In order to analysis the data, the inferential and descriptive method was used. The statistical test selected for the analysis was the Kruskal-Wallis test and the .05 significant levels were used for the test. Data analysis indicates that the facilities had a good situation as compared to other components. Almost 94 percent of clubs had a good situation in terms of windows, height and other facilities. A significant difference ($p=0 /025$) was found between different districts of Tehran city regarding the facilities. The situation of facilities in the northern districts was better than the southern and western districts. There was no significant difference between different districts in terms of the components of ceiled places ($p \geq /05$), though titaly these facilities hadn't a good situation across all districts. All clubs were devoid of ceiled places. There was a significant difference ($p= /013$) between different districts in terms of the components of equipments and lines. This significant difference is indicative of the good situation in the northern district and improper situation of the southern and western districts. A significant difference ($p= /000$) was found between different districts in terms of the hygiene component. This difference is indicative of the good situation of northern districts and improper situation of southern district. Generally, all the aerobic and physical fitness clubs across different districts of Tehran city need serious consideration and care from a safety perspective.

Key words: *Facilities, Ceiled Places, Hygiene Condition, Equipments, Limits, Lines*

HYGIENE; SAFETY; AND EQUIPMENTS STATUS IN ISFAHAN'S PUBLIC AND PRIVATE SPECIALIZED BODY-CONDITIONING CENTERS FOR WOMEN

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2. *Isfahan University*

Abstract

In this study; hygiene; safety; and equipments status is examined in public and private body-conditioning centers specialized for women in Isfahan. It is a descriptive-comparative study. At the time of research; the city of Isfahan had 46 (18 publics/28 privates) specialized body-conditioning centers for women. By stratified random sampling; 12 centers (4 publics/8 privates) were selected for the study. Data were obtained using NSCA Safety Checklist for Maintenance and Cleaning of a body-Conditioning Facility and its Equipment. Factors being nonstandard in more than 50% of centers assumed to be inadequate. In general; 40 hygiene; safety and equipment factors were checked in order to obtain data on quality of flooring and walls; quality of environmental equipments; safety and maintenance of sport equipment; and safety and cleaning of facility environment. When public and private centers were considered together; there were 13 (33%) hygiene; safety; and equipment inadequacy. When public and private centers were considered independently; there were 12 (30%) inadequacy in private sector and 24 (60%) inadequacy in public sector. These data suggest that quality of hygiene; safety; and equipment is far better in private sector. They also necessitate that quality of hygiene; safety; and equipment are improved as soon as possible; especially in public sector. It was revealed that at the time of research; private centers bear 61% of the load of women sport with a better quality and no expense for government. Rather than imposing extra financial costs on private sector in different forms of taxation; it is recommended that the road is paved for their development by supporting them financially and legally.

Key words: *Safety; Equipment; Body Conditioning Center; Private Sector*

INVESTIGATION OF RELATIONSHIP BETWEEN MARKETING MIX AND BRAND EQUITY IN PHYSICAL EDUCATION AND AEROBIC CLUBS

Mohammad Hosein Ansari; Habib honari; Manijeh Houshyar

Allame Tabatabai University

Abstract

The goal of current survey is to Investigation of relationship between marketing mix and brand equity in physical education and aerobic clubs. The statistical set includes physical and aerobic clubs in Tehran and 384 person was chosen as sample using cluster sampling. The data were collected using questionnaire; validity of which was evident by experts. The questionnaire constancy was assumed 0.9 using Kronbach Alpha coefficient and Regression analyse was used. The results indicate a significant relationship between Ingredient of marketing mix and brand equity in physical education and aerobic clubs.

Key words: *Marketing Mix; Brand Equity; Physical Education; Club*

STUDY OF EFFECTIVE CAPABILITIES ON SPORTS TOURISM DEVELOPMENT IN GOLESTAN

Abdolhamid Zeitounli¹; Habib Honari²; Abolfazl Farahani¹; Hasan Asadi³

1. Payame noor University

2. Allame Tabatabai University; Tehran University

Abstract

Analysis capabilities and resources represents an important first step in the development and management of sports tourism purposes. The purpose of this research is study capabilities and resources effective in Golestan province to develop and management of sport tourism in the Golestan province. Statistical Society study (53 experts and officials; 74 tourists; 90 physical education teachers); respectively. The study instrument was questionnaire; with validity and reliability ($83\% = \alpha$). For data analysis was used Factor analysis . The results showed that 79% Statistical Society study mentioned that Golestan province is one of the important and capable destinations for sports tourism development and tourist attractions and were considered capable of developing various sports related to seaside and summer; sports related to mountain; snow and winter sports related Regional and semi-desert plains is broad. The traditional sport of Equestrian Sport Tourism major attractions in Golestan province have mentioned.

Key words: *Resources; Attractions; Tourism; Sport Tourism Development; Management; Purposes Golestan Province*

THE INFLUENCE OF SERVICE QUALITY; CUSTOMER SATISFACTION AND ATTITUDINAL LOYALTY ON BEHAVIORAL FUTURE INTENTION OF PARTICIPATIONS IN FITNESS CENTERS

Vahid Saatchian¹; Sayed Mahdi Rasouli¹; Eisa Eskandari¹; Alireza Elahi¹; Ahmad Mahmoudi²

1. *Tarbiat Moalem University*

2. *Tehran University*

Abstract

The purpose of this study was influence of service quality; customer satisfaction and attitudinal loyalty on behavioral future intention of participations in fitness centers. This study was descriptive-co relational. The population of study includes all costumers of aerobic and fitness centers in Rasht and 104 people elected randomly. To gather data standard questionnaire of service quality (QSS) Alexandris (1999); customer loyalty (AIS) Alen (1990); customer satisfaction (OCS) Victor (2002) and behavioral future intention (BFIS) Bery (1996) was used. Results indicated that there was positive and significant relation between service qualities with loyalty; satisfaction and behavioral future intention. Also there was positive and significant relation between loyalty with satisfaction and behavioral future intention and finally customer satisfaction had positive and significant relation with behavioral future intention. Regression test showed that only customer satisfaction and loyalty can affect behavioral future intention. Eventually it should be considered that fitness and aerobic club managers should play a great role in customer satisfaction by stating on their promises and providing more tangible services to attracting loyal customers.

Key Words: *Service Quality; Customer Satisfaction; Attitudinal Loyalty; Physical Fitness & Aerobic*

A COMPARISON OF PHYSICAL FITNESS OBJECTIVE WITH OTHER OBJECTIVES OF PE CURRICULUM

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1. *Islamic Azad University Jiroft Branch*

2. *Guilan University*

Abstract

The purpose of the present study was to compare the priority of physical fitness special objectives of physical Education and Sport curriculum. In this study 385 P.E. specialists' 2610 P.E. teachers; 1079 students and 1012 parents were selected as subjects from 25 provinces of the Iran. A researcher-made questionnaire with high internal consistency of ($r=0.71$) with 15 items on five likert value was used to determine the priority of 5 major objectives (physical; skill; cognitive; emotional and social) of P.E. curriculum. Specialists and teachers in a selective way and parents and students in a simple random way were chosen as samples. The; centers of study and research; and heads of P.E. departments in different provinces of country were selected to collecting parents & students. The interview was used to complete the questionnaire hierarchical. The data were analyzed by Kruskal –Vallis test in level of $P \leq 0.05$. The results indicated that from the specialists; teachers and students' point of views; a significant difference existed between mean ranks of all the specific objectives in three levels of academic scandals. However; from parents' point of views; no significant difference existed between P.E. objectives in 3 academic levels (except emotional objective).The comparison of the objectives in elementary level; indicated that emotional and social objectives from specialists point of view; skill and physical development objective from teacher point of view; cognitive and social objectives from student and parents point of view in high priority. The comparison of these objectives in junior high school showed that the physical fitness and emotional objectives from specialists and teachers point of view were in high priorities. However the students and parents point of view in this level was similar to primary level. In high school level; the physical fitness & social development objectives from teachers & specialist point of view; and the emotional and social objectives from parents and students point of view were in high priorities ($P \leq 0.05$).

Key words: *Physical Fitness; Physical Objectives; Physical Education; Curriculum; Students*

EXAMINE THE ROLE OF SPORT MEDIA IN PROMOTING AND DEVELOPING THE COMPONENTS OF PHYSICAL PREPAREDNESS SPORT

Mahdi Moradi¹; Habib Honari¹; Abdolhamid Ahmadi²; Alireza Ahmadi¹; Satar Moradi¹

1. *Allameh Tabatabai University*

2. *Jahad-e Daneshgahi-e Keshvar*

Abstract

Given the significant role of media in shaping and giving direction to the beliefs; attitudes and thoughts of society and also the role of physical activities and physical preparedness in clearing the physical and mental status of society; the issue that rise is to what extent the sport media have contribution in development and promotion of physical preparedness components? The research methodology is descriptive-comparative; the type of the research was applied; the method of accomplishment was survey; and data collection was field study. Research Population was the sports and media experts. Research sample included 140 people and sampling method was non-random. A researcher-made questionnaire consist of 60 items with 10 dimensions and 5 point Likert scale was used to collect information. The validity of the questionnaire was determined by 15 experts in the field of communication sciences; physical education and sports. Its reliability is also determined through Cronbach's Alpha ($\alpha=0.84$). Kolmogorov-Smirnov test was used to investigate if the data is normal and Wilcoxon test was used to determine the significance of hypotheses. From the viewpoint of media and sport experts; in level of $P=0.05$ there is significant difference between the status quo and desired status of the sport media's role in developing and promoting the components of physical preparedness sport. It seems that the main reason for difference between status quo and desired status from the viewpoint of examinees is the lack of comprehensiveness of sport media programs or the lack of insight from media people about various dimensions of athletic sports.

Key words: *Sport Media; Physical Activity; Physical Preparedness*

STATISTICAL MODEL TEST FOR ECONOMICAL-PHYSICAL FITNESS PARAMETERS AFFECTING THE ATTRACTION OF THE SPORT SPECTATORS

Adeleh Sadeghi Moghdam; Reza Mohammad Kazemi; Farzad Ghafouri

Abstract

The aim of the present research is introducing a statistical model of economical-physical fitness parameters motivating sport consumers. Admon (2005) found that health and fitness improvement are some of main motivations for sport involvement. The importance of the current subject is that; it's provide the useful information about the influence of the attraction of the sport spectators on the economy and conducting the managerial programs via understanding the relations between costumer and parameters which affect the attraction of coliseum sport spectators. The statistical sample comprises 100 men and women spectators. Statistical methods were Structural Equation Model (SEM) and Lisrel8.8 with $\alpha=0.05$. The results of SEM showed that physical fitness and economical parameters have direct and positive effect on sport involvement and re-attendance of spectators at sport events which have a good agreement with the findings of Bochet (2010); Lim (2009) and Trail et. al (2009).

Key words: *Statistical Model; Economical-Physical Fitness Parameters; Athletes*

CUSTOMER-ORIENTED MANAGEMENT PRINCIPLES IN SPORTS PLACES AND SPACES AS AN EFFECTIVE STEP TO PROVIDE PHYSICAL AND MENTAL HEALTH OF CITIZENS

Habib Honari; javad shahlaei; Alireza Ahmadi; Mehdi Moradi; Yazdan Sobhani

Allameh Tabatabai University

Abstract

The aim of this research was to study the factors affecting productivity of sport places and spaces in the city of Tehran in the field of customer-orientation. The methodology of the study was descriptive-survey that was conducted as a field-study. The research population included experts and managers of sports places and spaces in Tehran; and the sample consisted of 40 managers and experts. The sampling method was non-random. The measure was a researcher-made questionnaire with 45 items and 7-point Likert scale that its validity was approved by 13 experts. Cronbach's Alpha was used to determine its reliability which was $\alpha = 0.87$. The descriptive statistics was used to describe the examinees status in terms of education; age; and sex. Friedman Test was applied to prioritize the factors affecting productivity of the sports areas in the field of customer-orientation. The results showed that in customer orientation field; cross-relation and interaction of managers with the community places highest priority (5/80) and type of application (athletic; educational and entertaining) has the lowest priority (4/80). The findings could play an important role in satisfying users of sporting spaces (as a most-user field in the city).

Key words: *Sport Spaces; Productivity; Customer; Customer-orientation; Satisfaction*

SPORT SPONSORSHIP SELECTION MODELING OF IRAN'S LEAGUES

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1. *Guilan University*

2. *Ferowsi University of Mashhad*

Abstract

The purpose of this study is modeling of sport sponsorship selection in leagues of Iran. The statistical populations consist of sponsors who sponsored 9 sport teams in super leagues which were active .134 sponsors were selected as samples. The method which is applied in this research was descriptive and correlative .Researcher – made questionnaire was used to collect data which its content and face validity was confirmed by 15 experts university panel . Coranbachs Alpha coefficient was used to test the reliability of the questionnaire ($\alpha = 0/94$) . Factor Analysis with a varimax rotation was used to analyze the data. 24 variables were selected and classified into four categories “Sport nature ; Sponsor nature; Management interests and Culpability degree. Finally ; due to Path analysis; the model of sport sponsorship selection of Iran has been made. Exploratory model indicated that Sponsor nature and Sport nature factors are independent factors and Capability degree is as a dependent and intermediary factor; also the Management interests is as a respond and dependent factor. Sport nature has the most effect to Management interests with (0/52).

Key words: *Sport Sponsorship Management; Sport Marketing and Sport Sponsorship Selection*

A COMPARATIVE STUDY OF SIGHT OF OWNERS; MANAGERS AND COACHES OF PHYSICAL FITNESS CENTERS IN ABOUT NEEDS TOTAL MANAGEMENT INFORMATION SYSTEM

Mohsen Bagherian; Habib honari; Farideh Ashraf Ganjouei

Abstract

This study sought to investigate the requirements of management information system(MIS) for Iranian sport managers and coaches; in order to design a MIS to improve the quality of management in Physical Fitness facilities(PFF). We hypothesised that current sport management computer software programmes do not adequately satisfy the manager's needs; because they have not produce in a good manner and methodological basis. So we design a questionnaire with 54 item that include 9 parameter about needs of Total Management Information System for PFF. Samples are 12 owners(mean age = 36.24 ± 7.71); 15 managers(mean age = 33.67 ± 9.37) and 35 coaches(mean age = 29.51 ± 5.76).The results of this study indicated that there were no significant differences in Needs of Total Management Information System between Sight of Owners; Managers and Coaches of Physical Fitness Centers ($F(1;59)=2.85$; $P<0.05$). The results represent that definition of any system and information field of its; is necessary as first phase in system design. Also the results indicated that these needs include basic informations are needed for developing a new sport information system. To improve the quality of management in sport; we suggest the use of these information for design and produce of sport information systems.

Key words: *MIS; CDM; Analysis and Design; Physical fitness*

REVIEW BARRIERS TO BUILDING SPORT INFRASTRUCTURES AND SOLUTIONS WITH EMPHASIS ON METHODS OF BOT

Aniseh Bourbour; Sayed Mohammad Hosein Razavi

Abstract

Physical activity and exercise in the current situation in various countries the world as indisputable necessity has been accepted; So to develop physical activity and sport in communities need to increase the sports venues. Due to limited financial resources and shortage of goods and services required Physical Education Organization and the Earth causing expensive problems are building sports venues; hence the possibility of governments to respond to contemporary needs of society; not all eventually turned to the private sector have privatization process and ownership transfer of state shares or quasi-governmental firms to institutional investors outside the natural and legal structure of state ownership refers to the many advantages can be created; especially in terms of value and synergy to create a system in privatization procedures variety of projects to avoid the problems stated that one of these solutions is the use of BOT contracts of many problems that can advance a project to prevent and sports development projects to improve; this method private sector job design; construction and operation to do projects and project financing is in charge. The purpose of this study suggests some strategies for removing barriers to building places sports. Given that reviews and studies as a library researcher made solutions to express the obstacles and barriers are addressed.

Key words: *Sport Infrastructure; BOT Contracts; Construction Barriers Places Sports*

Information Technology and Physical Fitness

Behzad Salmani; Ahmad Mootab

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Abstract

Numerous technologies made improvements in sport and athletes have been associated with other inventions. Information technology (IT) has influenced different sections in sport field which can be classified in different parts. For an example it can be considered in other fields like: 1-sport equipment 2- sport management sport 3-sport education. IT has had a lot of influences from aspect of equipment devices such as measuring heart beat distance; acceleration and variety of connected systems to athlete's body during exercise. Tracker balls or lots of other devices which clearly or invisibly have equipped with the power of electronic technologies. Totally it had a lot of effects on other fields too. Aging process among athletes and improved motions and environmental sanitizing has been easier than they were in the past by usages of IT. Remedies and injuries and up to dated information about diseases and movements and regulating sport programs have brought about none sheer of practicality. Managing sport affairs and specified coaching along with enhanced abilities among therapists. IT has developed information and precision which were impossible before. One of the essential changes in sport is management. Motor analysis individually or socially has changed form and type of sport management. However researches done in IT show that these are not enough. Because of that one of the demands to determine current situations in our country and assessing existed potentials and comparing it with international standards which its practical approach regarding a gap between the international level and current level in our country; it is considered as a necessity. Soft ware designed by our own country engineers are specified for healthy diet; weight training; physical fitness and aquatic training for elites and elderly and young people in both genders. Usages of this software can be considered as a suitable database for programming and introduced according to current situation of sport society.

Key words: *Information Technology; Physical fitness; Physical fitness software*

A SURVEY CHALLENGES ENTREPRENEURSHIP IN SPORT OF IRAN FROM THE VIEW POINT OF SPECIALISTS AND PRESENTING REFORMATION POLICIES

Zeinab Mandali Zadeh; Habib honari

Allameh Tabatabai University

Abstract

The purpose of this study is survey challenges of entrepreneurial in sport of Iran from the point of view sport manager's and entrepreneurship manager's professors and top manager's physical education organization and presenting reformation policies. The study was descriptive survey that was used interview and questionnaire to data collection that its reliability ($\alpha=.95$) is obtained after its validity confirmation (by professors). Data was analyzed by Factor analysis test ($KMO=.86$; $\chi^2=2138.987$). The result showed that the most important challenges were lack of appropriate infrastructures for business; lack private investment in sport and activities of other administrative devices in sport of Iran. A survey of conflicts and challenges entrepreneurship in sport emphasized on effective planning and attention for employing in sport and using safe planning by competence managers to provide background for entrepreneurship and employment. Finally this paper; suggests reforming solutions for the challenges of sport entrepreneurship.

Key words: *Entrepreneurship Challenges; sport; Iran*

THE ANALYSIS OF RELATIONSHIP AMONG SERVICE QUALITY; MEMBERS' SATISFACTION AND LOYALTY IN AEROBIC CLUBS IN KARAJ

Ali Benesbordi; Sayed Nasorollah Sajjadi; Ahmad Mahmoudi; Rasoul Zabetian

Abstract

The purpose of this research was the analysis of relationship among service quality; members' satisfaction and loyalty in aerobic clubs in Karaj. Method of the research is descriptive and correlation kind. The statistical population was the members of aerobic clubs. 12 clubs were selected in a random cluster way and totally 141 questionnaire were collected. In the research standard Liu questionnaire was used that has been translated and its validity was subscribed by specialist teachers. Reliability of questionnaire also was calculated by Cronbach's alpha coefficient ($\alpha= 0/87$). The analysis of data was assessed in two distinct levels: descriptive and inference (Pearson correlation coefficient and linear regression). The result showed there is a significant relationship between service quality and members' satisfaction; service quality and members' loyalty; members' satisfaction and members' loyalty in aerobic clubs of Karaj. Otherwise members' satisfaction effected the variance of members' loyalty more than service quality.

Key words: *Service Quality; Members' Satisfaction; Loyalty; Aerobics*

THE COMPARISON LEADERSHIP STYLES OF COACHES OF PARTICIPATED IN AEROBIC AND FITNESS NATIONAL COMPETITION ON 2010

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1. Islamic Azad University Karaj Branch

2. I.R.Iran Federation of Physical Fitness & Aerobic

Abstract

The main objective of this research was to determine and compare different leadership styles among coaches of participated in Aerobic and fitness National Competition on 2010 year in Islamic Republic of Iran.

- The statistical population of this research consisted of 100 female coaches of participated in that competition. Total coaches were selected as the statistical sample of this research. As this research was a descriptive survey; two questionnaires were used to collect the necessary data. The Collected data were analyzed by inferential and descriptive statistical methods and the below results were achieved in the meaningfulness level ($P < 0.05$):
- Coaches in two sport disciplines have more tendencies to use the task - oriented leadership style and their task - oriented were high level. Fitness coaches have more tendencies to use the task-oriented leadership style compare to Aerobic coaches. But their differences were not meaningful.
- Coaches in two sport disciplines have tendencies to use the moderate level of people oriented leadership style and their differences were not meaningful.
- Coaches in two sport disciplines have tendencies to use the moderate level of integrated leadership style and their differences were not meaningful.

