

Table of Contents

PART ONE Oral Presentation

Sports Management-----3

- Study of Social Identity Differences among National Athletes of Team and Individual Athletic Fields
- Analysis of Factors Affecting Managers' knowledge of Sports Sponsorship in Attracting Sponsors of Sport in Western Parts of Iran
- Reasons for the Lack of Sponsor's Support of Professional Female Athletes in Sanandaj Football Clubs Privatization Barriers Ranking
- The Relationship between Fund Managers and Rank League Football Clubs
- Relationship between Conflict Management and Organizational Effectiveness of Youth and Sport Office Directors of Golestan Province

Exercise Physiology-----29

- Effects of Two Different Resistance Training Programs on Muscular Strength, Endurance and Body Composition
- The Effect of Different Intensities in Short- and Long-Term on Nitric Oxide in Obese Men
- The Effect of 8 Weeks Combined Exercise (Aerobic - Resistance) on Serum IL-18 Levels in Obese Men
- The Effect of 12 Weeks of Aerobic Exercise and Consumption of Nigella Sativa with Honey on Interleukin-6 in Elderly men
- Effects of a Short-Term Circuit Resistance Training with and without Crocus Sativus (Saffron) supplementation on Plasma Viscosity and Fibrinogen in young male college students
- The Effects of Ginger Extract on Biochemical and Functional Symptoms of Delayed Onset Muscle Soreness
- The Effect of Glutamine Supplement on Changes in hsp72, Cortisol and Plasma Glucose after Exercise
- The Effect of (Rosa Damascena) Supplement on Inflammatory Markers IL-6, CRP after Incremental Exercise in Active Females
- The Effect of Aerobic Activity Associated with the Consumption of Zinc Oxide on Liver Histology in Rats
- The Effect of Two Types of high intensity Interval Training on Some of Aerobic Performance variables of Elite Rowers
- Changes in fibrinogen levels, plasma viscosity and insulin resistance after 4 weeks of combined sit-up and walking training

Motor Behavior-----75

- The Effect of Rope-Jumping Plan on Fine and gross Skills of Fourth grade Students
- Effects of Task Difficulty on Postural Control in Overweight and Obese Men
- The Study of Relationship Burnout, Motivational Variables Team Performance of the Professional Volleyball Players

Sports Biomechanics-----91

- The Center of Mass Oscillations in Parkinson Patients
- Comparisons of EMG Activity of Rectus Femoris and Vastus Medialis in Different Phases of Squat
- The Effect of an Eight -Weeks General Preparation Exercise on Some Selected Biomechanical, Anthropometrical and Physiological Parameters of the Iranian National Females' Taekwondo Team
- A Comparison of the Static Balance of the 10- 11 Year Old Male and Female students with Low Vision and Hearing loss with Those of Normal Students
- The Relation Propulsive Force to Anthropometrical Measures Teenager's Elite Swimmers
- Designing Ergonomic Evaluation Assessment of Volleyball Sport Skills

Sports Psychology-----113

- The relationship between indicators of competitive and trait anxiety with the rate of injury in elite badminton players
- Comparison of used of psychological skills between male and female volleyball players during exercise and competition
- The comparison of strategies of coping with stress and goal orientation in male and female athletes' students in Guilan Province
- The Most Important Mental Scales Distinguishing Elite from Non-Elite young Female Judo Athletes in Hamedan

Sport Pathology and Corrective Movements-----129

- The Immediate and Prolonged Effects of Physical Therapy on the Gait of the Acute and Chronic Hemiplegia Patients
- The Effect of Two Methods of Exercise Therapy on Endurance of Trunk Muscles in Employed Women with Non-specific Chronic Low Back Pain

Exercise, Training and Health-----139

- Comparison of Morning Exercise Effect on Some Physical Fitness Factors of Urban and Rural Students in the city of Astara

PART TWO

Posters Presentation

Sports Management-----145

- Evaluation of the Incentive to Participate in the Sport and Recreational Activities in the City of Urmia
- The Relationship between Intellectual Capital with Organizational effectiveness in Tehran municipality Sport Organization
- Investigating the relationship between self-efficacy and burnout teachers of physical education Chalous City
- Evaluation and analysis of personal, family and social issues affecting the participation of Razi University Kermanshah students girl proven communicative approach of sports
- The Study of the Job Innovative and Creativity of the Physical Education Teachers are Participated in Specialized Scientific Competitions of the Country
- Privatization of Football Clubs in Iran: Challenges and Barriers
- Measuring & Modelling of Chaotic Management in Physical Education Organization of I.R Iran
- Comparing the Job Satisfaction of Teachers of Physical Education and Non-physical Education based on Herzberg's Theory
- Relationship between Basic Communication Skills and Roles on Organizational Commitment among Sport Managers in Isfahan
- Performance and Resistance to Change in the Relationship between Participation in Sports and Youth Agency Staff Kermanshah Province
- The Relationship between Abuse of Coaches with Perceived Effectiveness of the Alborz Province Elite Wrestlers Greco
- The Relationship between Motivation and Citizen Participation in Public Sports and Recreation to Economic and Social Situation in the Metropolis Kermanshah
- The Comparison Component Organizational Justice and Quality of Work Life Physical Education College in Azad and Public universities of Tehran
- Study of Ergonomics the Personnel Departments of Youth and Sports Semnan
- The Investigation of the Relationship between Time Management Skills and Productivity of Officials in Sport Stuffs in Quchan, Iran
- Codifying a Strategic Plan for the Volleyball Academies in Iran for Sections, Talent Identification, Based on a Combined Model of SWOT and AHP
- Prioritizing Opportunities Facing the Development of Sport in Physical Education Directors and Heads of Delegations from the Perspective of Kermanshah Province Public Sport

Exercise physiology-----213

- The Effect of Eight Weeks of Endurance Training with Milk: The Insulin Levels in Overweight Boys

- Effects of Swiss Massage and Static Stretching on Jumping and Sprinting Ability
- Comparing Effects of Selective Aerobics and Resistance Training on Profile Lipid in Overweight Untrained Women
- The Relationship between Breakfast Consumption and Body Composition in Students
-
- The Effect of Sauna and Wrestling on Blood Sodium, Potassium and Urea in Elite Wrestlers
- The Effect of Endurance Training on Serum hs- Creative Protein as an Inflammatory Predictor of Cardiovascular Disease in Untrained Men
- Effects of Arbutin Supplementation on Liver Total Oxidant and Antioxidant Status Following a Period of Aerobic Exercise in the Liver of Alloxan-Induced Diabetic Rats
- The Effects of Selected Aerobics Training on Time of Fatigue Incidence and Some Physiological Factors in Patients with Multiple Sclerosis

Motor Behavior-----239

- Observational Learning: A Suitable Alternative to Physical Practice
- Comparison of Perceived Motivational Climate between Female and Male Basketball Players Ranging from 18 to 23 Years Old
- Comparison of Proficiency Level (Skilled vs. Unskilled) in Learning Basketball Lay-up Shot
- Comparison between Simple Visual Reaction Time in Obese, Overweight and Normal Children
- The Effect of Relaxation Training with Physical Activity on Mental Health of Students
- Comparison between the Opening and Closing Skills Athletes in terms of Emotional Intelligence and Athletic Performance

Sports Biomechanics-----259

- The Plantar Pressure Distribution among Low Back Pain Patients in Static and Dynamic Positions
- Roundhouse Kick's Variability in Kinematic Coupling Assessed by Continuous Relative Phase and Vector Coding in Elite Taekwondo Players
- The Effects of Three Time Periods (5, 10 And 15 Seconds) Of Isometric Contraction in PNF Method on Range of Hamstring Stretch in Male Non-Athletes
- The Effect of Short- Term use of Cold Spray on Ankle Joint Position Sense in Professional Wrestler
- Technology of Sport Equipment Manufacturing Using Wood Composites
- Comparison of Shoulder Range of Motion during Direct Box to Boxing Bag and Shadow Kick in Amateur Boxers

Sports Psychology-----283

- Body Image and Self-Esteem Differences According to the Role of Gender in Students of Islamic Azad universities of Tehran
- The Relationship between Life Quality, General Health and Physical Activity among Old males in Sanandaj's Nursing Home

- The Relationship between Sources of Control and Loneliness in Disabled Athletes and Disabled Non-Athletes
- The Study of Teachers' Viewpoints about Responsibility Levels in Athlete and Non-Athlete Students

Sport Pathology and Corrective Movements-----301

- Description of Operational Injury with Upper Limbs Structure in Female Athletes of Sanandaj in volleyball, basketball and Futsal Premiere League
- The Effect of Corrective Exercises on Uneven Shoulder Degree of Tehran Female Student

Exercise, Training and Health-----311

- Are Morning Exercise Training Programs Effective on Physical Fitness of Rural and Urban Students?
- Assessing Demographic Characteristics and Main Reasons for not Participating in Sport Activities within Pregnant Women Referring to Health Centers in Gorgan

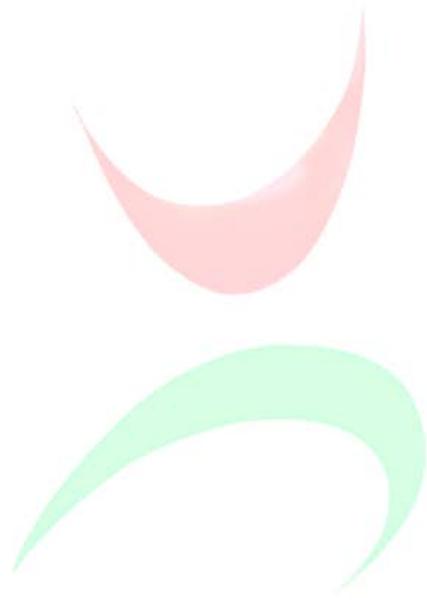




FIRST SECTION

Oral Presentation





Annals
of
Sport
Applied Science

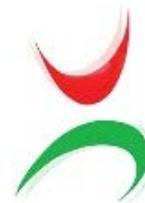


Sport Management





Annals
of
Sport
Applied Science



Study of Social Identity Differences among National Athletes of Team and Individual Athletic Fields

¹ Maryam Khajeh Salehani*, ² Alireza Gharaati, ³ Bahram Salehnia,
⁴Ramin Aslbazvand

1. Department of Physical Education and Sport Sciences, Astara Branch, Islamic Azad University, Astara, Iran.
2. Department of Media Management, Science and Research Branch, Islamic Azad University, Tehran, Iran.
3. Department of Media Management, Rodehen Branch, Islamic Azad University, Rodehen, Iran.
4. Department of Media Management, Karaj Branch, Islamic Azad University, Karaj, Iran.

INTRODUCTION

This research aims at studying the impact of the athletic field on the social identity. The research population included totally 44 athletes who were chosen from among adult athletes of the national team in the field of volleyball (30 subjects) and weightlifting (14 subjects).

METHOD

The athletic identity questionnaire (Brewer, 1993) comprising four subscales of self-identity, social identity, exclusivity, and negative affectivity was used to collect data. Mean and standard deviation were used in descriptive statistics and k-s test, independent t, and Mann-Whitney U-test were used to determine data normality and social identity differences between team and individual athletes in the significance level of $p < 0.05$ in the inferential statistics.