Key words: *People; Oriented; Task; Oriented and Integrative Leadership Styles; Coach; Fitness; Aerobic*

PREPARING NATIONAL NORMS OF PHYSICAL FITNESS FOR ADOLESCENT AND YOUTH MALE IRANIANS

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1. I.R.Iran Federation of Physical Fitness & Aerobic

2. Islamic Azad University Karaj Branch; 3. Islamic Azad University Firooz Khooh Branch

Abstract

Preparing national norms of physical fitness in various age groups can be useful in evaluating physical and motional capabilities of athletes. On the other hand; evaluating athletes is a necessity in sports. Due to the importance of these norms; the goal of the present research is to prepare national physical fitness norms of adolescent and youth male Iranians. The statistic population was from all provinces of the country that among all; 17 provinces were chosen as samples of the research. The subjects were divided into 2 groups of 15 to 16 years of age (adolescent) and 17 to 18 year-old (youth). In this research; station tests include of agility; weight movement; Medicine ball throws; and jumps were taken; and also 540 meter track test was used in order to measure cardio-respiratory endurance. A descriptive method of research applying measure of central tendency; frequency; and percentile techniques were chosen. In addition to finding norm; the other results was prepared: in adolescent; the lowest and highest time for moving weight was 9.60 and 15.00 seconds; 16.31 and 23.30 seconds for agility; 540 meters track 1.49 and 2.63 minutes; jumping 4.50 and 7.78 meter. Medicine ball(2kg) throws 10.75 and 4.30 meters. In youth; the lowest and highest time for moving weight was 8.90 and 14.80 seconds; 15.31 and 17.39 seconds for agility; 540 meters track 1.42 and 2.10 minutes; jumping 5.75 and 8.42 meter. Medicine ball (2kg) throw s 6.40 and 11.20 meters.

Key words: *Physical Fitness; Norm; Adolescent; Youth*

Sport

Management

Poster Presentation

THE STATISTICAL MODEL TEST FOR ECONOMICAL-PHYSICAL FITNESS PARAMETERS AFFECTING THE ATTRACTION OF THE SPORT SPECTATORS

Adeleh Sadeghi Moghdam; Reza Mohammad Kazemi; Farzad Ghafouri

Abstract

The aim of present research is recognition of the parameters which affect on sport spectator attendance and introducing a theoretical model .entertainments are important parameters which affecting the sport spectators attendance; but since they don't have a meaningful relation with the re-attendance of sport spectators (Admon; 2005).The statistical sample comprises 100 handball spectators which filled out the researcher made questionnaire in a classified randomly manner; before; middle and after the sport event. Statistical methods used were Structural Equation Model (SEM); with Lisrel8.8.The results of SEM showed that physical fitness-economical parameters which are investigated at the coliseum sports; have direct effect on re-attendance of spectators at the stadium. However there is a strong direct relation between physical fitness and economical parameters; physical fitness parameters have higher effect on the attendance of spectator than economical parameters. But; the economical parameters have higher influence on re-attendance of spectators directly. Findings showed that there is a direct relation between physical fitness-economical parameters and attraction and finally re-attendance of spectators in the coliseum sports which has a good agreement with the findings of Bochet (2010); Lim (2009) and Trail et. al (2009).

Key words: *Statistical Model; Economical-Physical Fitness Parameters; Sport Spectators*

STUDY RELATIONSHIP BETWEEN CUSTOMER LOYALTY AND RELATED FACTORS IN THE SPORTS COMPLEXES IN TEHRAN

Jahangir Soleimani Damaneh; Mehrzad Hamidi; Ahmad Mahmoudi

Tehran University

Abstract

The purpose of the present study was to investigate the relationship between customer loyalty and concerning factors in sports complexes in Tehran. Since sports service market like other service markets; is competitive in nature; Managers of sport complexes aim at raising the quality of their work and increasing customer satisfaction levels and thus increasing customer's loyalty to their sports places. The statistical population of this study included all sport customers attending sport complexes in Tehran. Through the use random cluster sampling 5 districts were selected and 197 questionnaires were distributed among customers. In order to determine the relationship between variables; Pearson test was used. The results showed there was a positive and significant correlation between customer satisfaction and their loyalty to the sport complexes. Also; there was a positive and significant correlation between quality service and customer loyalty in sport complexes ($P < 0/05$).

Key words: *Loyalty; Sport Complexes; Customer*

INVESTIGATION OF LIMITED AND MOTIVATIONAL FACTORS TO TAKING PART OF GIRL STUDENTS OF MEDICAL UNIVERSITIES IN PHYSICAL ACTIVITIES AND OFFERING EXECUTIVE STRATEGIES

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2. Islamic Azad University Kermanshah Branch

Abstract

The aim of this research is Investigation of limited and motivational factors to taking part of girl students in medical science activities in athletic activities and offering executive strategies. 240 athletes and 241 non-athletes completed the questionnaire that measured four aspects included: physically; psychology; attitude-cultural and sport facilities. result showed according to the priority of limited factors for participation in physical activities consists: sport facilities; attitude-cultural; psychology and physically. For priority of motivational factors were sport facilities; psychology; physically and attitude-cultural finding showed sport facilities was important role in limited and motivational factor for participation in physical activity. Establish sport facilities in Dormitory can help student participation in physical activity.

Key words: *Limited and Motivational Factors; Girl Students; Medical Universities; Physical Activities; Executive Strategie*

DESIGNING AND DEVELOPING A COMPREHENSIVE SYSTEM FOR ENTREPRENEURSHIP IN SPORT OF IRAN

Zeinab Mandali Zadeh; Habib Honari; Mahboubeh Naghavi

Allameh Tabatabai University

Abstract

The purpose of this study is designing and developing a comprehensive system for entrepreneurship in Sport of Iran. The research method is descriptive_ analytic one and was conducted as a survey. Statistical sample in this study consisted of 90 subjects including: clubs managers; professors and Ph.D student of sport management and top managers of the physical education organization of Islamic Republic of Iran. In developing and designing a comprehensive system recognized internal and external factors of entrepreneurship with attention of role and importance of employment and financing in sport .Then; according to internal and external matrix; entrepreneurship position in sport was place in defensive status which consequently leads to preparing SWOT table and finally it is possible to develop the strategies. In conclusion; we can say that WT strategies should be applied with attention to the existing statues of entrepreneurship in the field of entrepreneurship in sport.

Key words: *Strategic Plan; Entrepreneurship; SWOT; Sport*

THE COMPARISON OF QUALITY OF LIFE FOR THE ELDERLY BASED ON DIFFERENT LEVELS OF PHYSICAL ACTIVITY IN THE CITY OF SHIRAZ

Alireza Sabet Sarvestani; Mehrdad Afkhami

Abstract

The purpose of this study to compare quality of life for the elderly based on different levels of physical activity in the city of Shiraz in 1389 was conducted. In this study; the research is type event (eli comparison). For this purpose; 120 elderly residents of nursing at the center of Shiraz Jhandyrgan example and were randomly selected. Elderly participants eligible after completion of physical activity determined based on the type and duration of daily activity and calorie intake was designed in three groups of 40 people; active; semi active and inactive were divided; then the elderly questionnaire quality of life for quality of life measure was designed to complete. Data obtained by the quality of life questionnaire 24 questions through tests descriptive statistics (mean and standard deviation) test and one-way analysis of variance (ANOVA) with Scheffe post hoc test (SHEFFE) and by using SPSS version 16 was mode analysis. Some research findings include; the mean age of participants in the study was 65/66. Average score of life quality in the sample is 72/75. The highest score (93/17) related to the active group and the lowest score of elderly men (43/16) related to the group is inactive elderly men. Quality of life of semi-active group is 75/92.

Keywords: *Quality of Life; Elderly; Physical Activity*

THE PRIORITIZATION OF WOMEN CUSTOMER SATISFACTION FROM AEROBIC AND FITNESS CENTERS IN SABZEVAR

Farideh Hadavi¹; Vahid Saatchian²; Sayed Mahdi Rasouli; Mojgan Ali abadi³; Bagher Morsal³

1 .Islamic Azad University Isalam Shahr Branch

2 .Tarbiat Moalem University

3. Islamic Azad University Shahroud Branch

Abstract

The purpose of this study was prioritization of women customer satisfaction from aerobic and fitness centers in Sabzevar. This method of this study was descriptive-survey and it was performed on a field study survey. The population of study includes all costumers of aerobic and fitness centers in Sabzevar and 106 people elected randomly. To gather data made questionnaire used according to previous studies.. Results indicated that costumers with less than 1 year participation had the motivation of weight control; 2-3 years costumers participate for good shape body and the ones with more than 2-3 years were there for fitness and finally more than 3 years participations had the health holding motivation. In satisfaction aspects; socialization with load of (0.76) had the most significant and the fee; buffet and club place (load= 0.46) were the least important factors. Eventually it should be considered that fitness and aerobic club managers should play a great role in customer satisfaction by stating on their promises and providing more tangible services to attracting loyal customers.

Key words: *Satisfaction; Marketing; Physical Fitness and Aerobic; Women*

EVALUATION OF EFFICACY INTRAMURAL ACTIVITIES; ISLAMIC AZAD UNIVERSITY OF ZANJAN

Sayed Hosein Mousavi; Mahdi Reza Gholizadeh; Farzad Khamseh pour

Abstract

This study is attempting to evaluate the efficacy intramural activities of Islamic Azad University –Zanjan Branch. Among 11885 students (boys and girls) in Islamic Azad University-Zanjan Branch in associated degree and B.A; which were formed randomly from 450 people as the sample; were selected. The type of study design is descriptive whose required information has been collected by the questionnaires. Therefore the descriptive statistics is used for classifications; data adjust; mean; standard deviation; percentages; plenty's table; diagrams. Test X^2 significant level 0.05 is used for determining the relationship between the factors educational success; satisfaction level; gender and education field of students. The efficacy of these activities has been regarded minimum by 15.1 percent of the students. 45.8 percent of them have considered these activities medium and 39.1 percent of the participants stated that the efficacy is maximum. Significant difference was observed between satisfaction and student participation in intramural activities. Difference between the academic and their participation in intramural activities was significant. It wasn't found significant relationship between gender and participation of students. There wasn't significant relationship between the field and participation in intramural activities.

Key words: *Evaluation; Efficacy; Intramural Activities*

DETERMINING COASTAL SPORTS ROLE ON TOURISM DEVELOPMENT

Hasan Rahmani Kafshgari; Sayed Mohammad Hosein Razavi

Mazandaran University

Abstract

Tourism Industry has been taken into consideration by man since long time ago. Today; it plays an important role in global economy. The awareness of societies of its importance has made the tourism find a broad meaning in different social and cultural aspects; and it is considered as industry. Seas and beaches have always been one of the places attracted by tourists because of their variety in recreational sources and capacity in potential tourism. Based on 5th Development Plan; Iran should yearly host approximately 20 million tourists by the end of 2024 and the status of sports in the country and holding sports competitions cannot be simply ignored. Considering the library studies done; the researcher has examined the role of beach sports affecting the tourism development.

Key words: *Coastal Sports; Tourism; Sport Tourism; Sustainable Development*

ANALYSIS OF FACTORS RELATED TO CUSTOMERS' LOYALTY IN FITNESS CENTERS OF TEHRAN

Ahmad Mahmoudi; Aram Moradi; Sayed Nasorollah Sajjadi; Mehrzad Hamidi

Abstract

The purpose of the research is analyzing factors related to customers' loyalty in fitness centers of Tehran. Nowadays; customers' loyalty is a key feature in success of commercial and service organizations. So if an organization can reach to customers' loyalty; it prepares ground for its long term and sustainable development. The research statistical population was customers of fitness centers in Tehran. Cluster random sampling was used as the sampling method for this research. The sample volume is from 4 districts of 22 districts in Tehran. A researcher-made questionnaire was used to collect data and 133 questionnaires answered by sample volume were gathered. its reliability was assessed via Cronbach alpha test ($\alpha = 0/89$); Also factor analysis method was used. The results showed that "service quality" with factor (load: 0/86); "customers' satisfaction" with factor (load:0/83) and "attention on selecting brand" with factor (load:0/81) were of greatest importance in customers' loyalty to fitness centers of Tehran.

Key words: *Customer Loyalty; Fitness Centers; Customer*

THE CONTENT ANALYSIS OF PHYSICAL EDUCATION ORGANIZATION CHIEFS' VIEWPOINTS ABOUT THE PUBLIC _ ENTERTAINMENT SPORT FROM 1357 TO 1388

Hamid Ghasemi; Maryam Amiri

Abstract

The aim of the research; content analysis of Physical Education Organization chiefs' viewpoints about the public _ entertainment sport from 1357 to 1388. 325 reports about Physical Education Organization chiefs have been gathered from Ettelaat newspaper; the sampling is whole counting. Content analysis coding sheet for the researcher made as a research tool; after confirming the validity and reliability were used. Test findings revealed between Physical Education Organization chiefs' viewpoints about the public _ entertainment sport is significantly different. Size expressed views about the following sports categories are more general. Considering the role of public sport in general fitness and the importance of health and vitality in community seem to be emphasis and attention to this field by the authorities' talking should be use.

Key words: *Content Analysis; Physical Education Organization Chiefs; Public _ Entertainment Sport*

THE EFFECT OF FOUNDATION COURSE (1) ON PHYSICAL FITNESS OF FEMALE STUDENTS

Fatemeh Mohammadian; Leila Sabaghian rad; Sayed Amir Ahmad Mozafari

Abstract

The purpose of present study was studying the effect of foundation course (1) on female students physical fitness. So that 80 daughter student of Saveh University who took foundation (1) in the second term of educational years 88-89 selected randomly as a sample. The instrument for evaluation of Physical Fitness was the (AAHPERD) test consists of 6 items. The finding of this study does not indicated significant effect in the score of students physical fitness. The results also indicated significant in 2 items include of agility and abdominal; muscle endurance ($p<0.05$). The result of this study indicated that foundation course (1) had not major influence effect to develop of daughter students fitness and spatial consideration in this point seem effective.

Key words: *Physical Activity; Physical Fitness; University; Daughter Student*

SPORT AND VOLUNTEERING DEVELOPMENT

Zahra Taslimi; Sayed Mohammad Hosein Razavi

Mazandaran University

Abstract

Whatever causes prominence a society against others; only due nurture; preservation; outspread and perfectible man and available individuals in any society. Volunteers constitute some of human resources; that operative in encouraging society goals and organization. In analysis of human resources; consideration of sport planners to volunteers is increased daily. Volunteers not only are the most important and powerful human resources to society but also can be base of success of many tasks. The main aim of this article is explaining the necessity of employing volunteers in sport. Considering sort of study that is review; researcher explain consequence of employing volunteers and necessity of their presence.

Key words: *Volunteer; Volunteerism; Sport; Development*

SECURING SPORTS COMPLEXES EQUIPMENTS AND FACILITIES

Farough Fathi; Sayed Mohammad Hosein Razavi

Mazandaran University

Abstract

The purpose of this research to consider the safety places; equipments installations. The management of safety in stadiums in that concept of controlling and optimization of all structural elements; software and software John (national sensitive's; regional and cultures) until to decrease the possibility of danger for workers; personals; spectators; coaches and players in the sport places. According to the researches that were done in the fields of the safety of sport places and equipments; in Iran indicated those were evaluated low to medium. This type of research is review kinds that have paid by increasing the safety solution.

Key words: *Safety; Sport Places; Sports Facilities; Sports Equipments*

ROLE OF MEGA SPORT EVENTS ON BRANDING DESTINATIONS

Abdul Hamid Zeitoonly¹; Hasan Asadi²; Habib Honari³; Abolfazl Farahani¹; Mohammad Pour Ranjbar⁴

1. Payame Noor University

2. Tehran University

3. Allameh Tabatabai University

4. Medical Science University of Kerman

Abstract

Sporting events to help make creating beautiful scenery and unique areas to tourism. The purpose of this study was investigated the role of holding sporting events on destinations Branding with hosted of mega sports event (Traditional Sport ;hors riding) on branding sports tourism destinations in Golestan province. Data from a questionnaire (Cronbach's alpha = 91%) and interviews were collected. Statistical population of this study was 217 patients (53 expert (cultural heritage; physical education; agencies; hotel owners); 74 tourists and 90 sports physical education teachers). For data analysis descriptive statistics and inferential (chi-square test) were used. Findings showed: 77% percent of subjects mentioned that horse riding; traditional sport is major attractive and capable for Sport Tourism Development in Golestan province. Also mentioned that were one of the major reasons tourists visit the Golestan province; were watching traditional horse riding event.

Key words: *Sport Tourism Destinations; Attraction; Event; Development; Traditional Sports; Golestan*

QUALITY OF AIR ENVIRONMENT OF SPORTS BUILDINGS

Saeid Yar Mohhamadi Monfared

Abstract

In recent years; more sports buildings are being built. Owing to the lack of relevant design codes or regulations for the sports buildings many problems have incurred after construction; especially for indoor air environment. These environmental problems could potentially cause serious health issues or limitations federations have guides in different degrees on indoor environment; in order to guarantee the athletes optimal environmental On the other hand; the velocities of air movement in competition venue are usually affected by the airflow in the region of the auditoria; where the air-conditioning must be in operation to satisfy the thermal comfort of audience. The parameters deal with indoor air velocity; temperature; humidity and fresh air volume. This code could be a guide to advice the designing of indoor air environment of sports building with technology developing; it is recognized that good indoor environment means multi elements controlling instead of the single CO₂ only.

Key world: *Air Environment; Sports Buildings; Quality*

DETERMINATION AND PRIORITY OF CRITERIONS OF SITE SELECTION FOR ESTABLISH SPORT PLACE IN URBAN FOR EQUAL ACCESS BY AHP

Karim Zohrevandian; Hasan Asadi; Fershteh Ebrahimi; Amin Dehghan Ghahferokhi

Tehran University

Abstract

Today; the complexity of urban issues has led many variables are influential in site selection that must act considering to the importance and value of each criterion in each region. So; the aim of this study is Determination and priority of criterions of site selection by AHP for establish sport place in urban for equal access of all citizens. Research method is Descriptive-analytical and applied. For collection of data used of Search and study in books and various research and interviews with experts; were obtained four important criterions for to provide of a matrix pair questionnaire and questionnaire gave to experts for paired comparison of criterions. For analyzed of collected information and weights to each criterion used of AHP model in Expert choice and Excel software. Results: four important criterion of site selection for sport place was determined and was weighted; are: population density (0/510); access (0/272); Development potential (0/152) and Neighborhood (0/067). According to this subject that unlike of most executive agencies in my country; 70 percent of the sport budget is allocated to development and construction of sports places (Asadi; 1388); Necessity and importance of investment and increased productivity in different dimensions are more visible. In Result; sport places should be located in city that; in addition to justice in the distribution; the user to achieve maximum productivity and efficiency.

Key words: *Prioritization; Criterions; Site Selection; Access; Sport Place; AHP*

THE SURVEY OF SPORT PLACES & AREAS SAFETY & HYGIENIC CONDITIONS IN ORUMIYEH CITY SCHOOLS IN VIEWPOINT OF PHYSICAL EDUCATION DIRECTORS & TEACHERS

Eskandar Hossein pour; Mir Mohammad Kashef; Mir Hasan Sayed Ameri

Urmia University

Abstract

The present study investigates the hygienic and safety conditions in sporting spaces of urmia from the viewpoint of physical trainers and physical teachers. this study is a descriptive study and was performed by questionnaires .the statistical population was the physical teacher and managers of sporting space of Urmia ;from which 192people were randomly selected to answer the questions. The questionnaire was standard. To check its validity we asked four professors of Urmia University to examine which was confirmed. The koronbakh alpha in the exam was 0.86.descriptive statistic items like (frequency tables; central tendency) were used. to correlate different variables deductive statistics(kh2(were used. the analysis of the data revealed that the quality of the hygienic and safety conditions in sporting spaces of schools in Urmia is low.

Key words: *Safety; Hygienic; Sport Places & Areas; Orumiyeh City School*

COMPARISON OF CUSTOMER SATISFACTION WITH QUALITY OF SERVICE MEN AND WOMEN; PRIVATE GYM CLUBS CITY SHAHROOD

Mojtaba Rajabi; Farzad Ghafouri; Somaye Abbasi

Abstract

This study; comparing the quality of customer service satisfaction clubs city Shahrood had a private gym. Expanding sports and fitness centers in many countries over the past decade; service providers increasingly Sport on quality service and efficient operation; in order to emphasize profitability drawn. Organizations also improved greatly on activities that increase customer satisfaction is; they invest. So measuring service quality and customer satisfaction has become important in bodybuilding and managers; staff and coaches to help resolve existing defects. The population evaluated in this study; gym and private club clients were city Shahrood . Statistical sample of 330 persons were customers who were randomly selected . In this study; data collection tool was questionnaire.

Study findings showed that between the mean rank in the operating environment and operating equipment and physical access to the service men and women there is no significant difference. Other variables in the behavior of employees; employee reliability; and training programs between the average price ranking men and women that there are significant differences. This means that women of higher scores than men have reported.