RESULTS

The results indicated that the type of sport affects the social identity. Social identity is of the significant difference in the fields of weightlifting and volleyball, respectively, and the variable of type of sport affects the social identity. Other findings revealed that the individual and team sports were significantly of a higher social identity.

CONCLUSIONS

To this group of elite athletes, these findings appear to be reasonable and justifiable.

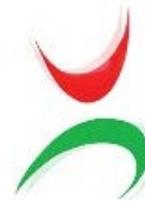
REFERENCES

1. Heerden, V., & Kirsten. (2010). Psychological and demographic correlates of athletic identity in elite south American swimmers. *Journal psychology* . 10,422-478.
2. Horton, R.S. & Mack, D.E. (2000) . Athletic identity in Marathon Runners: Functional Focus or Dysfunctional Commitment. *Journal of Sport Behaviour*, 23(2), 101-120.
3. Mailerz and Cristian (2007) Musing about personal competence: the contributions of sport, health and fitness. *American Journal community psychology* .7.221-40.



4. Shachar. B., Brewer. B.W., Correlius. A.E., & Petitpos. A.J. (2004). Career decision-making athletic identity and adjustment difficulties among retiredathletes: a comparison between coaches and non coaches . *kinesiologia Slovenia* 10. 71-85.
5. Stryker, S. & Burke, P.J. (2000). The past, Present, and future of an identity *theory*. *Social Psychology Quarterly*, 63(4), 284-297.





Analysis of Factors Affecting Managers' knowledge of Sports Sponsorship in Attracting Sponsors of Sport in Western Parts of Iran

¹Meysam Nazari Ghanbari*, ²Abdullah Farhadfar, ³Reza Amiri

1. MA in sports management, teacher of physical education in Kermanshah Department of Education, Iran
2. MA in sports management, teacher of physical education in Kurdistan Department of Education, Iran
3. Ph.D. Student of Sports Management, University of Tehran, Kish Pardis, Iran

INTRODUCTION

One of the areas of economic development in today's world is undoubtedly the sports industry. Given the astronomical contracts of athletes, television and media revenue of sports, sports tourism which attempts to hold national and international competitions, etc. it could be said that sports in the world today is one of the main factors influencing the economy. Economic development of sport is dependent upon the level and quality of investment in this industry and strong and efficient financial support in this area enhance national economic development and also accelerates the development of sports and economy (1). Smith (2008) regard sports sponsorship in sports today as one of the main sources of revenue (2). Moharramzadeh (2007) states that the sponsorship in the revenue generation in sports sector is the second most important factor following broadcast TV, in a fashion that the value of their participation some companies McDonald's, Kodak, Visa, Adidas and Cola in the Olympics has been over 170 million Dollars. Ryan (2004) reports that the sponsors of South Australian Football pay a 49.7 million dollar grant annually for the development of this sport in the Southern Australia (3). The results of some studies show structural and administrative obstacles in various sectors of sport as one of the barriers to attracting sponsors. Exercise without sponsorship from businesses and industries cannot continue to survive. This is because some researchers believe that today's sport is too much dependent on the sponsors (4). Due to lack of sufficient information and lack of financial support for sport in the Western provinces in Iran, the present study attempts to analyze the

Corresponding Author:
Meysam Nazari Ghanbari
E-mail: meysam.nazari2002@yahoo.com

knowledge of the directors regarding the sponsorship as one of the components of the presence of sponsors in the western provinces in Iran.

METHOD

The research is descriptive-analytical type and it is applied in terms of objective. The study sample is composed of all officials involved in the sport in the Western provinces of Iran (Kermanshah, Kurdistan, Hamadan, Lorestan and Ilam) who have at least a bachelor's degree (N =1700). Using the Morgan and Krejcie, 313 subjects were identified as the sample and their data was collected by a random stratified sampling method with regard to the size of the subgroups (place of work). Measuring instruments in this study was a research-made questionnaire consisting of 40 questions with five-option Likert spectrum which was compared with the subject of the study. The formal validity and reliability of the questionnaire was confirmed using Cronbach alpha by 0.89. Given the KMO index greater than 0.6 and also the obtained value of Sig ($P < 0.05$), use of factor analysis was appropriate, and this test was used for data analysis.

RESULTS

Research Question: what are the most important factors influencing knowledge management on attracting sports sponsors in the Western provinces in Iran?

Table 1. Factor analysis of the research question

Sub-indicators	Factor Weight					
	Kermanshah	Kurdistan	Lorestan	Hamedan	Ilam	Total
The impact of tax cuts in enhancement of incentives for investment in the field of sports	0.825	0.742	0.728	0.813	0.712	0.764
Supports of government officials of province property managers from intellectual ownership in the field of sport	0.730	0.733	0.704	0.724	0.704	0.719
The behavior of managers toward applicants of sports service and also services	0.634	0.628	0.623	0.645	0.625	0.631
Managers role in the comprehensive development of sport in province	0.686	0.640	0.633	0.681	0.630	0.654
Sponsors' satisfaction with their introduction marketing in the area of sports	0.665	0.650	0.620	0.640	0.635	0.642
Use of advanced marketing tools and techniques in sports departments and provincial organizations of relevant province	0.645	0.630	0.642	0.648	0.640	0.641
The existence of specialized workforce in sports agencies and bodies in order to attract sponsors	0.607	0.605	0.595	0.610	0.583	0.600
Avoid administrative barriers to sponsors by senior managers	0.601	0.610	0.576	0.619	0.584	0.598
The protection of ownership right such as financial assets of sports sector in province	0.565	0.540	0.569	0.573	0.553	0.560
The lack of influence of the group and personal relations on decision of managers in sports sector	0.446	0.447	0.422	0.450	0.440	0.445



According to the table above, the effect of tax cuts in enhancement of financial incentives for investment in the field of sport has the highest factor weight. Also, in terms of the statistical samples, the most important indicator in managers' knowledge about sponsorship is attraction of the sponsors in the western provinces in Iran.