Key words: *Service Quality; Customer Satisfaction; Private Gym Clubs*

COMPARISON KNOWLEDGE RATE OF RECOGNITION AND PREVENTION MANAGEMENT AGAINST SPORT INJURY IN AMATEUR AND PROFESSIONAL COLLEGIATE FEMALE FOOTBALL PLAYERS

Mansoureh Karimi; Mojtaba Kashani; Ali Chourli; Hamid Reza Ghezelseflou

Higher Education Complex of Gonbad-e Kavous

Abstract

The purpose of research is; comparison knowledge rate of recognition and prevention management against sport injury in Amateur and professional collegiate female football players. Research statistical sample athletes in football competition on 8 areal countries that among 9 groups: 7 groups answered knowledge injury Questionnaire Vang (2006). Results of investigation showed that with attention to T-Test rate between groups; there is not a significant different among score mean on two groups. Also in survery of relation between background athletes with their knowledge score with regard to (p value<0/05) just in variable management of pathology basics there is significant relation; namely. Increase experience lead to pathology high score.

Key words: *Knowledge of Pathology; Management; Amateur and Professional Athletes*

QUALITY OF RECREATIONAL SPORTS AND NEEDS OF WEST AZARBAIJAN PROVINCE SPORT FACILITY

Mehrdad Moharramzadeh; Reza Talaie

Urmia University

Abstract

Study to assess the quality of recreational and sporting needs of places in Western Azerbaijan province pays the study based on time; present oriented; and practical purpose of collecting data based on how descriptive and field studies of reading and Theoretical Evaluation quality of recreational and sporting needs of places in Western Azerbaijan province was conducted. Research data showed. Overall safety of the spectators standing; overall health status related to safety; overall safety and overall safety of sports equipment construction; the West Azerbaijan province below the average level of the country. (In all the tests to be significant differences between yes and no questions using the Chi square test with $p < 0.01$ is expressed.) According to research results and findings can be concluded that the safety tips in making places more attention to sports.

Key words: *Places Sport; West Azarbaijan Province; Checklist*

A SURVEY ON THE RELATIONSHIP BETWEEN ORGANIZATIONAL HEALTH AND STRESS OF THE PHYSICAL EDUCATION TEACHERS IN ZANJAN PROVINCE

Saeid Yar Mohammadi Monfared

Abstract

This study aims at finding the relationship between organizational health and teacher stress in the state high schools in Zanjan. The main question of the research was to examine whether there was a relationship between organizational health and teacher stress in these schools. The method of research is descriptive correlation. 215 teachers were randomly selected from 486 teachers and were asked to complete the Organizational Health Inventory (OHI) and the Job Stress questionnaire. Descriptive statistics (frequency; percentage & mean) and statistical tests (Pearson correlation; regression & one-way ANOVA) were used to analyze the data. The results revealed that there is a negative and significant correlation ($r=-.251$; $p=.05$) between the variables. Also; a stepwise regression was used to predict job stress of the teachers from organizational health. It was found that from organizational health components; consideration; and institutional integrity as predictor variables; can enter the final regression equation for explaining job stress of the teachers of the state high schools in Zanjan and it was found that the consideration component is a better explainer than the structural integrity component. Also using another one-way ANOVA indicated that there is no significant difference between organizational health and education level and between job stress of the teachers and education level.

Key words: *Organizational health; Stress; physical education teachers*

THE EXAMINATION OF ACQUAINTANCE AND IMPORTANCE LEVEL OF COMPUTER SKILLS IN IRAN SPORT ORGANIZATIONS

Sardar Mohammadi; Narges Esmaeili; Golaleh Aboubakri

Kordestan University

Abstract

For the purpose of examination of acquaintance and importance level of computer skills in Iran sport organizations; 137 managers were selected as the sample and responded to the researcher-made questionnaires with the face and content validity (panel of expert); construct validity (exploratory and Confirmatory factor analysis) and the reliability (Alpha Cronbach). For statically analysis; descriptive and inferential statistics (ANOVA; MANOVA) were used. The findings showed that there was a significant difference between acquaintance and importance level of computer skills in PE organization; sport federations and the putty of education and physical education. The results of (MANOVA) showed significant differences among micro scale importance level of computer skills for tasks and projects in sport management. It can be said that because of diversity of sport sector operations; activity variety; fast data changes; it is necessary for managers to get acquainted with and use computer skills; in order that organization processes be done faster; more precise and less expensively.

Key words: *Computer Skills; Sport Organizations*

INVESTIGATION OF RELATIONSHIP BETWEEN DONE BRAND PLANNING AND BRAND LOYALTY IN PHYSICAL EDUCATION AND AEROBIC CLUBS

Mohammad Hosein Ansari; Habib Honari; Mahmoud Jafar pour

Allaemh Tabataba University

Abstract

The goal of current survey is to Investigation of relationship between done brand planning and brand loyalty in physical education and aerobic clubs. The statistical set includes physical and aerobic clubs in Tehran and 384 people was chosen as sample using cluster sampling. The data were collected using questionnaire; validity of which was evident by experts. The questionnaire constancy was assumed 0.87 using Kronbach Alpha coefficient. The results indicate a significant relationship between done brand planning and brand loyalty. Men and women have similar idea about relationship between brand planning and brand loyalty and gender and education have not impact on it.

Keywords: *Loyalty; Physical Education and Aerobic Clubs*

THE COMPARISON OF THE GENERAL HEALTH OF THE ACTIVE AND INACTIVE MALE STUDENTS IN SECONDARY SCHOOLS OF URMIA CITY

Mir Mohammad Kashef; Eskandar Hossein Pour; Mahmood Aghayi; Narges Khalili

Urmia University

Abstract

Physical Education and sport is in general a social phenomenon which can strengthen the relationship of people and the society when improved. Now; there is a common increasing knowledge which says that sport is very beneficial in physical health of people and is effective on the mortal health and personality of the person. There is a lot of emphasis in physical and mortal health in Islamic indoctrine. Goal: Is to compare the general health of the active and inactive male students in secondary schools of Urmia City Methodology: The statistical society of this research includes all male students in secondary schools of Urmia City; of which 6 schools are cluster randomly selected and 370 students are chosen simply randomly of them (192 inactive and 178 active). A questionnaire of 28 questions general health;GHQ (Goldburg and Hiller;Taghavi-2001) was used. To compare the mental health of the active and inactive people and the sub scales of them; the U Mann-Whitney test is used in a meaningful level of $p < 0.05$.

Findings: The results of the U Mann-Whitney test showed that the public health and the sub scales of it (the physical signs; stress; the disorders of social operations and depression) among the inactive and active students hold meaningful differences.

Conclusion: as the students are the coming generation of the country and the future of the country are deeply connected to the; the public health and also the mental health of them in many aspects of sporting or physical activities could guaranty the advance of them in many fields. In fact; to create sport programs and to create proper ground of hardware of it; and also to encourage the students to go on sportive activities; the sport teachers who take responsibilities and are the master of it could help the students in many aspects of morality and passion.

Key words: *The public health; the secondary school male students; motional active and inactive*

**PRIORITY AND INVESTIGATION OF PROMOTION MIX TOOLS FOR
PRODUCTION SECTOR OF THE SPORT INDUSTRY USING AIDA AND BASED ON
AHP**

Narges Esameili; Sardar Mohammadi¹; Zahra Amini Roshan²

1. Kordestan University

2. Kerman University

Abstract

For the purpose of selection of the appropriate promotion mix for production sector of the sport industry; 30 marketing managers of companies producing sport productions; responded to the researcher-designed questionnaire about promotion mix & AIDA model. validity (face & content) has been proved by experts and its reliability as due to the inconsistency ratio of questionnaires which is less than (0.1) can be proved. For data analysis AHP method and Expert Choice 11 software were used. The results showed in the second level of the hierarchy; attention in (AIDA) whit the weight of (0/437); in the third level; advertisement (0.391); in the fourth level; TV among 17 tools (0/173) had the most priority. Consequently regarding the intense competition among companies and fast growth of markets and also fast changing in consumer's behavior; appropriate promotion mix and priority making of it tools help to promoted goals of companies working in this field.

Key words: *Prioritization; AIDA; AHP*

INVESTIGATING THE RELATIONSHIP BETWEEN ORGANIZATIONAL INTELLIGENCE AND CREATIVITY IN PHYSICAL EDUCATION AND NON PHYSICAL EDUCATION TEACHERS IN CITY OF KERMANSHAH

Soheil Heidar panahi; Hasan Fahim; Safoura Jourabchi; Mohammad Ali Sane; Saba Heydar panahi

Abstract

The purpose of this research was to study the relationship of organizational intelligence with creativity level in physical education and non physical education teachers in physical education department of Kermanshah. Statistical sample was 225 teachers who were selected randomly from 2200 people. Data was collected by using Albrecht's OI and randceep's creativity questionnaires. The validity of the questionnaire was checked and confirmed by university expert panel and cronbach's alpha coefficient was used to test reliability of the questionnaires ($\alpha = 0.81$; OI and $\alpha = 0.85$ creativity). Results showed significant correlation between organization intelligence and its dimensions: Strategic vision ($r=0/293$); shared fate ($r=0/223$); Appetite for change ($r=0/297$); heart($r=0/287$); Alignment & congruence($r=0/326$); Knowledge deployment ($r=0/383$); Performance pressure($r=0/3369$) with creativity; ($p<0/05$).

Key words: *Organizational Intelligence; Creativity; Teachers; Kermanshah*

PRIORITIZING OF EFFECTIVE FACTORS IN SERVICE QUALITY OF AEROBIC CLUBS IN KARAJ

Rasoul Zabetian; Sayed Nasrollah Sajjadi; Ali Benesbordi; Ahmad Mahmoudi

Abstract

The purpose of this research was prioritizing of effective factors in service quality of aerobic clubs in Karaj. Nowadays service quality is one of successful factor in service organizations. Customers' satisfaction from services causes to maintaining of customers that leads to success of organization. Method of the research is descriptive and solidarity kind. The statistical population was the members of aerobic clubs. 12 clubs were selected in a random cluster way and totally 141 questionnaire were collected. In the research standard Liu questionnaire was used that has been translated and its validity was subscribed by specialist teachers. Reliability of questionnaire also was calculated by Cronbach's alpha coefficient ($\alpha= 0/87$). Factor analysis with Varimax rotation was used for analysis of data. The result showed empathy with load factor of 0/86; reliability with load factor of 0/85; assurance with load factor of 0/80; responsiveness with load factor of 0/78 and tangibles with load factor of 0/73 were sequentially the most important factors in service quality of aerobic clubs in Karaj.

Key words: *Prioritization; Service Quality; Aerobic; Karaj*

EDUCATION OF COACHES WITH THE STRATEGIC APPROACH: CASE STUDY OF NEW SYSTEM IN CANADA

Batoul Arab Narmi; Hesam Ramezan zadeh

Abstract

Education system for coach depends a lot on culture; politic; and traditions of a nation; hence no single system can be suitable to be followed by others. Yet there are common principles in which it worth it to examine systems thoroughly. It is needed to have a systematic plan to reach to the full capacity in sport of each country. The recent evolution in Canadian coach system is based on merited and needs of participants. Having a national education coach plan; Canada is recognized in the world; and the plan is designed by experts in the field. NCCP is known as a national standard to education and certification for the coaches of country. Considering the importance of coach's education and lack of researches in the field; the researchers are trying to study documents and resources of modern coach education system of Canada; evaluation method; merit needed in different levels; and procedure of certificates equalization. Study of the successful systems can be as an introduction for change situation of training coaches of the country for adapts more and more with international standards in all sport fields like fitness and aerobics in all levels of training and helps to benchmark this system with our country sport needs and practical action can be done.

Key words: *Strategic; Coaching; Education*

ROLE OF SPORT INDUSTRY IN UNIVERSITY GRADUATES EMPLOYMENT

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University of Tabriz

Abstract

Today; unemployment is considered as a sign of undevelopment of world countries. In the majority of countries; real unemployment in urban areas is about 15-25% of employments (1). One of the most important economic effects of sports industries is creating employment opportunities. Sports industry made job opportunity for 60 to 80 million employees around the world. American Sports employees include of 4.5 million and for the 15 members of European Union is about 1.5 to 2 million that have been announced (7). In Iran; unfortunately; there is no comprehensive information about the quantity of employees in sports part; but according to Seminar on Employment and Entrepreneurship (1382); 25000 employees has been estimated that is around %1.07 of the country's employers. However; in Hong Kong is 2.5; Canada and England 2; Australia and Scotland %1.9 and New Zealand %1.3 of the employers in these countries is employed Sports.

Key words: *Sport Industry; Employment; University Graduates*

THE ROLE OF ADVERTISING WITH CELEBRITIES ON SPORTS FOOTWEAR PURCHASE

Rouhollah Fathian; Fariba Askarian¹; Sara Kashgar²

1. *Tabriz University*

2. *Allame Tabatabai University*

Abstract

Advertising has always had an important role in production and consumption process of various products and celebrities in this regard; have an important role in taking attention and attracting more people to sport and to purchase sports goods. This Research Studies the effects of advertisement by sports celebrities on the amount of buying sports footwear.

Research methods: A researcher made questionnaire was used. Its validity was confirmed by marketing and management experts; and its reliability using Cronbakh's alpha ($=\alpha 0/93$). The study population includes the 18+ year old people in Tabriz from which 600 were selected as the study sample using Cochran formula. For data analysis; descriptive statistics was used to investigate the indicators of central tendency and type of population distribution and inferential statistical methods (Kalmogorov- Smiranov Test; Pearson and determining factor in the level of $=\alpha 0/01$ was used

The results showed that the relationship between the use of sports celebrities and customers tendency to buy sports footwear is significant($r=0/75$ & $p< 0/001$) Considering the coefficient of determination (r^2) ; it can be concluded that the characteristics of sports footwear advertisers has the effect of around 56 percent on tendency to buy.

Key words: *Celebrities; Advertising; Sports Shoes*

ENTREPRENEURIAL CHARACTERISTICS OF THE MALE MANAGERS OF QAZVIN'S PRIVATE SPORT CLUBS

Abolfazl Azizi; Habib honari; Farzad Ghafouri; Farshak Kalhor

Abstract

The research method used in this study was descriptive and was conducted in the form a field survey. The surveyed population included all the sport club managers in Qazvin Province; 185 sports club. This information was obtained from the statistics provided by the Physical Education Administration of state in 1389. According to the table the Morgan sample included 120 of the sport club managers. To measure the entrepreneurial characteristics; a standard questionnaire was used which was obtained through a preliminary study of reliability of the questionnaire and had a Cronbach's alpha coefficient of 0.895. the data was analyzed using the descriptive and inferential statistic charts and the Spss-16 statistical software. conclusion:the scores showed that the entrepreneurship scores of the managers was higher than the average score; and the difference obtained based on the correlation test ($P=0.000$) is significant; but the average risk taking score of the managers considering the significance level test which is less than 0.05.

Key words: *Entrepreneurial characteristics; Managers; Qazvin*

A SURVEY OF CUSTOMERS' SATISFACTION FROM AEROBIC AND BODYBUILDING CLUBS OF WOMEN IN KERMANSHAH

Rasool Noroozi¹; Shirin Zadoshtian²; Hasan Fathi³

1. *Tarbiat Modares University*

2. *Razi University of Kermanshah*

3. *Guilan University*

Abstract

The purpose of this study was to determine customers' satisfaction of aerobic and bodybuilding clubs of women in Kermanshah with descriptive method. All the customers' of aerobic and bodybuilding clubs of women in Kermanshah form the statistical population of this study. In this study; sample of 250 individuals is considered. The research tool is a researcher-made questionnaire that its validity and reliability was confirmed. Descriptive methods are used to analyze the data and in order to determine the relationships a multiple variable regression and set priorities Friedman test are utilized. Data analysis results show that only education had a significant relationship with customer's satisfaction among the other demographic characteristics. Also customers' satisfaction Priorities include: satisfaction from the coaches and club personnel; satisfaction from social relations; satisfaction from the club's equipment and physical environment and the satisfaction from the cultural services and facilities of clubs respectively.

Key words: *Customers' Satisfaction; Club; Aerobic and Bodybuilding; Kermanshah; Women*

THE RELATIONSHIP BETWEEN PERCEIVED LEADERSHIP BEHAVIORS OF COACHES AND ATHLETE'S SATISFACTION

Rasool Noroozi¹; Shirin Zadoshtian²; Hasan Fathi³

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2. *Razi University of Kermanshah*

3. *Guilan University*

Abstract

The purpose of this study is to understand the relationship between perceived leadership behaviors of coaches and athlete's satisfaction. The statistical population of this study comprised the entire Women's Basketball League players. The community and the sample population were the same. In order to collect information via demographic questionnaires; Leadership Scale for Sport (LSS) and Athlete's Satisfaction Questionnaire (ASQ) were used. Descriptive methods were used to analyze the data and in order to determine the relationship a multiple variable regression was used. Data analysis results showed that there is a significant relationship between the leadership behaviors of coaches and the player's satisfaction. Also; the findings showed that there is a significant positive relationship between leadership behaviors of positive feedback; training and instruction on the one hand; and the athlete's satisfaction; on the other. But; there was no correlation between the behaviors of social support; democratic and authoritarian types of leadership on the one hand and the satisfaction of the players; on the other.

Key words: *Leadership Behaviors of Coaches; Athlete's Satisfaction; Basketball*

THE EFFECT OF TRADITIONAL GAMES IN PHYSICAL FITNESS IN MALE STUDENTS

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1. *Islamic Azad University IslamShahr Branch*

2. *Allame Tabatabaei University*

Abstract

Traditional games for compliance with local and national interests; taste and art and popular culture eventually accepted by society can well be individuals. This game features simple and can be found in society and regardless of any restrictions and the easiest way through; a wide class of students at different ages will cover.

Hence the purpose of this study is to determine the impact on participation in these games causes physical fitness male students were. For this purpose a random sampling; 60 students composed boys (age $16 / 1 \pm 7 / 23$ years and weight $65 / 6 \pm 7 / 74$ kg) male students from Islamic Azad University Islamshahr Branch that Throughout the year have not had regular physical activity were selected and randomly divided into two groups (n=30).

Cardiovascular endurance; abdominal muscular endurance; flexibility and agility of subjects before and after the exercise protocol (local indigenous games) were evaluated. Exercise protocol was 12 weeks and two sessions per week was (1 hour). A paired and unpaired t-test was used for data analyzing and significant level was considered at $P < 0/05$.

Research findings showed that participation in traditional games to increase significantly in flexibility ($p=0/003$) and muscular endurance ($p=0/043$) and agility ($p=0/038/0$) But in cardiovascular endurance ($p=0/012$) the difference was not significant.

Considering the results seem to be qualitative and quantitative development of traditional games that our country as a suitable tool to gain physical fitness with social and cultural roots can be used.

Key words: *Traditional Games; Physical Fitness; Cardiovascular Endurance; Muscle Endurance; Flexibility and Agility*

PSYCHO-SOCIAL MECHANISM OF WOMEN REGULAR PARTICIPATION IN PHYSICAL FITNESS PROGRAMS

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1. *Tarbiat Modares University*

2. *Tehran University*

Abstract

The purpose of current descriptive study was to determination psycho-social mechanism of women regular participation in physical fitness programs with emphasis on Perfectionism and Social physique anxiety variables. For this purpose; Frost multidimensional perfectionism scale (1990); the SPA questionnaire of Hart *et al.* (1989) and the stages of EBC scale of Cardinal (1997) were employed and administered to 229 women who participated in Mashhad physical fitness centers and had regular physical activity for more 30 days. The data were analyzed by employing Pearson correlation coefficient; Kolmogrov-Smirnov; Mann-Whitney U and independent t tests. Results showed that SPA and perfectionism mean score of subjects were 31.87 ± 8.02 and 111.50 ± 12.91 respectively. There was a significant difference between subjects' perfectionism ($t = -1.754$; $P = 0.002$); parental criticism ($z = -2.563$; $P = 0.010$) and organization ($t = -1.459$; $P = 0.025$) subscales with separate of action and maintenance stages of exercise behavior. On the basis of results; it seems that having regular physical activity related with the medium level of perfectionism and social physique anxiety.

Key words: *Perfectionism; Social Physique Anxiety; Women; Regular Physical Activity*

Motor Behavior

Oral Presentation

ASSOCIATION BETWEEN MENTAL HEALTH & HEALTH RELATED PHYSICAL FITNESS COMPONENTS OF GUILAN UNIVERSITY PERSONNEL

Mojtaba Mohammad Zadeh

Islamic Azad University; Lahijan Branch

Abstract

The purpose of the present study was to provide a health profile of Guilan University personnel and the association between HRPFC's and mental health. Methods: 110 staff was asked about their age; education; physical and psychological health. Measurements were made of blood pressure; height; weight; waist to hip ratio & body mass index (BMI) were calculated & their aerobic fitness assessed by Queen's step test (recovery heart rate); Handgrip strength & body fat percent (Dornin & Womersley Formula) were determined. Psychological well-being was evaluated the General Health Questionnaire (GHQ-28). Results: Most of subjects reported normal mental health (%77/3) but few of those appeared to have mental disorders. Aerobic fitness testing showed poor values among subjects (%71/2); likewise body fat percent was high (%52/7); there were high risk in BMI (%52/7); WHR (%42/8) values of subjects; but their handgrip strength was fair (%50); & only few subjects trend toward an increase in hypertension (%18/1). Discussion: No significant relationships were seen between general mental health and handgrip strength; blood pressure; age and education. But there were found significant relation between subjects' mental health and their aerobic fitness; body fat percent; BMI and either with WHR ($P \leq 0/05$). Conclusion: It appears that for healthy individuals the principal psychological benefit of exercise & fitness may be that of prevention; whereas in those suffering from mild to moderate mental disorders; exercise may function as a mean of treatment. Hence; need to further; effective & large population-based research efforts to show the potential for these interaction impacts. It is suggested that future research might usefully explore the particular contribution of different aspects of the training situation to these effects.

Key words: *Physical Fitness; Mental Health; Guilan*

THE RELATIONSHIP BETWEEN TYPE OF MENTAL IMAGERY; TEAM EFFECTIVENESS AND PERFORMANCE IN AMATEUR AND PROFESSIONAL VOLLEYBALL PLAYER STUDENTS

Noushin Esfahani¹; Hamid Reza Ghezelseflou

1. Alzahra University

Abstract

The aim of present research is focused on investigating the relationship between the type of conceptual imagery to team efficiency and the performance of amateur and professional volleyball players. Statistical community of this research consisted of the players of 8 teams participating in volleyball super league in season competitions in 2008 – 2009. 95 players who had official contract with super league clubs were chosen as professional group and 87 volleyball players who were also students of university and had no official contract with any club and have participated in region 10 volleyball competitions of Azad University in Semnan (n = 109) were put in amateur group. The instruments applied in present research consisted of sport imagery questionnaire (SIQ) that evaluate 5 micro scales (special imagery; general imagery; special motivational imagery; skilled imagery and arousal imagery); Flets collective efficacy inventory (CEI) and Lane questionnaire (2001). After collecting data and applying Calmograph Smirnov test; the assumption that the data are unnatural was rejected; so we used F test; Pierson correlation coefficient and multiple regression for determination of predictive micro scale that have effects on efficacy ($P < 0.05$). The results showed that both professional athletics groups ($m = 6.58$) and amateur ones ($m = 6.13$) used skilled imagery (MG – M) more than other ones. Also; a meaningful difference was observed in group efficacy between amateur and professional volleyball players ($P < 0.001$ and $F = 21.45$).

Key words: *Conceptual Imagery; Team Efficacy; Performance*

EFFECT OF PARTICIPATION IN AEROBIC TRAINING ON PSYCHOLOGICAL WELL-BEING OF NON-ATHLETIC STUDENT BOYS

Behzad Behzadnia; Mohammad Keshtidar

University of Birjand

Abstract

The purpose of this study was to identify the effect of aerobic training on psychological well-being of non-athletic student boys. In this study; 40 non-athlete students (21.6 ± 1.82 years old) in Birjand University were randomly selected. All of the subjects were enrolled in the second semester in physical Education (1) course. Furthermore; they divided into two groups as control and experimental groups. The Ryff's Scales of Psychological Well-being (1989) were used to analyze the psychological well-being parameters in the pre-test and post-test of training. The training protocol was including 12 weeks; and 3 sessions (60 minutes) per week that each subject in experimental group received 15 minutes warm-up; 30 minute aerobic training and 15 minutes cool-down and relaxation training. On the other hand; there was no organized training for control group. A series of statistical procedures including Repeated Measure Analysis of Variance; Independent-Samples T-Test were run for the purpose of analyzing the data. The results indicated significant differences in psychological well-being and its subdivisions in the 3 phases of tests in the experimental group. Moreover; the results also showed the positive influence of 12 weeks aerobic training on psychological well-being of the student boys.

Key words: *Positive Psychology; Aerobic Training; Psychological Well-being; Student*

THE EFFECT OF 10- WEEKS' AEROBIC EXERCISE ON FEELING OF LONELINESS AND SOCIAL- PHYSIQUE ANXIETY AMONG ADOLESCENTS FEMALE

Somaye Seifi; Zohreh Hasani; Bahram Yousefi

Razi University of Kermanshah

Abstract

The current research investigated the effect of 10-weeks aerobic exercise on the feeling of loneliness and Social Physique Anxiety (SPA) in 60 adolescence girls (30control/30experimental) aged ($15.23 \pm .73$). Repeated measures ANOVA was conducted to assess the effect of exercise intervention on these variables. The UCLA loneliness questionnaire and seven items social physique anxiety scale (7-SPAS) were administered as pre-, mid- and post-test to each subject in both groups before the first intervention; at the end of 5 weeks and after 10 weeks. The results of this study revealed that participation in 10 weeks aerobic training program can significantly reduce feeling of loneliness and SPA. Conclusively engaging aerobic exercise for alleviation feeling of loneliness and reduce SPA among adolescents female could be recommended.

Key words: *Loneliness; Social Physique Anxiety; Aerobic Training*

THE EFFECT OF AQUATIC TRAINING; MENTAL TRAINING AND CONCURRENT TRAINING (AQUATIC AND MENTAL TRAINING) ON BALANCE IN ELDERLY MALES

Sajjad Hoseini; Hosein Rostamkhani; Hamdollah Hadi

Islamic Azad University; Tabriz Branch

Abstract

The aim of this study was survey the effect of aquatic training; mental training and concurrent training (aquatic and mental training) on balance in elderly males. For this purpose; 120 elderly men (age $65/07 \pm 14/14$ Yr; weight $71/86 \pm 3/31$ Kg; height $173/2 \pm 3/57$ Cm) were selected and then classified in 4 groups randomly: balance aquatic training (n=30); mental training (n=30); concurrent (aquatic and mental training) (n=30) and a control group (n=30). For estimate subjects' balance; Y-Test was used in three directions. As regards group of balance aquatic training; aquatic training were done to increase the subjects' balance for six weeks; three sessions per week; and one hour per session according to pervious conducted studies. As regards group of mental training; this group did training for six weeks; three sessions per week; 15 minutes per session. For group of concurrent balance aquatic training and mental training; subjects did a combination of training of previous two groups for six weeks and three sessions per week and 1.5 hours per session. Also ability inquiry of Isaac & Mark imagination (1986); which measured subjects' inside and outside mental imagination; was used in order to evaluate the ability of mental imagination. Descriptive statistics was used to describe the subjects' personal characteristic; and for determining the significant difference between the effects of three different exercise methods; ANOVA statistical test and Toki post hoc test ($p \leq 0/05$) were applied. Significant difference is observed in reaching distance of experimental groups after applying exercise programs. In comparison of groups with each other based on the amounts of range; there was difference between reaching distance before and after applying training which presented exact size of the effects of training on balance; it is observed that in every three direction of Y-test the most increase in reaching distance after applying exercise programs belongs to group of concurrent training. Results of this study is in agreement with previous findings indicate a significant effect of exercise training courses on improving the balance. Potential reasons of increasing balance due to training include the increase in strength of subjects' lower limbs after participating in exercise programs; facilitation in the work of great; quick- contraction movement organs; increase in conformity of muscles; applying pressure on neuromuscular systems and the process of removing disinheriting. According the results of this study it suggested that in designing fitness programs for seniors' special attention been aquatic and mental training.

Key words: *Balance; Aquatic Training; Mental Training; Elderly Males*

SOURCES OF SPORT CONFIDENCE IN FEMALE STUDENTS PARTICIPATING IN FITNESS AND AEROBICS COMPETITIONS COUNTRY CHAMPIONSHIPS

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1. Ferdowsi University of Mashhad

2. Imam Reza International University

Abstract

The Purpose of this research was to determine Sources of sport confidence in female students participating in fitness and aerobics competitions country championships. The Sources of Sport-Confidence Questionnaire (SSCQ); Vealey et al. (1998) was given to 108 female students participating in fitness and aerobics competitions Country Championships 2010. Validity and Reliability this questionnaire have been already confirmed by Dolatabadi et al (2007). In the present study the internal consistency by Cronbach's alpha method was confirmed ($\alpha=81$). Descriptive statistics to determine indicators of central tendency and dispersion were used. Data was analyzed by Kolomogrov-Smirnov; levene's test and one-way anova. The results showed that physical/mental preparation; Physical Self-Presentation and Social Support are most important sources of sport confidence ($P=0/000$; $F=37/270$). Generally; these research results supported the multidimensional Sport-Confidence Model by Vealey & Chase (2008).

Key words: *Sources of Sport Confidence; Female students; fitness and aerobics competitions*

TO INVESTIGATE ACTH AND CORTICAL AND ANXIETY DURING ANAEROBIC EXERCISE TRAINING AND HEARING TO THE HOLLY QURAN IN ATHLETE WOMEN

Marzieh Aghamohammadi¹; Parvaneh Nazarali¹; Hasan Ashayeri²; Parichehr Hanachi¹

1. Alzahra University

2. Iran Medical Sciences University (Tehran)

Abstract

The aim of this study was to investigate cortisol and ACTH and physiologic during anaerobic exercise training and hearing to the Holly Quran in athlete women. Twenty four volunteers students divided to two groups (n=12) one who listens to the voice of The Holley Quran (trained) and the next without any voice (control) (age 21.66 ± 2.1 yr; height 163.87 ± 9.8 cm; weight 57.08 ± 5.32 kg) in this study. They run on tread mill while wearing a head set. The blood samples for analyze ACTH and cortisol were collected 5 min before and after training. The rating. Anxiety rates were calculated based on Beck Anxiety Inventory (BAI) before and after the test. The results shows ACTH level in control and experimental groups was $23/816 \pm 5.04$ pg/mlit and $29/250 \pm 6.01$ pg/milt respectively. However after the test; the rate was changed significantly ($p < 0.05$) in control and test groups to $24/966 \pm 4.1$ and $20/325 \pm 3.2$ pg/mlit respectively. The cortisol concentration in control and experimental groups before the test was $15/583 \pm 4.03$ and $14/716 \pm 3.8$ nmol respectively. The cortisol reduced in control and test groups to $7/308 \pm 3.02$ nmol and $13/483 \pm 2.04$ nmol respectively however it was not significant ($p < 0.05$). The anxiety rates were changed in experimental and control group to 2/333 and 4/167 respectively. In conclusion may the voice of the Holly Quran can reduce ACTH and cortisol caused by anxiety and probably the harmful effects of anxiety.

Key words: *Anxiety; Cortisol; ACTH; Rating of Perceived*

THE COMPARISON OF THE BODY IMAGE BETWEEN YOUNG MEN AND WOMEN AND MIDDLE AGE PARTICIPANTS IN AEROBICS SPORTS

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1. *Tarbiat Moalem University*

2. *Alzahra University*

Abstract

The purpose of this research had been the comparison of the body image between young men and women and middle age participants in aerobics sports. The statistical population of this investigation was composed of participants doing aerobics sports in the parks around the Alborz province. Among these amounts of participants; eighty athletes were chosen randomly. The research tools; were included the self physical description questionnaire (3 subscales of body fat; whole body; appearance; figure) and the index of physical activities. For data analysis; the method of analysis of univariate variance was used at $p < 0.05$.

The results indicated that; there is no significant statistical differences between “gender-body image” $p < 0.265$ and “age-body image” $p < 0.408$. Therefore; it can be said that body image in the women is more related to apparent sizes of the body and this issue causes the attention of women to be more observable through the tangible parameters.

Key words: *Body Image; Aerobics; Total and General Self Concept*

THE INVESTIGATION OF EFFECTS OF WATER EXERCISE ON PHYSICAL AND MENTAL DISORDERS IN WOMEN 40-64 IN TEHRAN

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1. *Tarbiat Modares University*

2. *Alzahra University*

Abstract

The aim of this study was to investigation of effects of water exercise on physical and mental disorder in women 40-64 Tehran. Method: Among all women 40-64 in Tehran; after examination with random selection 150 women selected as statistical sample. Subjects performed water exercise along 2 months and 3 times at week. After and before training period; subjects completed Questionnaires about general health; cardiovascular; nutrition and mental condition. Data were analyzed with comparison of pre and post test results. Results: The results showed that water exercise positively affected rest heart rate and blood pressure; muscular endurance; strength and flexibility in subject's regular tasks. Loss weight was not observed following this exercise; but prevented weight gain. Severe depression and anxiety rate also significantly were reduced. Conclusion: water exercise can use as a suitable and effective exercise mode for middle age and older people.

Key words: *Water Exercise; Women; Physical Disorder; Mental Disorder*

THE INVESTIGATION OF THE ROLE OF MOTOR PROFICIENCY (MP) AND BODY MASS INDEX (BMI) IN PREDICTION OF GIRLS' LEVEL OF PHYSICAL ACTIVITY (PA)

Mahdieh Darini¹; Masoumeh Shojaei²; Afkham Daneshfar²

1. Islamic Azad University Karaj Branch

2. Alzahra University

Abstract

The purpose of this study was investigation of the role of motor proficiency (MP) and Body Mass Index (BMI) in prediction of girls' level of physical activity (PA). Therefore; 67 girls 9 years old were selected randomly. Their MP was measured by the Bruininks-Oseretsky test. Data of Habitual and organized PA and sedentary behavior were gathered respectively by pedometer and the organized PA and sedentary behavior questionnaires. Pearson and Spearman correlation coefficients and multivariate regression analyses were used to analyze data. The results indicated that the correlations between MP with habitual and organized PA were positive and significant ($p < .05$); but not with sedentary behavior ($p > .05$). There was a significant negative correlation between BMI with MP ($p < .05$). Furthermore; Only MP was a good predictor of girls' habitual PA. These results are important to program the interventions focused on motor skills development; which appears to be needed for increasing children's PA.

Key words: *Motor Proficiency; Body Mass Index; Physical Activity; Girls*

COMPARISON OF MENTAL SKILLS (FOUNDATION; PSYCHOSOMATIC AND COGNITIVE) IN ATHLETES PARTICIPATED IN I. R. IRAN PHYSICAL FITNESS AND AEROBIC NATIONAL CHAMPIONSHIPS 2010

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1. I.R.Iran Federation of Physical Fitness & Aerobic

2. Islamic Azad University Karaj Branch

Abstract

The main Objective of this research was to compare the mental skills profile Athletes participated in Physical Fitness and Aerobic National Championships on 2010 in Islamic Republic of Iran. The statistical population of this research consist of ten best teams- 421 athletes- were evaluated to determine mental profile; completed the Ottawa Mental Skills Assessment Tool “OMSAT-3 “that its significant in the first stages of the research is calculated with Alpha Kronbakh factor 0/878 . Collected dates were analyzed by inferential and descriptive methods; T- test was used; with a significance level of 5% and the bellow results were achieved:

- The average age of Physical Fitness athletes is $35/4 \pm 9/9$ years and The average age of aerobic athletes is $23/6 \pm 3/6$ years. The average sport record of Fitness athlete's is $10/4 \pm 6/9$ years and the average sport record of aerobic athlete's is $5/6 \pm 3/3$ years.
- Significant difference was reported between fitness and aerobic teams in their response to foundation skills.
- No significant difference was reported between fitness & aerobic teams in their response to psychosomatic skills.
- No significant difference was reported between fitness and aerobic teams in their response to cognitive skills.

Key words: *Mental skills; Profile; Athlete; Physical Fitness and Aerobic*

VALIDITY AND RELIABILITY OF BROCKPORT PHYSICAL FITNESS TESTS IN RETARDED PUPILS OF SECONDARY SCHOOLS IN TEHRAN

Hosein Pour Soltani; Hosein zareian

Abstract

Purpose: Validity and Reliability of Brockport Physical Fitness Tests in Retarded pupils of secondary schools in Tehran **Method:** Statistics research society (Population) was consist of Retarded pupils of secondary schools which were members of exceptional school. Number of 199 Retarded pupils in statistic research random – cluster sampling election is from exceptional school. Brockport physical tests including 540 meter running (cardiovascular endurance); Skin fold and body mass index (body composition); hanging with Straight and flexed arm; Bench press (power and muscle endurance upper trunk); Isometric push-ups; sit up corrected (abdominal muscle endurance); Power of finger of prevailing hand (power hand and radioulnar); Trunk elevation; Right and left shoulder extension; Flexibility of right and left back (flexibility). In content related validity; there are sets of Brockport tests which were used by 15 specialists. Results of correlation between experts are denoted content – related validity test ($r=0/8$) in evaluation of physical fitness factors are related to mental retarded pupils. Statistical methods in use calculation of validity and reliability were consisting of multivariable regression; simple and multi coefficient correlation. Also; percentile ranks were used in order to report norms of mark. **Finding:** Researchable finding showed that there is a relationship between elements of physical fitness and body composition as a predictive validity index in all of Brockport tests which have coefficient correlation with body composition ($P= 0/64$). Also the result showed that the most important predictive tests are based on intensity of relationship which includes bench press; hanging with Straight arm; Flexibility of left back; hanging with flexed arm; sit up corrected and 540 meter running.

Key words: *Brockport Physical Test; Mental Retarded; Validity; Reliability*

Motor Behavior

Poster Presentation

INVESTIGATION OF RELATIONSHIP BETWEEN FIVE DIMENSIONS OF PERSONALITY AND MENTAL HEALTH WITH INNOVATION IN PHYSICAL ACTIVITY AND AEROBIC COACHES

Mohammad Hosein Ansari; Habib Honari; Somaye Taklavi Varniab

Allame Tabatabai University

Abstract

The goal of current survey is to Investigation of relationship between five dimensions of personality and mental health with innovation in physical activity and aerobic coaches. The statistical set includes physical activity and aerobic coaches in Tehran and 30 coach was chosen as sample using cluster sampling. The data were collected using questionnaire; validity of which was evident by experts. The questionnaires constancy was evident using Kronbach Alpha coefficient. The results indicate a significant relationship between five dimensions of personality and innovation and a significant relationship between mental health and innovation in coaches.

Key words: *Five Dimensions of Personality; Mental Health; Innovation; Coach*

THE EFFECT OF 8 WEEKS RESISTANCE TRAINING ON BODY IMAGE AND ANXIETY ON UNTRAINED MALE STUDENT

Khaled Piri Kord; Farhad Rahmani Nia; Hamid Arazi; Kakou Hoseini

Abstract

The purpose of this study was to compare the effects of 8 weeks of weight training on body image and anxiety of untrained male students. 40 untrained male (age=22.28±1.92year; Height=178.85±5.5cm; weight=73.24±3.10kg) among untrained students selected and randomly divided into two groups of experimental (n=20) and control (n=20). All anthropometric measurement and performance records relate to 1 repetition maximum (1RM) of weight training in a season before of training program performed and the body image and anxiety questionnaires were complete. The period resistance training program consist of 8 weeks and with intensity in two first week 45% 1RM; three and four week 50% 1RM; five and sixth week 55% 1RM and in two last week's 60% 1RM. At the end of weight training program all participation performed and completed the measurement and questionnaires that assessed in pre test. The results of study that analyzed statistically with independent; dependence t (t-test) and Pierson correlation showed that 8 weeks of resistance training significantly increase muscular strength and hypertrophy and satisfaction of body image and reduce anxiety in experimental group; but none of the changes were significant in control group. The considerable physical changes results of resistance training such as significant increase in strength and muscle mass; because of positive effect of good self-theory and social acceptation; can be a importance reason for improvement in satisfaction of body image and reduce of anxiety. Because these changes are measurable; Positive physical changes (significant increase in strength; muscle mass and body fat percentage) could be increase psychological and physical health and finally may improve individual's health; that these results were supplied in this study ($p \leq 0.05$).

Key word: *Weight Training; Body Image; Anxiety; Strength and Hypertrophy Muscular*

A COMPARISON OF SENSATION SEEKING AMONG DIFFERENT GROUPS OF ATHLETES AND NON-ATHLETE STUDENTS

Mohammad Sayed Ahmadi; Fahimeh Keyvanlou; Mohsen Kooshan; Akbar Pajouhan

Abstract

The study investigated the differences in sensation seeking and its components between athletes and non-athletes students. Methods and materials: In this descriptive analytical study 160 students (80 athletic students and 80 non-athletic students) with average age of 22 years selected randomly from students of Azad University of Mashhad. Sensation Seeking Scale V (SSS; form V) developed by Zuckerman and cognitive questionnaire were used for data collection. The obtained data were analyzed in SPSS 15 using independent samples t-test. Finding: An important finding was that athletes scored higher than non-athletes. Conclusion: so we can lead sensational people to exiting sport to prevent of their crime.

Key words: *Sensation Seeking; Athlete; non-athlete Student*

THE COMPARISON OF SIMPLE AND CHOICE REACTION TIME BETWEEN ATHLETES AND NON-ATHLETES AT DIFFERENCE LEVELS OF BMI

Abdorrahman Khezri; Mahdi Shahbazi; Valiollah Kashani; Ali Pashabadi

Tehran University

Abstract

The aim of this study was to compare simple and choice reaction times for athletes and non-athletes at three levels of BMI. The sample population included male athlete and non-athlete students from University of Tehran. The 48 participants were divided into two groups of athletes and non-athletes.