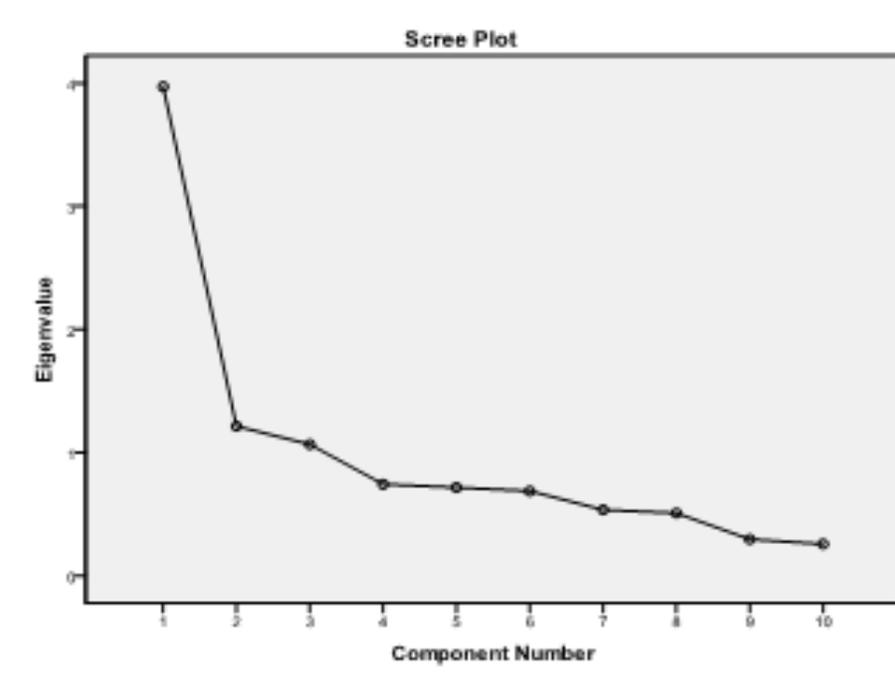


Figure 1: Diagram Sky graph related to the research question

According to the observed diagram, the first factor has a considerable gradient, and the gradient has become more balanced from the second factor onward. So it could be concluded that the first factor has the most significant impact on sponsor attraction for the sports in the Western provinces in Iran.

CONCLUSIONS

Results showed that the sports of the Western provinces in Iran is not sufficiently powerful in terms of attracting sponsors and the indicator under consideration, i.e. managers awareness of the sponsorship. The results of the present paper are consistent with those of Babamleky et al (2013) which regard the tax cuts as a main factor influencing reduction in investment incentives in attracting exercise sponsors in Kermanshah province. Asgaraian & Azadian (2013) regard some factors such as instability in the management of clubs or inappropriate management changes, lack of skilled managers and scientific management and political orientation in management as main

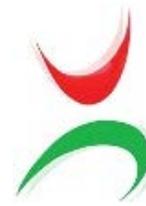


causes of inability to attract sports sponsors. The results of the present paper are in agreement with those of Hoda (2001) and Al-Mouez (2005) (5). For an enhanced absorption of revenue resources obtained from sponsors in the sport of the Western provinces in Iran, it is essential to first consider the existing obstacles. Such obstacles can be taken into account by managers and planners in these provinces before formulating development strategies to attract financial support and planning priorities.

REFERENCES

- 1- Babamaleky, M. (2004). Pathology of sports sponsors from the perspective of managers, government agencies and the private sector in the province of Kermanshah, Islamic Azad University of Boroujerd
- 2- Smith ACT. (2008). Introduction to sport marketing. Elsevier Ltd. 191-230
- 3- Seyed Ameri, M., H., Moharramzadeh, M., & others (2010); Barriers to attract sponsors in the sports industry in Azarbaijan Shargy province, Journal of Beyond Management, Vol. III, No. 10, pp. 147-164
- 4- Elahi, A. (2009). "Barriers and strategies for the economic development of Iran's football industry"; Dissertation, Faculty of Physical Education and Sport Sciences, Tehran University
- 5- Asgarian, F., (1391), Azadan, M., (2003). The obstacles to sponsor absorption in Iran professional football. Movement Science and Sport Management Research, Vol. II, No. 4, pp. 59-69





Reasons for the Lack of Sponsor’s Support of Professional Female Athletes in Sanandaj

¹Ghazal khoshnudi*, Bahar mardokhi²

1. MA in sports management, Lecturer in physical education, Islamic Azad University, Sanandaj.
2. MA in sports management, Lecturer in education, Kordestan, Sanandaj.

INTRODUCTION

orts and economic has an interaction. By investing in sports, governments and private companies can achieve a lot of advantages; on the other hand sports can play an effective role in their different aspects of economical developments. One of the funding ways for doing sports activities specially championship activities, is to attract companies and organizations as sponsors. In recent years, it has been several new professional women sports leagues (basketball, football, softball and volleyball). It shows women do like playing sports all the time. There are a lot of studies about effective factors of the presence of sponsors in sports; however most of these studies have been devoted to professional and between men’s school sports not women sports activities. Results of a research based on developments and strategy of attracting a sponsor in Canadian women’s ice hockey showed that the goal of companies to attract sponsors is to increase the sale, involve community, introduce the brand and increase awareness so having a sponsor can cause useful effects.