After determining the levels of BMI; subjects were divided into three groups of lower; medium and high levels of BMI and then their reaction time was measured.

The results of T-test indicated that athletes had a shorter reaction time than non-athletes. Furthermore; the results of one-way ANOVA and Tokay's post hoc test showed that there was no significant difference between athletes of different levels of BMI in reaction time; but non-athletes with low level of BMI automatically had significantly shorter reaction times than other groups ($p=0.004$). The results of this study show that people with low BMI have a shorter reaction time.

Key words: *Simple and Choice Reaction; BMI; Athletes*

**EFFECT OF AEROBIC EXERCISE AND GROUP ACTIVITIES AND INDIVIDUAL
THREE OR SIX SESSIONS A WEEK ON ANXIETY REDUCTION OF ARAK
UNIVERSITY OF MALE STUDENTS**

Ahmad Mir Ashrafi; Ali Noshir

Abstract

The role of exercise and aerobic activities; reducing anxiety and did male students Arak Bulk and individual sports; three or six sessions per week is effective in reducing student anxiety? Population: All male students (12;000 students) University of Arak; sample: 40 patients with anxiety moderate purposefully selected and 10 were divided into four groups and the aerobic exercise group and individually addressed. Method: semi-empirical and dependent t test was used. Results significant relationship between anxiety reduction male students participated in three sessions of aerobic exercise per week group (16/3- t =) and individual (381/1-t =) be seen. The significant relationship between anxiety male students participated in aerobic exercise sessions per week to six groups (461/2- t =) and individual (89/2-t =) observed. The results of this theory showed that aerobic exercise and activity can reduce anxiety; to verify Mmy. The results of the investigations Starv (1986) and Mousavi et al (1387) are consistent; so it can be concluded exercise and aerobic activities play an important role in reducing student anxiety plays

Key words: *Aerobic Exercise; Anxiety; Arak*

THE COMPARISON OF MENTAL TOUGHNESS IN ATHLETE MEN AND WOMEN IN INDIVIDUAL CONTACT AND NON CONTACT SPORTS

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1. *University of Tehran Kish international Campu*

2. *Tehran University*

Abstract

Today; an optimal performance athlete; Result is a combination of different factors. Mental toughness as one of the most important psychological characteristics related to outcomes and success in elite sport; so that most coaches and sport psychologists; beliefs mental toughness is the most important psychological factor affecting the success of athletes. The aim of current study is The Comparison of Mental toughness in athlete men and women in individual contact and non contact sports. To determine sample size; first of all; a preliminary study were done with using 180 male and female athletes in the three individual contact sports ([Wushu](#); kickboxing; Taekwondo) And three non-contact sports (badminton; squash ;tennis). At the end; According to individual scores mean and variance; and use formula of determine sample size with p value 95% and with power test 80%; 300 athletes were selected as the study sample. The sport mental toughness questioner (SMTQ) was used to measure athletes mental toughness. Tow way ANOVA and Tukey post hoc test based on the significant level of alpha %5 were conducted for analyses Data. The results of this research indicated that; Main effect of gender; type of sport (contact and non-contact) were significant. However; interaction effects of gender and type of Sport; were not significant. The results of this research indicated that males scored significantly higher ($p < 0.05$) than females score in mental toughness; this finding along with Adam R et al (2009) results; These differences could be due to variations in the underlying expression of the attributes related to MT in males and females or; alternatively; to different socialization processes. Our results revealed that there were significant differences among athletes who participate in contact or non-contact sports; this finding along with GrayKhan and Jolierowy (2007) results; but not Adam R et al (2009) result. Possible causes of superior athletes that participate in contact sports than athletes who participate in non-contact sports must be searched in nature and philosophy of martial arts based on physical and psychological stress; In addition; experience violence in contact sports; spiritual person to stand difficult living conditions and exercise more robust returns. Mental toughness is having the natural or developed psychological edge that predicts Athletes success. Exposure hard conditions (competition; exercise) can Development MT. Various factors such as time situation; competitive experience; age; activity level; nature of sport and individual differences...have important roles In shaping and creating good mental skills; and need to Independent study.

Key words: *Mental Toughness; Contact and non Contact Sports; Women*

THE COMPARISON OF SPORT COMPETITION ANXIETY OF ATHLETES PARTICIPATING IN THE 2THS STUDENTS SPORT OLYMPIAD OF ISLAMIC AZAD UNIVERSITIES 9 REGION

Mohammad Sayed Amhadi; Fahimeh Keyvan lou; Mohsen koushanT Akbar Pajhan

Abstract

Anxiety is one of the negative aspects of excitement. The low amount of anxiety can be helpful in gaining achievement and extreme anxiety can be destructive. The purpose of study is the comparison of sport competition anxiety of athletes participating in the 2th students sport Olympiad of Islamic Azad Universities 9 region. 322 subjects (200 males and 122 females) were selected by systematic sampling. All subjects filled out sport competition anxiety test (SCAT) developed by martins and colleague in 1990 validity and reliability of this test were found 0%95 and 0%97 sequentially.

There were significant differences between sport competition anxieties of different fields. Karate players had the lowest degree of anxiety and the wrestlers and the football players had the highest degree of anxiety. Athletes of the individual and contact sport had a lower anxiety than athletes of group and non- contact sports ($p < 0/01$). Also results showed that a record of sport and exercise time reduce the amount of anxiety ($p < 0/05$). Finally; it could conclude that various factors can affect athletes; such as athletic record; duration of exercise; sex and kind of sport. So it needs the intelligence of coaches and supervisors of sport teams to concur the factors which produce anxiety.

Key words: *Sport Competition Anxiety; Sport Olympiad; Athletic*

A COMPARISON OF THE EFFECTS OF FEEDBACK FREQUENCY REDUCTION PROCEDURES ON CAPABILITY OF ERROR DETECTION & LEARNING FORCE PRODUCTION TASK

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2. Shahid Beheshti University

Abstract

The main purpose of this research was the comparison of the effect of feedback procedures (bandwidth; summary and faded) on the performance improvement and error detection capability of force production task. The subjects of research consisted of 36 non-athlete volunteer students with the average of 25.41 ± 1.6 age that were right-handed and were randomly divided in to three groups; including 10% bandwidth feedback; 5-trial summary feedback; and faded feedback. None of the subjects were aware of the research aim and had no previous experience in such a test. The necessary data for the present research was gathered in 4 phases: pretest; acquisition; retention and transfer. In pretest phase; the subjects were supposed to produce a force equivalent to 20% of maximum force in a 10-trial block. The acquisition phase consisted of seven 10-trial blocks in which 30% of maximum force in were used as a target force. In retention phase in the next 24 hours; production force procedure based on 30% of maximum force was used and in transfer phase; 40% of maximum force was used as the target force. In pretest; retention and transfer phases; 2 second after each trial; the subject was supposed to verbally estimate his force production. For Data analysis; one-way analysis of variance and one-way analysis of co-variance in significant level $P \leq 0.05$ for spss-11.5 software were used. Results revealed that there was no significant statistical difference in accuracy variable; consistency variable; and error estimation accuracy variable of production force in acquisition; retention and transfer phase in three kinds of these manipulations; and they (manipulations) led to the improvement of learning and error detection capability.

Key words: *Bandwidth Feedback; Summary Feedback; Faded Feedback; Accuracy; Consistency; Error Estimation Accuracy*

THE EFFECT OF AQUATIC TRAINING; MENTAL TRAINING AND CONCURRENT TRAINING (AQUATIC AND MENTAL TRAINING) ON BALANCE IN ELDERLY MALES

Sajjad Hoseini; Hosein Rostamkhani; Hamdollah Hadi

Islamic Azad University; Tabriz Branch

Abstract

Since balance maintenance is considered one of the indices determining aged people's independence; so examining and identifying the effective factors on balance changes to increase independence background in movement; to improve the immunity of components of daily physical activities and exercise movement; and to prevent injuries resulted from falling are examinable topic that researchers are interested in. The aim of this study was survey the effect of aquatic training; mental training and concurrent training (aquatic and mental training) on balance in elderly males. For this purpose; 120 elderly men (age $65/07 \pm 14/14$ Yr; weight $71/86 \pm 3/31$ Kg; height $173/2 \pm 3/57$ Cm) were selected and then classified in 4 groups randomly: balance aquatic training (n=30); mental training (n=30); concurrent (aquatic and mental training) (n=30) and a control group (n=30). For estimate subjects' balance; Y-Test was used in three directions. As regards group of balance aquatic training; aquatic training were done to increase the subjects' balance for six weeks; three sessions per week; and one hour per session according to pervious conducted studies. As regards group of mental training; this group did training for six weeks; three sessions per week; 15 minutes per session. For group of concurrent balance aquatic training and mental training; subjects did a combination of training of previous two groups for six weeks and three sessions per week and 1.5 hours per session. Also ability inquiry of Isaac & Mark imagination (1986); which measured subjects' inside and outside mental imagination; was used in order to evaluate the ability of mental imagination. Descriptive statistics was used to describe the subjects' personal characteristic; and for determining the significant difference between the effects of three different exercise methods; ANOVA statistical test and Toki post hoc test ($p \leq 0/05$) were applied. Significant difference is observed in reaching distance of experimental groups after applying exercise programs. In comparison of groups with each other based on the amounts of range; there was difference between reaching distance before and after applying training which presented exact size of the effects of training on balance; it is observed that in every three direction of Y-test the most increase in reaching distance after applying exercise programs belongs to group of concurrent training. Results of this study are in agreement with previous findings indicate a significant effect of exercise training courses on improving the balance. Potential reasons of increasing balance due to training include the increase in strength of subjects' lower limbs after participating in exercise programs; facilitation in the work of great; quick- contraction movement organs; increase in conformity of muscles; applying pressure on neuromuscular systems and the process of removing disinherit. According the results of this study it suggested that in designing fitness programs for seniors' special attention been aquatic and mental training.

Key words: *Balance; Aquatic Training; Mental Training; Elderly Males*

DETERMINE THE EFFECT OF A SELECTED AEROBIC ACTIVITY ON THE PSYCHOLOGICAL HEALTH IN HEMODIALYSIS PATIENTS

Fatemeh Rajabi; Mahdi Namazizadeh

Shahid Beheshti University

Abstract

The purpose of this study is to determine the effect of a selected aerobic activity on the psychological health in Hemodialysis Patients. We chose accidentally 20 women of these patients; between 15-35 years old. They were divided and matched in two groups as control and experimental. Their grade of psychological health. Before starting the selected aerobic activity; we got the two groups and psychological health test (SCL-90-R). They worked on ergometer bicycle for 2 months. After 2 months ending their aerobic activities; the 2 groups psychological health was tested by SCL-90-R in the same situation. Using the independent T-test for analyzing the results; we reaches these result: A significant difference was observed in the average of psychological health between control and experimental groups and aerobic activities effected the improvement of psychological helth in the experimental group. ($P<0.05$)

Key words: *Aerobic Activity; Psychological Health; Hemodialysis Patients*

THE COMPARISON OF MENTAL TOUGHNESS IN ATHLETE MEN AND WOMEN AT DIFFERENT LEVELS OF SKILL

Valiollah Kashani; Mansoureh Mokaberian; Ahmad Farokhi; Ebrahim Motashareei; Javad Afshari

Tehran University

Abstract

Today; an optimal performance athlete; Result is a combination of different factors.(1). Mental toughness as one of the most important psychological characteristics related to outcomes and success in elite sport; so that most coaches and sport psychologists; beliefs mental toughness is the most important psychological factor affecting the success of athletes.(2). The aim of current study is The Comparison of Mental toughness in athlete men and women in individual contact and non contact sports; at different levels of skill (novice; sub elite; elite).Methodology; the kind of this study is descriptive research. To determine sample size; first of all; a preliminary study was done with using 180 male and female athletes in three skill levels. At the end; According to individual scores mean and variance; and use formula of determine sample size with p value 95% and with power test 80%; 300 athletes were selected as the study sample. Tow way ANOV and Tukey post hoc test based on the significant level of alpha %5 were conducted for analyses Data. Data analysis was conducted with using statistical software version SPSS17.Results; The results of this research indicated that; Main effect of gender and different levels of skills were significant. However; interaction effects of gender and skill levels were not significant.

Key words: *Mental Toughness; Athlete Men and Women*

EFFECT OF EXERCISE ON ELECTED TARGETED HYPERACTIVITY DISORDER BOYS ELEMENTARY ARAK

ALIREZA BAHRAMY; ALI NOWSHIR; MAJID OJARRY

University of Arak

Abstract

Target impact exercise on (ADHD¹) students Arak. Statistical Society; all primary school pupils in the school year Arak 89-1388 had to study employment. Sample; 60 purposefully selected and after the implementation of pre-test; the subjects randomly into three groups of 20 people Fayt combat sports and soccer and sports activities were divided into control. Two experimental groups 8 weeks and three sessions a week under coach paid professional activity; then the test was taken. Data collection tools; morbid symptoms questionnaire based on children's CSI DSM diagnostic criteria is codification. Statistical method; descriptive statistics for the distribution; abundance; mean; standard deviation and t test were used. Results; combat sports and soccer activities on reducing hyperactivity disorder had a significant impact; but the retention period of combat activity was more stable. Discussion; Kim (2002) in their study received; taekwondo and karate the most enjoyable sports for children and baseball went to number for these children is a nightmare; also; is recommended; appropriate exercise to reduce hyperactivity disorder should be used. So one of the ways that psychiatrists can provide regular and ongoing participation in sports activities is under expert instructors.

Key words: *Exercise; Hyperactivity Disorder; Arak*

¹. Attention deficit hyperactivity disorder

THE COMPARISON OF PERFECTIONISM AND CHRONIC FATIGUE BETWEEN ATHLETE MEN AND NON ATHLETE- MEN

Mohammad Narimani; Sajjad Bashar Pour; Abdollah Ghasem Pour

Mohagheghe Ardebili University

Abstract

This research has been performed to compare perfectionism and chronic fatigue between athlete men and non -athlete men and also to investigate relationship between these variables. Statistical society of this research comprised total of 156 male athletes of the tackti stadium of Uremia Township. 40 athlete men were selected randomly as a study group and 40 non athlete men were selected as a comparison group by this sampling. Both two groups were matched together in demographic characteristics like age; education. Participants were tested individually by scales of perfectionism and chronic fatigue. The results of multivariate variance (MANOVA) showed that there was no significant difference in positive perfectionism and chronic fatigue between those two groups. But there was significant difference in negative perfectionism fatigue between those two groups. The results of Pearson correlation test showed that Positive perfectionism negatively related to chronic fatigue ($P<0/01$; $r= -0/45$); but negative perfectionism were positively related to chronic fatigue. ($P<0/01$; $r =0/42$). The result of regression analysis showed that about %40 of chronic fatigue variance was predicted by positive and negative perfectionism.

Key words: *Athlete; Chronic Fatigue; Perfectionism*

FRIENDSHIP QUALITY IN ADOLESCENT AEROBICS ATHLETES IN KERMANSHAH: ASSOCIATIONS TO PERCEIVED MOTIVATIONAL CLIMATE & SPORT ORIENTATION

Sara Karbalaefifar; Farzad Azimi; Bahram Yousefi; Sanaz Tanha

Abstract

The aim of this study was to examine the relationship between the perceived motivational climate; sport orientation and indices of friendship quality in a sample of young male and female aerobic athletes. The sample consisted of 120 aerobic athletes participating in the youth competition. Correlation analyses revealed that young female aerobic athletes who perceived the motivational climate as predominantly mastery oriented; and who were predominantly goal oriented in sport orientation; reported better relations with their friends in sport they scored positively on companionship; loyalty with their best friend in sport; they perceived this friend as being loyal and of allowing free discussion; and they reported being supported by their friends in sport. Mirroring these findings; young male aerobic athletes who perceived the motivational climate as predominantly performance oriented; who scored high in competitiveness and win oriented; reported negative relationships with their friends in terms of these aspects. They also reported being in conflict with their best friend.

Key words: *Aerobics; Athletes; Kermanshah*

THE EFFECT OF REGULAR PHYSICAL ACTIVITY ON MENTAL HEALTH IN MALE AND FEMALE UNIVERSITY STUDENTS

Mohammad Ali Nodehi; Mojtaba Ahmadi; Mohammad Taghi Khorand

Abstract

The aim of this study was to survey the effect of regular physical activity on mental Health in male and female University students. The statistical population consists of all male and female students of Bandargaz Azad University; that 200 subjects were selected as sample in this study. The GHQ-28 questionnaire was used to measure 4 sub- factors physical health; anxiety; sleep disorder; social efficiency and depression if general health. The reliability of this questionnaire has been determined in more than 70 countries (%82-%92). Descriptive analysis used to describe the data and Spearman coefficient used to analysis the findings ($p < .05$).

The results of this study showed significant difference in total mental health sub- scales (physical health; anxiety; sleep disorder; social efficiency and depression) between athletes and non-athletes university students ($p \leq 0/05$).

This study showed that participation in regular physical activity has benefit effects on mental health of male and female university students. It is clear that mental health has good effects on educational goals in universities. So these findings suggest that it is important to have enough attention to students physical activity.

Key words: *Mental Health; Sport; Physical Activity; Athlete Student; non-athlete Student*

EFFECT OF SELECTIVE PHYSICAL TRAINING ON PSYCOLOGICAL FITNESS

Mohammad Taghi Khorand

University of Golestan

Abstract

Achieving and maintaining mental fitness and that; on all aspects of life influences. In addition to strengthening health; increase work efficiency is also effective. What this research has been studied; the relationship between physical exercise and psychological fitness is selected. Due to lack of consistent results; the need for further research and studies in this area is felt. For example; M; Gvdak et al (1996); concluded that the connection between mental fitness and there are adults while Sajyv and colleagues came to the opposite conclusion. In this study; physical fitness test (agility 4×9; sit on a minute; Barfiks; both 45 m speed; vertical jump; and both Sergeant 1600 m) and mental readiness test (questionnaire SASI) as a research tool used was. Statistical Society of the research students from 180 high school athletes and untrained formed city of Gorgan. After collecting data; Spearman correlation coefficient test to check this relationship was based on assumptions that the results of this study are as follows: 1_ between physical fitness and mental preparedness boys team and individual athletic fields there are significant differences. 2_ between physical fitness and mental preparedness boys soccer and basketball fields; there is no significant difference. 3_ between physical fitness and mental preparation untrained male students there is no significant difference. According to the results; the need for planning and special attention to the expansion of physical activities to promote mental health is recommended.

Key words: *Physical Training selected; Mental Preparation; Student*

THE EFFECT OF MUSIC ON PSYCHOLOGICAL FACTORS IN AEROBIC PERFORMANCE OF A GRUP OF WOMAN ATHLETIC IN MASHHAD GYMNASIUM

Bitá Bordbar

Abstract

The purpose of this study was to exam the effect of music on woman psychological such as (depression; anxiety and aggression) in aerobic. A survey was done on 30 athletic who do aerobic and 30 athletic who do not aerobic. The control group and the test group were in the same training condition and place .the tools of gathering data were questionnaires. for analyzing data and comparing variables between the 2 groups; the comparative exam” Mann-Whitney-U” and for comparing after exam the parametric statistic exam “ Wilcox on” were uses . There was no significant difference in two parameters of anxiety and aggression in both control group and test group ($P \geq 0/05$) but a significant difference of depression was observed. $P = 0/008$; Mann-Whitney-U =280

The result confirmed the theories of this research and shows that music can have effect on in indicator of “Depression” in women and doesn’t have direct effect on Anxiety and Aggression.

Key words: *Aerobic; Depression; Anxiety; Aggression*

CARDIAC REHABILITATION PROGRAM (AEROBIC) AND QUALITY OF LIFE IN CARDIAC PATIENTS

Morad Jorgeh; Majid Gorgeh; Farzad Nazem; Ali Yelfani

Abstract

Cardiac rehabilitation is the effective method to improve quality of life; especially in heart disease. The purpose of this study was to determine the effect of cardiac rehabilitation programs on the quality of life of patients who had undergone coronary artery bypass grafting in Iran.

Six weeks after CABG 60 patients (46 male and 14 female) participated in an 12-week cardiac rehabilitation program that consisted of formal supervised exercise training and educational sessions in shahid beheshti rehabilitation center of hamedan . Quality life after mi questionnaire was instrument for collecting data in the present study.

Results: significant improvements were noted in the quality of life ($P<0.05$) and its components after the cardiac rehabilitation program: physical function ($P<0.05$); ; social function; and emotional function ($P<0.05$). Also no significant differences found between men and women in quality of life and components at baseline and after 12 weeks($P>0.05$). These findings suggest that cardiac rehabilitation may be an effective therapy for improve quality of life in patients with problems after CABG.

Key Words: *Cardiac Rehabilitation Program; Coronary Artery Bypass Graft Surgery; Quality of Life*

A CONSIDERATION OF MORNING EXERCISE IMPACT UPON MENTAL HEALTH OF MALE AND FEMALE HIGH SCHOOL STUDENTS IN DISTRICT 1 IN ZANJAN CITY (2008-2009)

Abolfazl Farahani¹; Shahram Eskandari Pour²; Akbar Heidary¹; Mansur Moradlu³; Ali Hamed³

1. Tehran University

2. Tarbiat Moalem University

3. Zanzan University

Abstract

The purpose of the present research is to consider the morning workout effect on psychological health of both male and female students in district 1 in Zanzan. In doing so, four classes including two female and two male classes were selected at simple random base. Then, each of related classes was assigned as either experimental or control group. To test the mental health, we administered GHQ 28 questionnaire. Subsequently, the experimental group (one male, one female) undertook morning exercise for four weeks. The T-test results indicated a significant difference among four groups. Meanwhile, boys were mentally healthier than girls in experimental groups.

Key words: *Morning Exercise; GHQ 28; Mental Health*

SEARCH THE RELATIONSHIP SATISFACTION AND THE ELDERLY WALK

Ahmad Heydari; Siamak Takash; Ebrahim Banitalebi; Mahdi Maghami

Abstract

Study the relationship between walking and elderly satisfaction is assessed. Transparency to the relationship between the effects of walking and training methods were used separately. Accidentally an experimental group versus a control group investigated are. Experimental group a walk older free and as a group; but the other group; two walk in a gym was. Participants 12 elderly people between the ages of 47 to 74 years for a two-month walk volunteered. results very active physical activity (energy) to the least active (tired; drowsy) disgruntle very active (angry) to enable good-natured little (slowly; with dignity) was used. In terms of assessment (EA) and (TA) is EA has been shown 5;10;15. EA than in all minutes walking time. But at the time of EA 10 to break down Trust. During walking; the happiness and excitement during walking; freshness and vitality; and its surface is more than the main axis is higher. Happiness and excitement rapidly rising compared to walking group (2) under rest and more than 15 minutes. It is recommended that one should exercise and hardly have to push.

Key words: *Walk; Elderly; Depression; Vitality*

THE EFFECTS OF AEROBIC EXERCISES ON SELF-CONFIRMING AND HAPPINESS AND ITS RELATIONSHIP WITH DEMOGRAPHIC CHARACTERISTICS OF NON- ATHLETE FEMALE

Zahra Rismanbaf; Najmeh Afsheh; Zahra Mardas

Islamic Azad University; Dezfool Branch

Abstract

This study investigated the effect of eight weeks aerobic exercise in self-confirming and happiness and its relationship with age; education and employment status of non- athlete females of Dezful city(a city in south of Iran). The sample consisted of sixty women that were selected by randomly stratified method from non-athletic females whom registered in aerobic sports clubs in Dezful city. Pre -test was used to them before starting practice; then they participated in aerobic exercise for 8 weeks and three sessions of 60 minutes per week and after eight weeks post-test were taken. Self-confirming questionnaire by Ratus and Oxford; Happiness questionnaire which reliability and validity were confirmed was used. The data were analyzed via dependent t- test; MONOVA and multiple correlation coefficients. Testing the proposed hypothesis at $p \leq 0/05$ showed that there was a significant difference between scores groups regarding self-confirming and happiness; before and after aerobic exercise. Women self-confirming and happiness increased after eight weeks aerobic exercises; without any relationship with their age; education and employment status. Thus; it is strongly suggested to all society people; particularly women for preventing mental and psycho disorders actively attend in various activity even simple walking.

Key words: Aerobic; Self-confirming; Happiness; non-athlete Women

RELATION BETWEEN THE COMPONENT OF BODY FITNESS AND HAPPINESS AND LIFE QUALITY OF NEYSHABURE AZAD UNIVERSITY GIRL STUDENT

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1. Islamic Azad University Neyshabur Branch

2. Islamic Azad University Mashhad Branch

Abstrac

Today life quality is index of social development .this index includes the most important different factors that determine conditions of life in society and personal ease of life .For the development of society all factors of life quality should be promoted one by one on that. So; the determination of significant life quality factors & the ways of promotion are the necessities of society development. One of the effective factors in life quality is body fitness.So; this paper aims to examine the relation between components of body fitness and life quality of Azad University Neyshabure girl student.

Methodology: this study is descriptive field research the population of the research includes all the female student of Azad University of Neyshabure (a total of 2745female student). One hundred students who had taken physical education I were chosen as the participants through random sampling. Physical fitness was divided in different categories; each of which was measured through different tests as below. Cardiovascular endurance was measured by Step Strand test; body composition was measured through measuring dermal fat by caliper; abdomen muscles endurance was measured through sit-up exercise. Furthermore; flexibility; upper body (shoulders; forearms and chest) muscles; agility; legs' strength and speed were measured by flexibility test; push-up; 4xa jump; 36meter sprint; respectively. Moreover; quality of life questionnaire (SF=36). The reliability of the questionnaire was measured by Cronbakh test at R=87%. Data were analysed through Pearson correlation coefficient and multiple regression analysis. Correlation matrix between component of body fitness & life quality

Findings/discussion: the finding of this research have been shown that through the different component of body fitness just we have significant relation between muscles endurance of hands & quality life and we don't have any relation between the other component and quality life. These results have contradiction with the Koltin research findings (2001). Also the findings of Vuillemina (2005). On the other hand ; research findings with Brownand (2004) who have found that however the positive effects of regular body activity have been accepted but the relation between the rate of body activity and life quality is unknown. So; because different result have been shown in these activity ;its necessary to research more in this topic.

Key words: *Physical Fitness; Quality of Life; Girls; Neyshabur*

ASSESSMENT AND COMPARISON OF SLEEP DISORDER; DEPRESSION AND SOCIAL FUNCTION NON_ATHLETES FEMALE STUDENTS AND THE FEMALE STUDENTS OF PHYSICAL FITNESS

Marziyeh Khalife Soltani¹; Habib Honari²

1. *University of Sistan and Balouchestan*

2. *Allameh Tabatabai University*

Abstract

In This research was carried out to assessment and comparison of sleep disorder; depression and social function Non_Athletes female students and the female students of physical fitness. The specific population for the research was the all female students of university Sistan and Baluchestan. 100 questionnaire published among female students physical fitness; also 100 questionnaires published among female students Non_Athletes. We used the standardized questionnaire general health (GHQ) that includes 28 questions. After data were collected; spearman and U – Mann – Whitney tests in level of $p \leq 0.05$ were used.

Results of this study showed that ; there were a significant different between physical health ; sleep disorder ; depression and social function Non_Athletes female and the female of physical fitness ($P \leq 0.01$). There were a significant relationship between general health female Athletes with time of sport activities ($r = 0.62$).

Results of this study showed that; all indexes about Athletes female were better than female Non_Athletes and with increasing sport activities female Athletes had a better general health.

Key words: *Sleep Disorder; Depression and Social Function; Physical Fitness; Student*

Sport Medicine

Oral Presentation

DANGEROUS EXERCISES

Hassan Daneshmandi

Guilan University

Abstract

Research has shown that many exercises are contraindicated and may do more harm than benefits. Many of the warm-up exercises we practiced each day have now found to be dangerous. While different levels of athletics do have different levels of stretching; it is necessary to know what the dangerous exercises are and how to use safer alternatives. Certain exercises are too risky and should not be performed at all. Exercises must be performed in certain ways and if performed incorrectly can cause injury. Almost any exercise can be potentially dangerous if performed with poor alignment and improper technique. The most vulnerable areas are the neck; the knees; and the back. The limitations of an exercise program should be customized for each individual; not the general population as some exercise professionals have proposed. The individual's goals; medical history; orthopedic health; etc. as well as the limitations of the exercise professional's knowledge need to be considered. Obviously; certain exercises may be considered contraindicative for some people; at least until particular injuries and biomechanical deficiencies are corrected and the principles of specific adaptation can be observed. There are some general principles which can help to determine the safety and effectiveness of an exercise. Avoid the following general practices to ensure safe exercises. **Do NOT:**

- 1- **Bounce** - All movements should be performed slowly. If you use quick; jerking motions to stretch; you can tear muscles; tendons; or ligaments.
- 2- **Lock or Hyperextend** - Locking the knees or elbows; will over stress these joints.
- 3- **Perform Fast Exercises** - Abrupt contractions cause tightening of muscles and do not strengthen the muscle correctly or help the muscle gain the ability to act in a slow sustained manner.
- 4- **Swing** - Swinging motions use momentum not muscle; similar to a bounce. This can tear muscle fiber.
- 5- **Overbend a Joint** - The range of safe motion for the knee and elbow is limited.
- 6- **Arch the Low Back or Neck** - Hyperextension of the back or neck can damage the spine.
- 7- **Rotational movements** – All movements performed in more one plane and even diagonal plane. Avoid grinding movement in knee joint and neck.

Therefore the aim of this review article is discussed about some of these routine exercises which usually performed in sport for all and for elders people. Coaches and players can use these information for preventing and reducing injuries.

HOW TO PREVENT CHILDREN FROM AEROBIC AND PHYSICAL FITNESS INJURIES

Mohammad Hossein Alizadeh

Tehran University

Abstract

Aerobics and fitness involve the movement of large muscle groups in continuous rhythmic activity to music. It has many benefits for different groups as well as children. Aerobics is associated with a significant number of injuries and its injuries generally fall into traumatic and overuse injuries. Traumatic injuries occur as a result of a fall; twist or similar accident and most often involve the ankle or knee. Overuse injuries usually develop gradually often as a result of a change in the amount or intensity of aerobics; or due to a training error. Shin pain is the most common overuse injury; while foot and knee overuse injuries are also common. By knowing the causes of aerobic injuries and how to prevent them; you can help prevent your child from being injured by following some simple guidelines and provide a positive experience in their activity.

Kids can be particularly susceptible to aerobic injuries for a variety of reasons. Kids; particularly those younger than 8 years old; are less coordinated and have slower reaction times than adults because they are still growing and developing. In addition; kids mature at different rates. Often there's a substantial difference in height and weight between kids of the same age. When kids of varying sizes play aerobic together; there may be an increased risk of injury. As kids grow bigger and stronger; the potential for injury increases; largely because of the amount of force involved. Suitable coach who has been trained in first aid and CPR should have a plan for responding to emergencies. Coaches should be well versed in the proper use of equipment; and should enforce rules on equipment use. Coach can also ask the children to obey the rules of the aerobic.

Injury can be prevented by using the right techniques and equipment. Seek advice from your instructor about how to improve or correct your technique if you have injuries that may be related to poor technique. The risk of aerobic injury can be minimized by matching children to the aerobic and not push them too hard into an activity that he or she may not like or be capable of doing. It is also important to ask the children to wear appropriate protective gear and find how to use aerobic equipment. Wear footwear specifically designed for aerobics. Good fit; stability; secure lacing and good forefoot cushioning are important features of an aerobics shoe. Choose clothing that fits well and has good moisture transfer properties.

Another important factor is conditioning. Being in proper physical condition to play aerobic may result in developing the strength and endurance of heart and lungs. It is recommended to get a pre-season physical examination and always avoid aerobic. Proper warming-up and cooling-down exercises may reduce the risk injuries. Warm ups and cool downs should be a part of your child's routine before and after aerobic participation. Warm up exercises; such as stretching and light jogging; minimize the chance of muscle strain or other soft tissue injury during aerobic. When the kids are very tired or in pain don't push them to aerobic exercises. Have a

musculoskeletal assessment performed by a sports medicine professional before commencing aerobics when you have suffered an injury in the past. It is important to take care of injuries as soon as they happen. Sufficient rest after an injury for some overuse injuries is very crucial because children are allowed to resume sports activity too soon. A physician should evaluate any sports injury. Ignoring the problem may turn it into a more serious injury. With proper treatment and rest; the athlete usually can continue participating through the season.

Encourage the kids to take adequate water or other liquids to maintain proper hydration. Make sure they have access to water or a sports drink while playing. Ask him or her to drink frequently and stay properly hydrated.. Check the environment by controlling the temperature in the aerobics area with a moderate level; and good ventilation.

THE RATE AND NATURE OF WOMEN INJURIES IN AEROBICS

Fershteh Kazemi; Vahid Zolaktaf; Gholam Ali Ghasemi

Abstract

International competitions of aerobics are held annually. Athletes of more than 40 countries participate in these competitions. This sport is rapidly expanding in Iran. The purpose of this research is to find out the rate and nature of sport injuries in Iranian athletes of aerobics. This is a survey done by structured interview. Interviews were conducted using a modified version of standard questionnaire of "Aerobics Pathology". The sample included 40 performers (aged 23±5 years) from 5 provincial teams selected by cluster convenient sampling. Annually; 70% of athletes had 1; 2; or 3 injuries. The rate of injury was 1 injury in 1000 hours of practice. The most prevalent sites of injuries included knee 36%; shin 19%; ankle 15%; and back 13%. Injury types consisted of chronic 51%; sprain 18%; cramp 10% and strain 8%. Our data suggests that for many athletes exercise time exceeds their stamina. Consecutively; the main cause of injuries is probably overused. It could lead to too much fatigue and increase the chance for technique error.

Key words: *Aerobics; Injury; Aerobics Injury*

EFFECT OF CORRECTIVE EXERCISES ON INTENSITY OF CHRONIC NECK PAIN AND RANGE OF MOTION OF CERVICAL VERTEBRAE FOR 30 UP TO 50 YEARS OLD WOMEN IN ALBORZE PROVINCE

Marzieh Mosadeghi; Yahya Sokhangouee; Alireza Rahimi

Abstract

The purpose of present study is about effect of one periode of corrective exercises (treatment) on intensity of chronic neck pain and range of motion of cervical vertebrae for 30 up to 50 years old women who have chronic neck pain in Alborze province. This pattern had 36 women who had chronic neck pain. they were in 3 group: Normal posture; forward head posture and kyphosis posture. They referred to some of Alborze province hospitals. Evaluation of spinal column abnormalities was done by checkered plate and flexible ruler. by use of flexibility tests; (ROM) range of motion neck spinal column was evaluated and for evaluation of pain intensity; Visual Analogue Rating scale (VAS) was done for searchings. For the purpose of study; about corrective exercises on pain intensity of chosen people who have had chronic neck pain; improvement exercises delivered. These exercises were special to neck pain and they did for 12 session. Two group of forward head and kyphosis had improvement exercises related to abnormalities. study findings showed that corrective exercises will make pain intensity reduction in this 3 group and pain intensity reduction will happen after examination in comparison to before examination; It leads to improvement in range of motion in cervical vertebrae in 3 group ($p < 0.01$). Among 3 groups pain intensity reduction won't have meaningful difference before and after examination ($p < 0.01$). Doing one periode of corrective exercises will make meaningful difference in kyphosis group and forward head problems ($p < 0.01$); so this abnormal condition will improve. So we concluded that a mixture of Isometric; Isotonic; neck and bend shoulder improvements will reduce pain intensity; it is probability for increasing in musculature power; beads movement; improvement in range of motion; improvement in sending blood and metabolism. These exercises will effect on 3 group; because power and muscle flexibility and beads movement will increase. Doing corrective Exercises will influence on flexibility of extensor muscle of waist-back and muscle power will increase; also spinal column condition will improve; which is important in kyphosis abnormal improvement. These exercises will increase power and neck beads musculature flexibility and will reduce distance of head back from wall; also it will improve the posture of locating head on beads which is important in treatment of forward head abnormalities.

Key words: *Corrective Exercises; Chronic Neck Pain; Rang of Motion; Cervical Vertebrae*

THE STUDY OF CAUSES AND MECHANISM OF THE ACL INJURIES IN THE IRANIAN PROFESSIONAL SOCCER PLAYERS

Hamed Tarmah; Nader Rahnama; Khalil Khayam Bashi; Shadi Moafi

Isfahan University

Abstract

Soccer is one of the most popular and high risk sports around the world. The highest number of injuries in this sport occurs in knee joint and anterior cruciate ligament (ACL). The aim of this study was to examine the causes and mechanism of ACL injuries among the Iranian professional soccer player. Fifteen professional soccer players (age: $25\pm 3.48y$; height: $179.13\pm 4.61cm$; weight: $72.6\pm 4.43kg$) who suffered from ACL injury were studied. Information was collected via watching the video of the matches and interviewing with the team physicians and studying the medical files and reports. The result of this study showed that the number of non-contact injuries (73.3%) was significantly more than contact (26.7%) injuries ($P<0.05$) and most of injuries were occurred in the dominant leg. Regarding the severity of the injuries; most of them were severe and needed surgery ($P<0.05$). Although the number of injuries during the match was greater than practice but the differences was not significant. The main causes of non-contact injuries was a sudden change in direction ($P<0.05$). Most of injuries occurred in the away matches ($P<0.05$) and in the end of the competition season. No significant differences were found between playing positions. It is noteworthy that most of the injuries occurred during the second half of the match and during 61-75 minutes ($P<0.05$). It can be concluded that most of the ACL injuries are non-contact and sudden change in direction is main causes of injury. This information can be used in planning preventive programs.

Key words: *Anterior Cruciate Ligament; Video Analysis; Injury; Professional Player*

EFFECT OF SELECTED EXERCISE (AEROBICS AND RESISTANCE) ON SOME OF IMMUNE SYSTEM FACTORS IN MALE PATIENTS WITH MULTIPLE SCLEROSIS

Nikou Khosravi; Parvaneh Nazarali; Nasrin Maghsoudi

Alzahra University

Abstract

The purpose of this study was to evaluate the effects of selected training on some of immune factors consisted of proinflammatory (IFN γ &TNF α) ; anti-inflammatory cytokine(IL-10) and CRP in male patients with multiple sclerosis. Thirteen male with MS volunteered to participate in this study included 8 individual in exercise group (with mean age $01/6 \pm 7/32$ years ; height $9 \pm 3/ 176$ cm ; weight $6/7 \pm 8/70$ kg) and 5 individual in control group (with mean age $1/3 \pm 2/26$ years; height/ $16947/9 \pm$ cm; weight $13 \pm 2/65$ kg). Selective training programs; consisted of aerobics;resistance and stretching training that was doing 3 days a weeks uncontinuously. Data were analyzed by using a descriptive statistics and co-variance analysis ; Repeated Measures ANOVA and the Bonferony post hoc test at Statistical significance $p < 0/05$. The results indicate that a reduction in serum IL-10) $P = 0/029$ (resting concentrations significantly in experimental group in comparison with control group. regarded to various TNF α ;There were no differences significantly between experimental group and control group($p > 0.05$).various IFN γ decreased in both control and exercise groups. CRP mean changes timing were no significant in both control and exercise group($p > 0.05$). The result showed that selected training improved disability in patients and producted variation in cytokines males patient.

Key words: *Immune System; Multiple Sclerosis; Physical Activity*

THE EFFECT OF AQUATIC AEROBIC TRAINING ON SOME OF CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH MS

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Ahmad Zendedel²

1. Islamic Azad University Mashhad branch

2. Islamic Azad University Neyshabure branch

Abstract

Multiple Sclerosis is a disease of central nerve system which involves brain and spinal cord. The most common complications of MS are fatigue; Muscle cramps; Chills; squint; imbalance and gait disorders. Purpose of this study was investigating the effect of aquatic aerobic exercise for 8 weeks on the some of cardiovascular risk factors in female MS patients. Materials & Methods: In this quasi-experimental study; 40 female MS patients on the basis of illness degree and age range were allocated randomly into 2 groups. The average period of the disease was (4-1) and age range was between 20-50 years. They were divided in one experimental group (20 people) and one control group (20 people) . The experimental group participated in the exercise program for 8 weeks; each week three sessions with intensity of 40-50 percent of the maximum heart rate. Measure the cardiovascular risk factors in experimental and controlled groups before and after exercise. The gathering data analyzed by independent t and paired t test. Results: after the exercise the experimental group have significant decrease in LDL; HDL; TC.TG; Hematocrit .also; do aerobic exercises in water can cause HDL for experimental group. Conclusion: Considering the results of this research; which has caused in an decrease in the some of cardiovascular risk factors MS patients; so it seems necessary to apply an aquatic exercise for such patients? So; it is recommended to specialists to use these trainings as a supplementary treatment besides medical treatments for MS patients.

Key Words: *Multiple Sclerosis; Aquatic Exercise; Cardiovascular Risk Factors*

THE EFFECT OF THE AEROBIC SELECTED EXERCISE IN WATER ON THE CORTISOL LEVEL; IL10; IL6 AND TGF β IN THE PATIENTS WITH MULTIPLE SCLEROSIS

Samaneh Pakzadnia; Saleheh Noor Nematollahi; Sayed Mahmoud Hejazi; Mahmoud Soltani

Islamic Azad University; Mashhad Branch

Abstract

Multiple sclerosis or M.S. is a chronic and nervous system enabler disease; which damages the central nerve system myelin (brain and Spinal cord). The most prevalent symptoms are fatigue; spasm; tremor; squint; imbalance and walking disorder. The purpose of this research is to investigate the effect of the aerobic selected exercise in water on the Cortisol level; IL-10; IL-6 and TGF B in the serum of the female patients with M.S.