METHOD

* - Corresponding Author:

Ghazal khoshnodi

E-mail: gkhoshnodi@gmail.com

This survey is descriptive; it is done in the field. The statistical population is included all the companies in Sanandaj. According to the state organization for registration of deeds and properties of Kurdistan, there are 50 companies in different parts of this city. Here Sample was considered as the community because of the limited statistical population. Researcher made questionnaire was used for gathering information.

After validity confirmation, reliability of questionnaire was calculated by Cronbach alpha, the coefficient was 0.91. In order to statistical description of data frequency distribution tables, relative distribution, mean and standard deviation (SD) and for inferential statistics, Lewin, Kolmogorov, Smirnov (K-S test) and t-tests were used.

RESULTS

Table 1 showed 66% of managers believed that professional women sports can increase sales less than average. 78% considered women sports a little help to take the market and 70% thought women sports has an insignificant role in sales developments.

Table1, frequency distribution and percents of answers to questions about the impact of women sports on companies' sales:

Mean	Very much	much		little	Very little	Coefficients
2/14	6 %12	11 %22	17 %34	16 %32	frequency percent	Increasing sales \
1/94	3 %7	8 %16	22 %44	17 %34	frequency percent	taking the market(✓
2/02	3 %6	12 %24	18 %36	17 %34	frequency percent	spreading the market(✓

Table2, frequency distribution and percents of answers to questions about the impact of women sports on people's attitude towards companies.

Mean	Very much	much	little	Very little		Coefficients
2/58	11 %22	17 %34	12 %24	10 %20	frequency percent	Increasing people's awareness of the (\ company
2/48	8 %16	18 %36	14 %28	10 %20	frequency percent	Changing people's attitude towards the (✓ company
2/48	8 %16	17 %34	16 %32	9 %18	frequency percent	creating a suitable image of company in (✓ public opinion
2/22	5 %10	15 %30	16 %32	14 %28	frequency percent	increasing media's attention(£

According to table 2, 44% of managers believed that women sports can increase people's awareness of the company very little. 68% of corporate managers believed that women sports has no effective role in attracting new customers. 56% of managers thought women sports cannot contribute to commercial success. 54% of managers believed that women sports bring them fame



and 72% declared that women sports cannot play a significant role in strengthening customer relations. 76% Spread media coverage is not reachable.

CONCLUSIONS

The results show women sports increases sales of company very little. This result is inconsistent with Sparks and Westgate (2002) results. This inconsistency between Canadian and Iranian sponsors seems to be the result of media coverage of games, commercial contracts, sports Ads, presence of the audience and fans, and world competitions. Iranian women don't have these. Also results show women sports changed people's attitude towards the company less than average. So the results of this survey are inconsistent with Benveniste and Pigot (1988). They showed continuing sponsorship has a more positive effect on people and changes people's attitude towards the company. It's obvious that it takes sponsorship a long time to be valid. The reason of this inconsistency can be the lack of continuing investing in women sports. Most of companies' investments are short term.

REFERENCES

1. Atghia, Nahid (1381). Interaction of marketing and managements. Physical Education Institute.
2. Greenwell, C& Shackelford, E.(2005).Predicting Women's Division I Sport Attendance: Analysis of Institutional Characteristics.
3. Lapiano Donna.(2000). Pitfall in the development of the women's sports market.





Football Clubs Privatization Barriers Ranking

¹Hassan Gharekhani*

1. Department of Physical Education and Sport Sciences, University of Zanjan, Zanjan, Iran.

INTRODUCTION

Football is unquestionably the world’s most popular sport. Over the last century football has constituted itself as the world’s game [1]. In most countries football is the most socially and economically important of all professional sports [2].

Professional football clubs are unusual businesses, their performance judged on and off the field of play. They act as commercial unit, so their role is more important than other part of football industry. There is a growing body of evidence which shows football is the most favorite sport in Iran too [2].

The nature of club ownership in the world varies and in general is vastly different from privately owned franchises / teams typically of United States and Europe or the publicly (shareholder) owned clubs often found in Europe [3].

In the last two decades, many countries have launched extensive privatization programs. There is now a growing body of literature on the effects of privatization on productive efficiency [4].

Privatization of football clubs in developed countries began in the 1990s, because of solving financial problems such as cost increases, especially players’ fees and new fiscal resources needs.

Nowadays almost all of football clubs are as professional commercial corporations and are successful in sporting and commercial aims. Most British football clubs are constituted as companies, and several of the largest have been floated on the Stock Exchange, the first to do so being Tottenham Hotspur in 1983 [5]. But the vast majority of Iranian football clubs continue to be in government hands and it created more problems. No studies have analyzed football clubs’ privatization barriers in Iran till now, and an understanding of the football clubs’ privatization problems can assist the privatization process in football clubs and other sport clubs too. So the

* - Corresponding Author:

Hassan Gharekhani

E-mail: gharekhani@znu.ac.ir

purpose of this study was to identify and interpret the football clubs privatization barriers to answer this question, Why has Iran been pussyfooting on privatization of football clubs? With regarding to this division our research questions was : What is the most important Barriers of football club privatization in Iran?

METHOD

As there is currently no established theory regarding the football clubs privatization in Iran , this research was done on basis of exploratory –descriptive method so instead of hypothesis we have questions as mentioned before . Professional football clubs managers(primer league and first level), football federation top managers and some sport management and football experts familiar with clubs circumstance were selected as research sample.

Librarian and field study ways were used as data gathering methods. Questionnaire of Likert five choice spectrum was used for variables measurement (0/96 reliability). Freidman ranking test was used to determine the difference observed among various groups and $p < 0.05$ was considered statistically significant.