The research type is the practical and the research method is the semi-empirical. Thus it was selected 30 individuals as the sample out of 120 female patient with M.S. which they had a disease degree 1 to 4 with the disease duration average of 5 years and the age average 20 to 50 years; and randomly they were split to the experimental group and the control group which each were 15 individuals. The exercise program was implemented to the experimental group with the intensity of 50 to 60 percents of the maximum heart-beat; Due to investigate the bridling factors of immune system; was sent the examinables blood samples; before and after exercise to the special laboratory after to specify the data normality; was performed; their analysis using the descriptive statistics and the dependent and independent t test. Results: It is obtained the significant difference on the Cortisol level in the examinables of the experimental group after and before the exercise. It is not detained significant difference on the examinable TGF β ($p=0.271$); IL10 ($p=0.167$); and IL6 ($p=2/824$) level. Although; we observed the changes with the measured variables; but these changes were not significant. The lack of significant of the variables can be because of the low statistics samples; low duration exercising program and the cytokines changes amplitude.

Key Words: *Aerobic Selected Exercise in Water; Multiple Sclerosis; Cortisol; IL10; IL6*

THE EFFECT 12 WEEKS FUNCTIONAL TRAINING PROGRAM ON DYNAMIC AND STATIC BALANCE IN HEALTHY OLDER WOMEN

Parastoo Noori; Behnam Ghasemi; Akbar Azamian Jazi

Shahrekord University

Abstract

This study aimed to examine the effect of a functional training program on dynamic and static balance of healthy older women. Materials and Methods: Thirty healthy older women participated in this study who selected purposely and divided in two control and experiment groups. Was a follows: in control was; mean of age $73/72 \pm 2/4$; the mean of height $156 \pm 7/4$; the mean of weight $67/27 \pm 3/62$ and the mean of BMI was $29/4 \pm 1/52$. However in the experiment group as follows: the mean of age $71/1 \pm 1/9$; the mean of height $151 \pm 2/5$; the mean of weight $65/27 \pm 3/5$ and the mean of BMI $27/7 \pm 1/03$. The dynamic balance was measured with functional test (TUG) before and after the period of functional training program. The control group followed their daily activity but the experimental group did a functional training program for 12 weeks. Descriptive statistics; t-test for independent samples and paired sample t-test ($P \leq 0.05$) applied for statistical analysis. Results: There was significant changing in dynamic in balance in the control group after 12 weeks. while experimental group; showed a significant decreased in time TUG test; and increased in sharpened test after 12 weeks functional training .Finally; the meaningful decreasing was seen between two group that it indicate the increasing in dynamic and static balance of experimental group .Conclusion: The result of this study suggests the effect of functional training on dynamic balance among women.

Key Words: *Dynamic Balance; Functional Training; Older omen*

THE RATIOS OF LOCAL AND GLOBAL ABDOMINAL MUSCLES ACTIVITY DURING SUPINE BRIDGING STABILIZATION EXERCISE

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1. *Guilan University*

2. *Bahonar University of Kerman*

Abstract

The aim of this study was to evaluate the relative muscle activity and the ratios of local and global abdominal muscles activity during supine bridging stabilization exercise on stable and unstable surface. Methods: 12 non-athlete females (mean age; 21.72±1.73 yrs; height; 162.81±2.98 cm; weight; 58.03±4.02 kg; BMI; 21.65±1.54 kg/m²) were selected randomly who has no low back pain and regular exercise training. The subjects performed supine bridge exercise in either position A) on the matt with flexed knee and feet on the ground; B) on Swiss ball; legs on the ball and upper body on a bench as height as ball; C) on the Swiss ball with flexed knee and feet on the ball; D) on the Swiss ball and legs on the ball; E) on the matt with extended right knee; and/or F) on the matt with extended left knee. Surface electromyography (SEMG) activity of Rectus Abdominis (RA); External Oblique (EO); and Internal Oblique/Transverse Abdominis (IO/TA) muscles on the right side of the core were recorded; and normalized to maximum voluntary isometric contraction (MVIC). All data were analyzed using ANOVA with repeated measures and bonferroni post-hoc test at p<0.05 level. Results: The ratios of local and global abdominal muscles activity (IO-TA/RA and IO-TA/EO) in all exercises were higher than 1. Discussion: Generally; performing supine bridging stabilization exercise harder; more useful can be obtain for restoring correct abdominal muscle contraction patterns; specially local muscles. These findings support this idea that supine bridging stabilization exercise on different surface; different local to global muscle ratios are contributed in vertebra posture control with same manner.

Key Words: *Muscle activity; Global and Local muscle; Stabilization exercise; Supine bridging*

COMPARISON EFFECTS OF CORRECTIVE EXERCISE ON LAND AND IN WATER ON KYPHOTIC GIRLS

Yahya Sokhangouee; Sayedeh Khadije Asri Saravi; Milad Pirali

Abstract

The aim of the present study was to compare the effects of a 4-week corrective exercise program on land and in water on the some selected parameters related to Kyphosis in kyphotic girls. After sampling and diagnosing; 20 kyphotic girls at the Islamic Azad University; were selected. The subjects were randomly divided in to two equal groups; a corrective exercise in water and an exercise on land. All subjects participated in 12 sessions; three times a week and each time for nearly half an hour program. The dependant variables were: back muscles power; spine flexibility; chest expansion; shoulder abduction movement extension. The dependant variables were measured by dynamometer; goniometer; and the strip meter before and after the exercises. Independent t-test was performed to compare the mean of dependent variables between two groups ($\alpha=0 /05$).

The result showed that there was a significant difference between groups for the back muscles power ($p<0 /05$) and shoulder abduction movement ($p<0 /05$). Whereas; no significant difference for the spine flexibility and the chest expansion was observed ($p<0 /05$).

In conclusion; the exercise in water affected more on the back muscles power and shoulder abduction movement than on land.

Key Words: *Kyphosis; Hydrotherapy; Corrective Exercise*

Sport Medicine

Postre Presentation

COMPARISON OF THORACIC KYPHOSIS IN TWO GROUPS OF PROFESSIONAL AND AMATEUR CYCLISTS

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1. *Isfahan University*

2. *Tehran University*

Abstract

Cycling is one of the sports that athletes in it use a kind of posture for a long time. It seems that this position effects on curve spine. The aim of this study was to investigate whether the cycling position effected on thoracic kyphosis in two different groups of cyclists and a group of non-athletic participants. Seventy elite Iranian male cyclists including 35 professional road cyclist (mean (SD) age 26.5 (4.01) years; height 176.9 (7.36) cm and weight 70.46 (7.7) kg; with 9.9 (4.6) years experience of cycling) and 35 amateur road cyclist (age 19.5 (3.03) years; height 171.3 (4.2) cm and weight 68.74 (6.41) kg; with 2.5 (1.1) years experience of cycling) and 35 male non-athletes (age 23.5 (2.2) years; height 169.5 (5.8) cm and weight 69.03 (9.1) kg) were recruited. All professional road cyclists competed at international level with the Iranian national team or Iranian student national team. Each selected cyclists had to complete a questionnaire about traits of training and experience of doing cycling. The degree of kyphosis was measured by a 60 cm flexible ruler. Mean (SD) kyphosis was 49.7° (6.9); 45.8° (5.3) and 43.2° (6.4) for the professional road cyclists; amateur road cyclists and non-athlete groups; respectively. One-way ANOVA show a significant difference in mean kyphosis between professional cyclists and amateur cyclists; professional cyclists and non-athletes group ($P < 0.05$) but for amateur cyclists and non-athlete group was not significant ($P < 0.05$). It can be conclude that degree of kyphosis was highest in professional road cyclists; followed by amateur road cyclists and then non-athletes. The extent of kyphosis was influenced by years of training.

Key Words: *Kyphosis; Posture; Flexible Ruler; Professional Cyclists*

EFFECT OF EIGHT WEEKS OF STRENGTH AND PLYOMETRIC TRAININGS ON PASSIVE JOINT POSITION SENSE

Saeid Eftekhari; Khalil Khayam Bashi; Vazgan Minasian

Isfahan University

Abstract

The purpose of this study was the effect of eight weeks of strength and plyometric trainings on passive joint position sense. For this purpose 45 male students of Isfahan University selected and then fill testimonial; and participated in this semi-empirical study. Subjects divided in three groups strength (n=15); plyometric (n=15) and control. Joint position sense measured at three angles 30; 45 and 60 degrees in knee by Biodex isokenitic system 3. For data analysis One-way ANOVAs were used. Results showed that trainings significantly improve the joint position sense in initial and final angels (30 and 60 degrees). Also comparison of trainings revealed that strength training in 30 degrees and plyometric training in 30 and 60 degrees significantly improve the joint position sense. Between two methods of training only at 60 degrees significantly difference was observed.

Key Words: *Strength Training; Plyometric Training; Passive joint Position Sense*

THE LONGITUDINAL STUDY OF TYPE AND CAUSES OF SPORT INJURERS AMONG PHYSICAL EDUCATION STUDENTS

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1. *Guilan University*

2. *Tehran university*

3. *Islamic Azad University Karaj Branch*

4. *Amol University*

Abstract

The purpose of this study was investigated the causes and types of sports injuries in P.E. students in related to frequency and type of their sport class; competitions and recreational activities of them. In a longitudinal follow-up study 72 P.E. student include male (n=28; age 21.6±2.6) and female (n=43; age 20.26±1.3) during 3.5 year period (7 semesters) were examine. All injuries of the subjects were recorded at the end of each semester. Data of first semester used as a pilot study. In total 574 injuries were recorded (285 injury for male and 289 injury for female). In a totally lower extremity with 45.4% (3.7±17.4 injury per each subject); upper extremity with 32.2% (2.7±2.6 per each subject); trunk with 12.5% (0.87±1.3 per each subject) and head; face and other segments with 9.9 (0.94±2.7 per each subject) have had most injuries. The most type of injury was muscle injury and lack of physical fitness was the most common cause of injurers in P.E student. It can be concluded that high incidence and the varieties of sport injuries in related to some specific sport classes and risk factors emphasized on modifying of teaching style and planning of educational program of P.E. students.

Key Words: *Rate and Incidence of Sport Injuries; Sport Class; P.E Students; Recreational Activity; Competition*

INVESTIGATION OF CHANGES SALIVARY OSMOLALITY; SOLUTE SECRETION RATE; IGA TO OSMOLALITY RATIO; SALIVA FLOW RATE AND CORTISOL SOCCER PLAYERS

Ayoob Mahdivand; Vahid Sari Saraf; Ali Barzegari; Mahdi Soleimani

Abstract

Introduction: Several studies in the field of physical stress on the role of the immune system have shown that many physiological changes create is practice and competition in the function of mucosal immune parameters. The purpose of this study was to determine effect of single bout of soccer on mucosal immune parameters in soccer players. **Methods:** Two soccer teams of first-league Iran (22 players) with average (age 21 ± 2 yr; VO_{2max} 51 ± 3 ml. kg. min) was chosen directly and participated in a match soccer (90 minute). Timed unstimulated saliva samples were collected at before; immediately and 24 hours post-exercise. Salivary samples were collected. Data were statistically analyzed by one way ANOVA test; software SPSS16 ($P\leq 0.05$). **Results:** The result suggest is that single match soccer significant increases salivary osmolality; cortisol and significant decrease saliva flow rate and IgA to osmolality ratio. While there is no significant difference in solute secretion rate. **Conclusion:** time factor and decrease saliva flow rate could adversely impact on mucosal Immune.

Key words: *Mocusal Immune System; Salivary Osmolality; Soccer; Solute Secretion Rate*

EFFECT OF WILLIAM'S EXERCISE ON HYPER-LORDOSIS AND ACUTE BACKACHE IMPROVEMENT AMONG FEMALE MIDDLE AGE

Sayed Mohammad Hejazi; Razita Heidary; Mohammad Reza Ramezanpour; Mahmood Soltani

Islamic Azad University; Mashhad Branch

Abstract

The present survey was implemented with aim of consideration in effects of Williams's exercises on the improvement Hyper- Lordosis and acute backache on female middle age. Investigation Method: the sort of investigation was practical; and the method is semi-experimental. In this survey; we used 22 individuals with Hyper-Lordosis symptom and acute backache into two experimental groups (12 individuals) and control (10 individuals). The investigation plot was as a pre-test and post-test method that was analyzed by rank test of Willkakson and Fredman. We utilized pain questionnaire of McGill and waist vertebra radiology to determine waist pain extension and the angle of Hyper- Lordosis Exercise schedule is a collection of Williams's exercises that was done in 24 exercise sessions in duration of eight weeks as three parts per week with regarding to over-weight principle via increasing time and exercise repetition from 45 minutes to 100 minutes. Findings and Results: Williams exercise plan has a meaningful impact on the decreasing in Hyper-Lordosis angle; and acute backache. Penitents who have this kind of sickness can utilize exercise schedule of this survey for reduction in Hyper- Lordosis and backache as a cheap remedy and lucrative endeavor.

Key Words: *Hyper- Lordosis; William`s Exercise; Backache*

The Study of Predictor's Anthropometric Parameters with Trunk Anatomical Alignment in Athletes

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1. *Guilan University*

2. *Ferdowi University of Mashhad*

Abstract

The purpose of this study was investigation of trunk anatomical alignment in relation to anthropometric parameters in athletes. 20 healthy athletes (age 22.25 ± 1.88 yr; height 182.78 ± 5.49 cm; weight 75.35 ± 3.19 and athletic experience 9.38 ± 3.77) and 20 healthy non-athletes (age 22.80 ± 2.01 yr; height 179.35 ± 6.25 cm; weight 71.10 ± 2.30) randomly participated in this study voluntarily. Variables sitting height; spinal length; Arm Span; chest width and depth; acromial distance; Kyphosis and lordosis were measured. The results showed a significant difference between kyphosis and lordosis in athletes and non-athletes ($p \leq 0/05$). There was also significant relation between sitting length; spinal length; Arm span; acromial distance by Kyphosis and sitting length; spinal length; by Lordosis ($p \leq 0/05$). The results of regression showed that Arm span and spinal length were the best predictors of Kyphosis and Lordosis respectively. What is distinguished in this study is the identification and care of those athletes who due to some anthropometric indices are more susceptible to some postural abnormalities in long term; especially exaggerating of Kyphosis and Lordosis and their side effects would rise by exercising and through constant movement patterns.

Key Words: *Athletes; Trunk Anatomical Alignment; Anthropometric Parameters*

Injuries Profile of Iranian Professional Male Cyclists

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Abstract

Cycling is a popular; exciting; and challenging sport with many risk factors that can cause injury in cyclists. The purpose of this study was to investigate characteristics of injuries in professional road cyclists. Information about injuries (over 5-year time) on 43 cyclists was collected using injuries report form. For analyzing data Chi-Square Test was used. In total 609 injuries (3 injury per cyclist per year) were reported. Most of the injuries were located in the upper (62%) and lower extremities (38%) ($P<0.05$). Knee (25%); shoulder and clavicle (18%); wrist and palms (14%); femur (11%) and elbow (9%) were the most common sites of injury ($P<0.05$). The most common injury types were abrasions (43%) followed by contusions (40%); strains (9%) and fracture (5%) ($P<0.05$). Number of collision injuries (91%) was significantly higher than non-collision injuries (9%) ($P<0.05$). Collision with other cyclists (39%) was the most important cause of bicycle injury ($P<0.05$) followed by collision with obstacles in the road (15%) sudden twist in front of other cyclists (14%); and lost of control or falls (10%). The rate of injury was more than 5 times higher in competitions than in practices (84% vs 16%) ($P<0.05$). Injuries at the end of the race (42%) were more than at the initial or mid-race ($P<0.05$). The rate of injuries in normal road (75%) was more than uphill and downhill roads ($P<0.05$). It can be concluded that upper extremities had greater number of injury and knee and shoulder were most exposed area and the main cause of injuries was collision with other cyclists.

Key Words: *Sport Injury; Characteristics of Injuries; Cycling; and Professional Road Cyclists*

ESTABLISHING OF BALANCE NORM FOR GUIDANCE LEVEL BOY STUDENTS OF GUILAN PROVINCE

Ali Asghar Norasteh; Hasan Daneshmandi; Mehr Ali Hemati Nejad

Abstract

Balance tests are used to identification of injury and awareness of the effect of rehabilitation. So; this study was performed to establish balance norm of guidance level of Guilan Province. 400 male student of guidance level of Guilan Province (age: 13.08 ± 0.97 years old; height: 157 ± 10 cm; and mass: 49.81 ± 14.23 kg) were selected cluster random sampling and star excursion balance and strock stand tests were performed on dominant and non-dominant legs. Descriptive statistics were used to establish the norms. Finally; balance norm in dominant and non-dominant leg for each of the three levels were established.

Key Words: *Norm; Static Balance; Dynamic Balance; Dominant Leg; Non-dominant leg*

THE RATE AND NATURE OF WOMEN INJURIES IN STEP AEROBICS

Fereshteh Kazemi; Vahid Zolaktaf; Gholam Ali Ghasemi

Abstract

Step aerobics is a form of aerobic exercise that utilizes a 90×45×20 centimeter platform. Its International competitions are held annually. This sport is popular in Iranian specialist female sport clubs and its national competitions are growing gradually. The purpose of this survey was to determine the rate and nature of sport injury in Iranian athletes of step aerobics. We administered a structured interview using a modified version of standard questionnaire of "Aerobics Pathology". The population consisted of participants in Iranian super; and divisions 1; and 2 leagues. The sample included 82 performers (aged 24±5 years) from 11 provincial teams selected by cluster convenient sampling. Annually; 53% of participants had 1; 2; or 3 injuries. The rate of injury was 0/94 injuries in 1000 hours of practice. Site of injuries by the order of prevalence were ankle 30%; knee 24%; and back 17%. Injury types included chronic 41%; sprain 20%; and strain 17%. In conclusion; the injuries were occurred mostly due to causes such as too many exercise hours (overuse); fatigue; technique error; abnormal posture; and inappropriate shoes or training surfaces. This is likely to improve the situation by injury prevention and management courses for instructors and performers.

Key word: *Steps Aerobics; Injury; Injury Prevalence*

THE SURVEY COMPARISON AND AMOUNT PREVALENCE OF SPINAL COLUMN ABNORMALITY IN EXCEPTIONAL BLIND AND SEMI-BLIND BOY STUDENT

Sayed Hamed Mousavi; Behnam Ghasemi; Forough Moeini

Shahrekord University

Abstract

Introduction: the purpose this studies is determining of spinal column abnormality in fars province exceptional blind and semi-blind boy students.

Methods: in this search 114 trails took part; which were selected via access across blind and semi-blind students fars province. The mean and standard deviation of student's height; weight and age was 149.14 ± 8.43 centimeter; 43.96 ± 6.95 kilogram and 13.14 ± 1.12 year respectively. Required data for study obtained from the observation and physical inspection. Measurement tools for study included: posture screen; the chart of New York test; the plumb; scale; meter and Adams test. Two approached have been used in this method; descriptive & comprehensive statistics. Resulted numbers from physical test have been illustrated in tables and curves; in from of crud and percentile excess. In order to data decomposition and analysis; also the Spss software & X^2 Test have been used.

Results: the results indicated that there was no difference significant between forward head; kyphosis; and lordosis abnormalities. But there were different significant between torticollis and scoliosis uneven shoulder abnormalities ($X^2= 6.197$; $p=0.045$); ($X^2=6.705$; $p=0.035$); ($X^2=6.613$; $p=0.037$). Thus distribution percent in blind group more of semi-blind group.

Discussion & conclusion: By attention to results & findings of ordinary (common) students and compare them with present study; we can result that in whole of the cases abnormalities percentage in normal students is less than blind students. Probably these different causes are defect of vision and other related problems.

Key Words: *spinal column abnormalities; exceptional blind and semi-blind boy students*

THE INTELLIGENT ESTIMATING OF SPINAL COLUMN ABNORMALITIES USING BY ARTIFICIAL NEURAL NETWORKS AND CHARACTERISTICS VECTOR EXTRACTED FROM IMAGE PROCESSING OF REFLECTIVE MARKERS

Mohammad Yousefi; Naser Mehrshad; Saeid Ilbeigi

Birjand Univerity

Abstract

To measure the spinal column abnormities; the Kyphosis and Lordosis angles normally compare to the standard norms. The subjects can be classified to the healthy and abnormal groups Based on the angle value. The aim of this article is to use the artificial neural network for realizing the spinal column abnormalities. 20 male students (26 ± 2 years old; 72 ± 2.5 kg weight; and 169 ± 5.5 cm height) volunteered for this research. According to this method; the lumbar lordosis and thoracic kyphosis angles were analyzed using by image processing of 13 reflective markers set on the spines process of the thoracic and lumbar spine. In this way; after analyzing the position of these markers; a characteristic vector was extracted from the lateral side of every person. The artificial neural network was trained by using the characteristic vector extracted from the labeled image of every person. At last the neural network is used to diagnosis of the abnormalities. The results indicated the high efficiency of this method as the CCR (train) and CCR (test) were gotten %96 and %93 respectively. These results showed that the neural network can diagnosis those abnormalities. The most important benefit of this method is estimating of spinal column abnormalities without considering intermediate quantities; standard norms of these intermediate quantities being non-invasive method.