RESULTS

As Table 1 shows economic barriers (3.71) , significantly higher when compared with legal (2.92), structural(2.37) and managerial (1.00) , so null hypothesis didn't confirm(Table 1).

Table 1. Ranking four group of barriers

Challenges	Mean	Mean rank	Asymp.sig
Economical	6.372	3.71	.000 ***
Legal	5.038	2.92	
Structural	3.753	2.37	
Managerial	2.725	1.00	

*** Significant at 1%.



ONCLUSIONS

As the result has shown economical obstacles are the most important barriers of professional football clubs privatization .Donya Padash(2009) showed economic factors are the most important affecting factors on privatization of football clubs too[2]. Economy and financial issues affect out of football industry , so football clubs couldn't control them. maybe economic reforms such as structural , needs to solve football clubs economic problems.

Legal barriers was the second important obstacle for privatization professional football clubs. This result is similar to Donya Padash (2009) result ,she mentioned legal factors are the second important effective factors on football clubs privatization[2].

Noncommercial structure of football clubs was the most important structural barrier , this finding is similar to Barros(2006)finding about Portuguese football clubs, he concluded that , nonprofit structure of Portuguese football clubs is the most important obstacle of their economic development[1]. Also Guidio and Philippe (2003) recap Spanish football clubs structure isn't suitable and their development encounter with big challenge[3].

Managerial obstacles were less important barriers , this finding is similar to Donya Padash(2009) finding , she showed that managerial issue are not important affecting factors on football club privatization[2]. Maybe there will not serious problem on administration of privatization plan because managerial obstacles such as lack of serious determination for football clubs privatization , resistance of some governmental manager and plurality of decision making center and lack of sufficient coordination among them have same mean rank.

Solving economic problems of football clubs is the first step in barriers omitting , legal issues such as providing special laws and alteration them can provide infrastructures for successfully privatization plan , Also present football clubs structures should be changed to commercial because it helps increase of fiscal resource too .

REFERENCES

- 1- Barros .C.P(2006), The Financial crisis in Portuguese Football , Journal of Sport Economics, 7(1), 96-104.
- 2- Donyapadash(2009) Prioritization of the Factors Affecting Privatization in Sport Clubs: Comparison between AHP and TOPSIS (Emphasis in Football),The International Congress on Science and Football Tehran 1-3 November .
- 3- Guidio Ascari ,Philippe Gagnepain(2003).How Ineffecient are Football Clubs ? An Evaluation of The Spanish Arms Race. Department of Economics.University of Madrid. January.
- 4- Michie, J and Oughton, C (2005) The Corporate Governance of Professional -Football Clubs in England, Corporate Governance: An International Journal, 13:4:517-532.



- 5- Ramezani , Reza (2007), Sport Economy and Capitalization Research : Football Case , Sport Organization of Islamic Republic of Iran.
- 6- Morrow , S(2004) ,The Financial Crisis in Scottish Football , Scottish Affaires, 47,48-57.





The Relationship between Fund Managers and Rank League Football Clubs

¹Leila Godarzi, ²Hamid Ghasemi, ¹²Nastaran Salimi*

1. Department of Physical Education and Sport Sciences, Islamic Azad University, Karaj, Iran.
2. Department of Physical Education and Sport Sciences, Payam Noor University, Tehran, Iran
3. Department of Physical Education and Sport Sciences, Alborz Campus, Tehran University, Tehran, Iran.

INTRODUCTION

Behind the growth of this industry in the world is paying more attention to the industry notes (2, 3). It is also one of the most important steps towards modern football, you reintegrate the country into the club since the original nuclear club as a player, coach, manager, etc. Considering the current situation of the country's football clubs current trends never can hope to progress regularly and consistently clubs and thus Football found (4, 5) the purpose of this study was to examine the relationship between fund managers and rank club football league in the country, and the questions in the survey will be answered is whether the funds management and rank each team in the Premier League standings relationship exists?

METHOD

Methods: In this descriptive-comparative study of strategy and the route survey, and the purpose of the data collection field is applied. Researchers used the tool tries to determine the relationship between some measures of self-made Czech list management team has been with the station. The research to the Premier League football clubs (18 teams: Sepahan, Tractor, independence, Saba Qom, Tehran, oil, steel, Damash Gilan, Saipa, MES, Abadan, railways, Persepolis, thank Dawn Steel Khuzestan, Bandar Anzali sailor, the city of Tabriz, Shahin Bushehr, copper), which is a total of 18 teams in the league 12 is formed. For example, all of the samples were used for all 18 teams in the league currently consists of twelve. The best way to gather information regarding the purpose of the study was to identify the Czech list. For this purpose, Czech researcher made a list of 25 questions with 5 small-scale producers, each subscale consists of a number of questions and answers on the range 2 option (yes / no), respectively. In this study, descriptive statistics (mean, standard deviation, and percent) to describe the variables and inferential statistics ks test was used to evaluate the distribution. ANOVA test was used to test the research hypotheses. Tukey's test was used to assess differences between groups. In addition to the analysis of batch data were used SPSS 17 software.

RESULTS

Test Kolmogorov - Smirnov normality assumption Czech components listed in 5 planning, human resource management, financial resource management, management of physical resources and infrastructure hardware clubs, monitoring and evaluation mechanism is confirmed, therefore, to examine the hypothesis Parametric statistical analysis (ANOVA) was used. ANOVA tests on different facets of football clubs in the Premier League with a place in the team standings in the variable confirmed plan.



ANOVA tests on different facets of football clubs in the Premier League with a place in the team standings in the range of human resource management rejected. Tukey test showed that none of the groups did not differ in the range of human resource management.

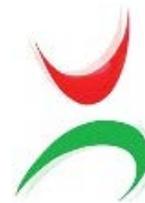
CONCLUSIONS

Planning, human resource management, management of financial resources, physical resources and hardware management, and monitoring and evaluation mechanisms to determine the status of clubs such as Premier League clubs are structured. standings significant differences exist that these findings indicate that the funds managed under review could play a role in the position of the teams is because of all these 4 variables at Group 1, which includes teams of 1, 2 and 3 are a group of 6 that included teams.

REFERENCES

1. Salimi.N Structural Analysis of the Premier League football clubs and comparison with selected countries, physical education and sport science Management Thesis, University of Shomal. 2010.
2. Elahi A. Review the performance of the professional football league Islamic Republic of Iran and compare it with the Japan League, . physical education and sport science Management Thesis, University of Tehran. 2004
3. Elahi A, et al Check the status of football stadiums in the country compared to European standards, Harakat, Motion No. 19: 74-68, 2003
4. Khabiri M, Comparison of the club's professional league and UEFA criteria selected clubs from Japan, Turkey, UAE and South Korea ", Institute of Physical Education and Sports Science, 2003
5. Askarian F, et al, Economic situation of sports industry in the years 1377 and 1380 ", Journal of Harakat, No. 24: 43-25





Relationship between Conflict Management and Organizational Effectiveness of Youth and Sport Office Directors of Golestan Province

¹Mohammad Ali Nodehi*, ²Anneh Mohammad Gharajeh

1. Department of physical education and sport sciences, Gorgan branch, Gomishan center, Islamic Azad university, Gomishan, Iran.
2. Department of physical education and sport sciences, Gorgan branch, Gomishan center, Islamic Azad university, Gomishan, Iran.

INTRODUCTION

The aim of this study was to examine relationship between conflict management and organizational effectiveness of youth and sport office directors of Golestan Province.

METHOD

This research was a descriptive and correlation method that carried out as a survey research. Survey research used to examine, explore, describe and explain the features of a statistical population (3). Research population was directors and presidents of sport commissions of headquarters and undertakers of sport councils. In this descriptive study statistical society consisted of managers of General Administration of Sports and Youth and heads of sports councils of Golestan province (N=71). Due to the limited number of study population, the subjects of the study were considered equal to the number of society. Data was collected in a field method and by three questionnaire include managers personality traits, standard Robins’s conflict management questionnaire ($r= 0/83$) and Hamidi’s organizational effectiveness($r= 0/88$).

Descriptive statistics (mean, tables) was reported and statistical analysis was performed by Pearson correlation coefficient and Kolmogorov-Smirnov test

RESULTS

Findings showed that there was significant relationship between conflict management as well as problem-solving and non-opposing strategies and effectiveness of youth and sport office directors, but there was not significant relationship between control strategy and effectiveness of youth and sport office directors of Golestan province.

Table 1. Distribution of research subjects by field of study

Subjects	Managers of Sports and Youth office		Heads of sports councils		Total	
	N	Percentage	N	Percentage	N	Percentage
Physical Education	10	41.66 %	16	34.04 %	26	36.62 %
Non Physical Education	14	58.34 %	31	65.96 %	45	63.38 %
Total	24	100	47	100	71	100

Table 2. Relationship between conflict management of sport & youth with organizational effectiveness

Predictor variables	Criterion variables	Confidence level	df	Coeffecient of correlation
Conflict management	effectiveness	0.001	0.01	0.62
Problem-solving style	effectiveness	0.001	0.01	0.54
None-opposing style	effectiveness	0.001	0.01	0.46
Control style	effectiveness	0.45	0.01	-0.05



CONCLUSIONS

Based on this result, choosing controlling strategy can't enhance the effectiveness of Golestan youth and sport office directors. According to obtained results for enhancing organizational effectiveness, youth and sport office directors can lead to solution-oriented and avoidance strategy by designing an educational program in order to employ management skills within physical educations managers.

REFERENCES

1. Henry, O. Organisational Conflict and its Effects on Organisational Performance. *Research Journal of Business Management*. 2009; 2 (1): 16-24.
2. Darling, J., Walker, W. Effective Conflict Management: Use of the Behavioural Style Model, *Leadership and Organisation Development Journal*, 2007; 22 (5):230-242.
3. Sarmad, Z, Bazargan, A, Hejazi, E. *Planning of research method in behavioral sciences*. Fifth edition, Agah pub, 2001.
4. Hensel , Paul R and et al. *Conflict Management of Ripairian disputes*. Florida state university, Tallahassee.USA; 2006.
5. kreitner , Robert & kinki anglo. *Organizational behavior* ,5 th ED MC grow –hill pp:36-58; 2004.





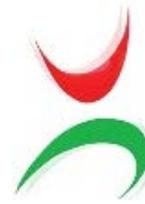
Exercise Physiology



Annals
of
Sport
Applied Science



Annals
of
Sport
Applied Science



Effects of Two Different Resistance Training Programs on Muscular Strength, Endurance and Body Composition

¹Abbas Asadi*, ²Hamid Arazi,

1. PhD Candidate, Department of Exercise Physiology, University of Guilan, Rasht, Iran
2. PhD, Department of Exercise Physiology, University of Guilan, Rasht, Iran

INTRODUCTION

Resistance training is a modality of exercise that has grown in popularity over the past two decades, particularly for its role in improving athletic performance by increasing muscular strength, power and speed, hypertrophy, local muscular endurance, motor performance, balance, and coordination (1,2). Therefore, the purpose of this study was to examine the effects of 8 weeks condensed multiple-set system and circuit multiple-set system on strength, endurance, body composition and arm and thigh circumference in healthy males.