Key words: *Abnormality; Spinal Column; Kyphosis; Lordosis; Neural Network & Classification*

COMPARISON OF TWO TECHNIQUES MASSAGE; STATIC STRETCHING AND COMBINATION OF MASSAGE AND STRETCHING IN LOWER LIMB MUSCLE ON FLEXIBILITY; POWER AND AGILITY TESTS PERFORMANCE IN SOCCER PLAYERS

Ali Mostafalou; Hadi Rohani¹; Ali Chourli²; Somaye Khosrojerdi³

1. Guilan University

2. Higher Education Complex of Gonbad-e Kavous

3. Education Organization of Mino Dasht

Abstract

The purpose of this study was investigating Comparison of two techniques massage; static stretching and combination of massage and stretching in lower limb muscle on flexibility; power and agility tests performance in soccer players. 45 soccer players in three groups randomly massage (15 cases); stretching (15 cases) and a combination of massage and stretching group (15 cases) were selected; performed the Sit and Reach; Toe-Touch; Vertical Jump and 4×9 tests in two stages before and after massage; static stretching and combination of massage and stretching. They warm up themselves by 5-min jogging before testing. Massage; static stretching and combination of massage and stretching were performed on lower limbs in methods for 15 min. Each test was performed three times and the best record was accepted. In order to effect any of the protocols and correlated t-test to compare the effects of the ANOVA and Toky test at $p<0.05$ level was used. Results showed the records of flexibility and power (except massage) tests have significantly increased after massage; static stretching and combination of massage and stretching ($p<0.05$). But; observed no significant changes in agility (except combination of massage and stretching) test records. In general; Athletes can use acute massage; static stretching and combination of massage and stretching protocol before competition or maximal flexibility-required and power exercise to obtain more benefit from increased flexibility and reduced risk of muscle injuries.

Key Words: *Massage; Static stretching; Flexibility; Vertical jump; Soccer*

COMPARISON OF BONE MINERAL DENSITY AND CONTENT IN THE MALE SOCCER AND HANDBALL PROFESSIONAL ATHLETES WITH NON-ATHLETES

Sayed Mahmoud Hejazi; Mahmoud Soltani; Ali Zamani

Islamic Azad University; Mashhad Branch

Abstract

Some studies conducted suggest that the exercise during adolescence can increase bone mineral density and content and it can be a storage for senile period but still it has been not made any sure about its type and intensity which it provide maximum the anabolic stimulation with the bone the purpose of this study is to compare between the bone mineral density and content in the male soccer and handball professional athletes and male non-athletes. The research examinable consisted with 42 males ranging 20-30 years as three groups which were selected 14 professional soccer athletes ;14 professional handball athletes and 14 young men non-athletes. The athletes had at least three continuum athletic histories with each considered exercises; which were selected in Mashhad clubs level; while non-athletes had not any regular and continuum athletic histories. It was measured to the examinable BMD of arm femur and bone mass by DEXA device. Data were investigated in the significance level with 5 percents; using descriptive statistics and unilateral variance analysis; and LSD pursuit test. The obtained results from this research indicated that there is not any significant difference between comparisons of arm BMD in three athletes groups namely soccer player; handball player athletes; and control. And this difference was significant in femur and bone mass between three groups and this significance was between the control group with soccer player group and also the control with handball player group. By considering to the research results; this theory which the response of bone for mechanical loading is dependence to the type and practice of athletic activity has been confirmed.

Key words: *Bone Mineral Content; BMD; Bone Mass; BMC; Soccer Player; Handball Player*

THE EFFECTS OF MASSAGE AFTER ONE SESSION OF INTENSE EXERCISE PARTICULARLY IN WHEELCHAIR BASKETBALL ON IMMUNOGLOBULIN A IN ELITE MENS

Saman Yousefi Saghezi; Behnam Ghasemi; Mohammad Faramarzi

Abstract

This study determines the effect of massage on immunoglobulin A with wheelchair basketball disabled one in the exercise session was particularly intense. Subjects included 16 people were physically disabled. The disability rating; making them homogeneous and equal to 8 player control groups and 8 Experimental group patients groups. Exercise special intensive session was do with wheelchair basketball for 40 minutes and the maximum intensity. After 20 minutes of activity in experimental group massage and control group at this time to rest. Serum samples from subjects 24 hours before exercise; immediately after exercise; immediately after the intervention and 24 hours later was taken. The results showed that after a massage significant increase in immunoglobulin A (IgA) experimental group ($p= 0.02$) observed a significant increase in IgA and control group ($p= 0.01$) also was observed after 24 hours. Overall; the results of this study showed that massage after exercise intense the disabled athletes actively than resting absolute; is positive effect on immunoglobulin A.

Key Words: *Massage; Wheelchair Basketball; Exercise Particular; Immunoglobulin*

DETERMINE THE FREQUENCY OF INJURIES AND ETIOLOGY OF THEM AMONG ELITE SKATERS

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1. University of Birjand

2. Tehran University

Abstract

Sport activities have always been associated with risk of injury and these sport injuries can be predictable. We can prevent these injuries by knowledge of the prevalence and causes them. The aim of this descriptive study is to determine the frequency of injuries and etiology of them among elite skaters. The statistical sample of this research was 54 subjects detached by 18 provinces participating developed in the national team matches (%56). They answered the injuries and etiology of them questionnaire that its validity has been accepted by several certificate teachers. The data were analyzed by descriptive statistic (frequency; relative frequency) and inference statistic (Chi-square test). Research findings showed cutaneous; muscle; joint and bone injuries are allocated 6 / 46; 6 / 38; 5 / 10 and 3 / 4 percent of the total frequency of injuries among the Skaters respectively. Lower extremities with 1 / 42 percent and the head and face with 3 / 8 percent were highest and lowest of relative frequency injuries respectively. The knee joint has been realized as the most vulnerable of body (8/5 percent). Erosion injury (34/5 percent) has most common injury among Skaters cracking and fracture closed (36 / 0 percent) have the lowest injury frequency. There are some reasons about the causes of injuries but the most important of them are not warm before exercise; failure to observe safety issues and then the lowest important are psychological factors and internal motivation and desire to win.

Key Words: *Etiology; Sport Injuries; Skate & Elite Athlete*

THE STUDY OF THE RELATIONSHIP BETWEEN PREVALENCE OF SPORT INJURIES AND SOME INJURY CAUSING FACTORS AMONG ELITE PANKRATION OF IRAN

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2. Education Organization of Fars

Abstract

The aim of this research was the study of incidence; type and mechanism of sport injuries in Pankration in the sport men at the country national level.

The sample of research was consisting of 19 person of national team Pankration of Iran. The instrument of this research was questionnaire. After collecting questionnaires; investigate information's get through descriptive and inferential statistics (chi-squared test).

These findings shows that muscular injuries was significantly higher than others ($p < 0.05$). Also; injuries in lower limb organic was significantly higher than other parts of body ($p < 0.05$). Trauma injury with 29.2% the most injury and open fracture with 1.8% was the least injury. Also results showed that the main mechanism of injuries was opponent's kick and punches blow (60.8%).

Informing coaches and athletes more often with current injury in this sport; correction of present regulations; controlling blow; decreasing wrong blow; using protecting instruments and more safety are the ways for decreasing injuries in this sport.

Key Words: *Sport Medicine; Sport Injuries; Prevention; Sport First Aid; Rehabilitation*

EFFECTS OF TWO KINDS OF EXERCISES WITH LOW AND HIGH INTENSITY ON SOME HEMATOLOGICAL FACTORS IN ELITE FEMALE ATHLETES

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Abstract

The purpose of this study is to determine the effects of two kind of exercise with low and high intensity on red blood cell; hemoglobin; hematocrit in elite Kayaker women. Method: In order to achieve the purpose of the study; 11 elite voluntary athletes (Mean aged 18.72 ± 1.618 ; height 165 ± 6.16 ; weight 57.72 ± 6.24) participated In the program. Before exercise the test blood sample were taken .Then the subject rowed for 30 minute with an intensification of 65 row rhythm per minute in the lake. The second blood samples were taken instantly. Rowers participated in high intensity exercise 24 hours after in the same situation with 90 row rhythm per minute. The blood samples were sent to the laboratory. We applied the ANOVA with repeated measure statistical method for analyzing. Result: the finding of this research showed:

- An increase in mean red blood cell in both low and high intensity exercise which the high intensity exercise lead to a significant increase in RBC($P < 0.05$).
- An increase in mean hemoglobin in both low and high intensity exercise which the high intensity exercise lead to a significant increase in hemoglobin ($P < 0.05$).
- An increase in mean hematocrit in both low and high intensity exercise which the high intensity exercise lead to a significant increase in hematocrit ($P < 0.05$).

Discussion and conclusion: the finding of this study shows that the count of RBC and hemoglobin increase with exercise. This increase is because of decreasing the plasmas volume diffusion to interstitial tissue; so hematocrit and hemoglobin increase in volume unit.

Key Words: *Red Blood cell; Hemoglobin; Hematocrit; Row Rhythm per Minute; Kayaker*

DETERMINATION OF IMPACT STRENGTH AND RESISTANCE TRAINING ON HEMOGLOBIN AND BLOOD SUGAR GLYCOSIDE PATIENTS WITH TYPE II DIABETES

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Abstract

Including diabetes; metabolic disease that is characteristic of their chronic hyperglycemia and impaired carbohydrate metabolism; fat and protein are. Since the use of various drugs; has always been associated with side effects; and today more efforts to prevent disease and also according to different studies on the effectiveness of training programs on various health indicators; blood insulin resistance reduce drug use and mental health has been improving; the company seems to make a regular and documented a stake in sport can reduce the complications of diabetes; reducing drug use; mental health patients will have improved. This study determined the impact strength and resistance training on hemoglobin Glycoside and glucose in type II diabetic patients in 88 Khorram abad done. Methods: This quasi-experimental pretest posttest design; which is among 30 men with type 2 diabetes referred to laboratories Khorram abad; after screening and interview with purposeful sampling is done. After the subjects completed questionnaires and consent to medical records randomly into three groups endurance training; strength and control groups. conditions in research over 30 years of age blood sugar 150-250; the absence of any other chronic disease and history of the three sports Last month; stroke; hypertension; diabetes and severe complications were Before training of the subjects were fasting for 8-12 hours of blood sampling was performed. Strength training and endurance for 8 weeks under coach concerned were applied. Strength training includes 10 motions for muscles and for each move three to four sets and sets of 10 to 12 repeats were considered and the principle of overload during the eight weeks follow was. Endurance exercise; including running on a treadmill machine with a maximum heart rate was 60%. Control group was advised to attend eight weeks of exercise should not. After the eight-week training period; and then test (blood test) done. Assessment data was performed using SPSS statistical software. The mean is (pre-test; post test) of T pairs was used. Results: 29 subjects in three groups of exercises were conducted until the end. Average age; weight; body mass index and amount of drug using in three groups showed no statistically significant difference ($p = 0.76$). Glycoside hemoglobin in the group before and after the endurance test showed significant difference ($p = 0.02$) in group exercises power and control showed no significant difference. FBS in the endurance group in power had a significant relationship in the control group showed a significant relationship. Conclusion: This study shows endurance training reduces Glycoside hemoglobin levels; the amount of strength training; although it did significantly reduce the strength training appears to cause more significant changes are the factors.

Key words: *Endurance & Strength Training; Type II Diabetes; Hemoglobin*

COMPARISON KNOWLEDGE RATE OF RECOGNITION AND PREVENTION MANAGEMENT AGAINST SPORT INJURY IN AMATEUR AND PROFESSIONAL COLLEGIATE FEMALE FOOTBALL PLAYERS

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Abstract

The purpose of research is; comparison knowledge rate of recognition and prevention management against sport injury in Amator and professional collegiate female football players. Research statistical sample athletes in football competition on 8 areal country that among 9 groups : 7 groups answered knowledge injury Questionair Vang (2006). Results of investigation showed that with attention to T-Test rate between groups; there is not a significant different among score mean on two groups. Also in survery of relation between background athletes with their knowledge score with regard to (p value<0/05) just in variable management of pathology basics there is significant relation; namely. Increase experience lead to pathology high score.

Key words: *Knowledge of Pathology; Management; Amateur and Professional Athletes*

COMPARISON OF INJURY MECHANISM IN BOY'S AMATEUR EPICAL ATHLETES IN THREE FIELDS: TAEKWONDO; JUDO; KUNG FU

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Zahedan University

Abstract

The aims of this research were to the comparison of the injury mechanism in the three martial art field taekwondo; judo; kung fu

Methods: The present research is the lasting research is the lasting research that has been analysed injuries in three last months. The samples of research include 92 kung fu players; 65 judo players; 61 taekwondo players from Shiraz clubs. The samples were selected availability and purposefully. Destamp and other (2006) adjusted questionnaire used to collect data and Spss software and X² test used to analysis data.

Results: the results shows that amount of happened injuries were in the fields kung fu (55.4 percent); judo (25.3 percent) and taekwondo (19.3 percent). Also; the technique mistake usage in judo (23.7 percent) to opponent technique miscue in taekwondo (30.3percent) and opponent knockdown in kung fu (29.9 percent) were known as important mechanics of appearing injury. In sum the amount of injuries of exercise time (80.6 percent) was significantly more than competition (19.4 percent) time in each of there fields.

Discussion & conclusion: The received results in this research indicated the measure of high prevalence of injury in kung fu to ways of taekwondo and judo. Total conclusion: kung fu is an encounter sport; nevertheless the ways of taekwondo were done under the semi – encounter laws and it has been caused the prevalence of fewer injuries in this way. So; the interested persons are recommend to enter in to partnership in the ways of taekwondo.

Key words: *Taekwondo; Judo; Kung fu*

THE MECHANISM OF POSTURAL CONTROL AGAINST ANTERIOR SUDDEN ACCELERATION ON THE BASE OF SUPPORT (COMPARISONS BALANCE PERFORMANCE OF COMMON ATHLETES AND NORMAL SUBJECTS)

Yasin Hoseini; Nader Farahpour; Mir Hosein Dezfoulian; Paol Alard; Teymour Jaafar Nejad; Reza Davtalab

Abstract

Acute injuries ; including traumatic brain and spinal cord injuries; Hip fracture and even death occurring as a result of falls and poor balance. Clinicians are looking for a suitable way of improving dynamic balance through a common sport which could be more beneficial. The benefits of exercise with respect to general health can improve balance and prevent of falling. It is interesting to understand how this sport modifies the balance performance. The objective of this study was to compare the postural control during a sudden perturbation on individual's balance by accelerating the base of support. in this study fourteen athlete (age:29.57±8.5) and fourteen nonathletic (age:30.6±7 .91) participant. There is significantly different between two groups in range of motion of knee joint and hip joint. in generally athletes have better balance than nonathletic.

Key words: *Alethes; Balance Performance; Postural Control*

IS POSTURE OF ELEMENTARY SCHOOL CHILDREN ASSOCIATED WITH SOCIO-ECONOMIC STATUS OF THEIR PARENTS?

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Abstract

The association of socioeconomic status (SES) with health is well-established. Nevertheless; the underlying mechanisms linking SES to adverse health outcomes have yet to be established. We hypothesized that poor posture as a risk factor in general health would be directly related to SES and as such; eventually influences health. In representative clustered sample of 100 children aged 7-11; kyphosis; lordosis; head and shoulder posture were examined. SES data was collected from parents. Poor posture was seen in 68% children. Less posture score diagnosed in children with poor SES ($p < 0.01$; $\beta = 0.769$). In logistic regression ($p < 0.05$); only 3 out of the 5 estimates (Household income: $\beta = 0.244$; Mother's education: $\beta = 0.449$; Father's education: $\beta = 0.279$) were statically significant; while there was no association between social-class of parents and children posture. This might be the consequence of the perception that people with higher SES have better nutritional and physical activity status and more postural education.

Key words: *posture; socio-economic factors; elementary school children; postural education; parents*

THE RELATIONSHIP BETWEEN ANTHROPOMETRIC FACTORS AND LEG MUSCLE STRENGTH WITH STATIC AND DYNAMIC BALANCE ABILITY IN FEMALE ATHLETES

Sareh Shahheydari; Ali Asghar Norasteh; Hamid Mohebbi

Abstract

The aim of the present study was to investigate the relationship between anthropometric factors and leg muscle strength with static and dynamic balance ability in female athletes. Forty healthy athlete women (mean age 20.50 ± 3.86 yrs; height 161.20 ± 7.26 cm and weight 53.91 ± 5.57 kg) participated in this study. Biacromial breadth; biiliac breadth; ankle breadth; static and dynamic balance and maximum unilateral squat strength were measured. There was significant and positive correlation between static balance with ankle breath ($p < 0.05$). Also there was significant and negative correlation between dynamic balance with leg length and biiliac breadth ($p < 0.05$). The results showed no significant relationship between static and dynamic balance with Biacromial breadth and maximum unilateral squat strength ($p < 0.05$). In conclusion; when using the SEBT or BESS for experimental or clinical purposes; some factors such as ankle breath and biiliac breadth should be attended to allow for a more accurate comparison of performance among participants.

Key words: *Postural Control; Ankle Sprain; Modified Unilateral Squat; Anthropometry*

THE RELATIONSHIP BETWEEN SOME ANTHROPOMETRIC CHARACTERISTICS OF FOOT WITH BODY WEIGHT AND THEIR COMPARISON IN ATHLETE AND NON ATHLETE GROUP

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2. *Tehran University*

Abstract

Lower extremity bear the body weight; also it is the place of human movements; As result every disorder in its natural status may be the result of various factor such as fatness or overweight. The purpose of this study was to research the relation between foot length; foot width and height of sphrion fibulare of foot and BMI and compaire them in athlete and non athlete groups. In this study; 200 high school student girls were used. 100 of them had no regular athletic activity and 100 girls had regular athletic activity for at least three years. After measuring their height and weight and write thier personal information; the characteristics of both of their foot was measured. The data was analysed by pearson correlation test and the independent statistical test (T-Test) ($p < 0.05$); with use of spps14. According to the results there was a meaningful relation between anthropometric characteristics of foot and BMI.

Furthermore the research showed that there is no meaningful difference in foot length and height of sphrion fibulare of foot between athlete and non athlete but ther was meaningful difference in foot width between two groups.

There may be different variations in foot structure which fatness and overweight may be direct or indirect reason of them. Also regular physical activity and exercise may have some changes on foot structure because of repeated actions; but these change is not too much to distinguish athlete and non athlete.

Key words: *Anthropometric Characteristics of Foot; Body Mass; Athlete and nonathlete Students Girls*

EFFECT OF STATIC STRETCHING AND LPG SYSTEM TECHNIQUE ON TREATMENT AND PREVENT OF DELAYED ONSET MUSCLE SORENESS

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2. *University of Tabriz*

Abstract

Purpose: This study was done in order to determining effect of static stretching and LPG system technique on treatment and prevent of delayed onset muscle soreness. **Methods:** In order to thirty non-athletic females [aged 21.8 ± 1.15 years; fat percent 23.69 ± 1.43 kg; BMI 21.79 ± 1.52 kg/m²] were voluntarily selected and randomly assigned to equal three groups. The stretching group executed a static stretch of hamstrings muscle for 20 min pre exercise and 12 hours post exercise. Hold each stretch 30 seconds. Second group received 15 min massaging by LPG system technique S6 model one hour post exercise. Third group haven't any treatment. All subjects performed 3 sets \times 15 reps (70% MCV) with curl hamstring system to induce muscle soreness and 1set \times 25 reps (20% MCV) for recovery. Creatine Kinase (CK); WBC; pain; thigh circumference; vertical jump; flexibility and maximum isometric strength were measured at pre-exercise and 24 hour after exercise. Data for each dependent measure were analyzed by one way ANOVA. Using Tukey post-hoc test where significant differences occurred between and within groups ($p < 0.01$). **Results:** Range of changes of blood CK activity; WBC; pain and thigh circumference were significantly decreased after pre and post static stretching and LPG massage treatment ($p < 0.01$) and range of changes of power; flexibility and maximum isometric strength were significantly increased after static stretch and LPG massage treatment ($p < 0.01$). While it wasn't different between static stretch and LPG massage significantly. **Conclusion:** LPG system technique is facilitating fluid movement so it is avoiding intramuscular edema resolution and decrease neutrophil margination. LPG massage is also removing blood lactate and increasing circulation. Stretching before and after exercise caused diffusion tissue edema. Therefore; pre and post exercise static stretching and LPG system technique could decrease cellular damages induced by DOMS and could recover muscle function. This may result in a faster recovery from illness or injury and a more rapid return to normal function.

Key words: *DOMS; static stretching; LPG system technique; CK; and maximum isometric strength*