METHOD

Twenty seven healthy males volunteered to participated in this study and assigned into three groups; according to; condensed multiple-set group (COM; n = 9), circuit multiple-set group (CIM; n = 8) and control group (CON; n = 10). Pre and post 8 weeks of training, one repetition maximum (1RM) and muscle endurance (60% of 1RM) for leg press and bench press, body weight, arm and thigh circumference and body composition were measured.

Corresponding Author:

Abbas Asadi

E-mail: Abbas_asadi1175@yahoo.com

RESULTS

No significant differences in body mass, arm and thigh circumference and muscular strength for the bench press exercise were observed for any group during the 8 weeks of training period ($p > 0.05$). A significant increase in muscular strength for the leg press exercise was observed for COM after 8 weeks of training ($p < 0.05$). Both the COM and CIM groups showed significant improvement compared with pre training and CON in muscular endurance for the bench press and leg press exercises ($p < 0.05$) (Figure 1).

Figure 1

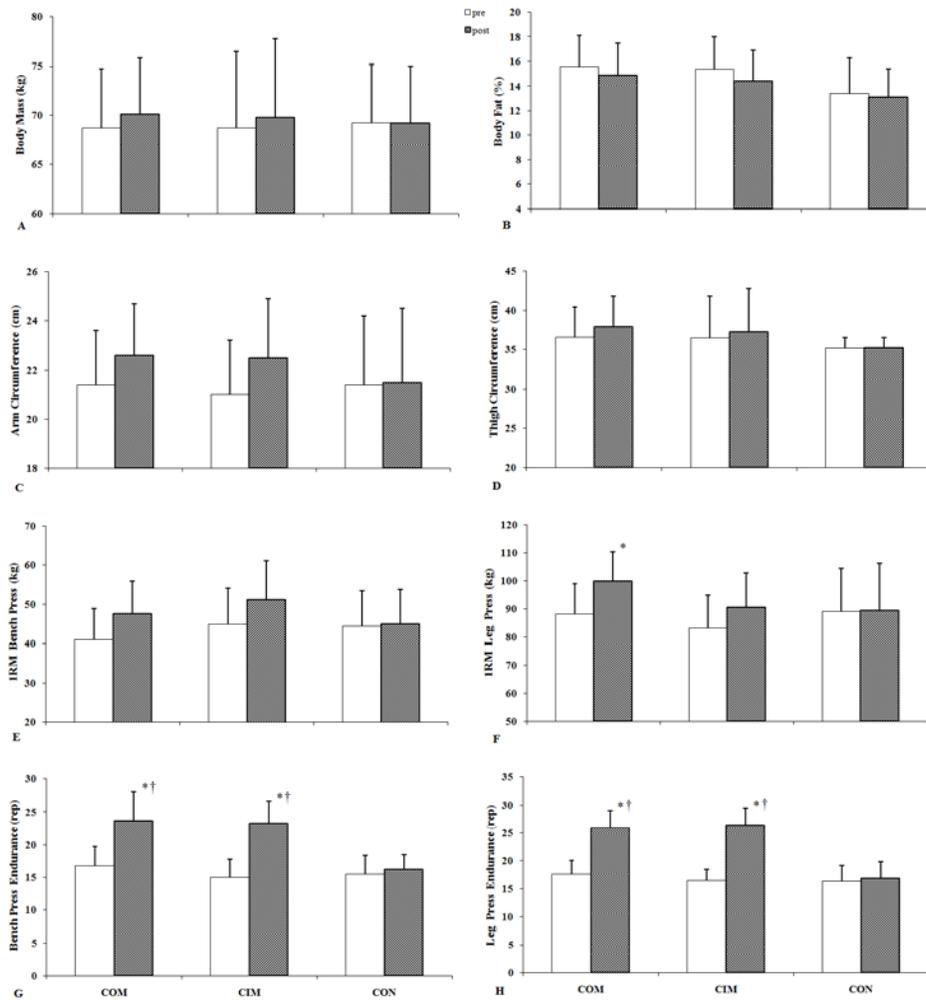


Figure 1. Changes in body mass (A), body fat (B), arm circumference (C), thigh circumference (D), 1RM bench press (E), 1RM leg press (F), bench press endurance (G) and leg press endurance (H) pre and post 8 weeks of training. Values are mean \pm SD.

* Significantly different ($p < 0.05$) from the corresponding pre training value.

† Significantly different ($p < 0.05$) from the corresponding CON value.



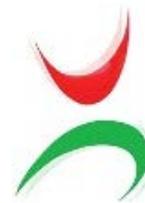
CONCLUSIONS

In summary, these data will enable us to give more general recommendation for the use of COM model in the development of muscular strength, arm and thigh circumference and body composition and CIM model in the development of muscular endurance.

REFERENCES

- 1) Kraemer WJ, Ratamess NA. Physiology of resistance training: current issues. *Orthop. Phys. Therapy Clin. North Am.: Exerc. Tech.* 9:4. Philadelphia: W. B. Saunders 2000, pp. 467– 513.
- 2) Fleck SJ, Kraemer WJ. *Designing Resistance Training Programs*, 3rd Ed. Champaign, IL: Human Kinetics, 2004.





The Effect of Different Intensities in Short- and Long-Term on Nitric Oxide in Obese Men

¹Hamid Aghili Nasab, ¹Masuod Nikbakhat , ¹Saeid Shakeryan ,
²Mehri Ghafourian , ³ Mehrnaz Moradi

1. Department of Physical Education and Sport Sciences, Shahid Chamran, Ahvaz, Iran.
2. Department of Immunology, Jundishapur University of Medical Sciences, Ahvaz, Iran
3. Department of Physical Education and Sport Sciences, Shoushtar Branch, Islamic Azad University, Ahvaz, Iran.

INTRODUCTION

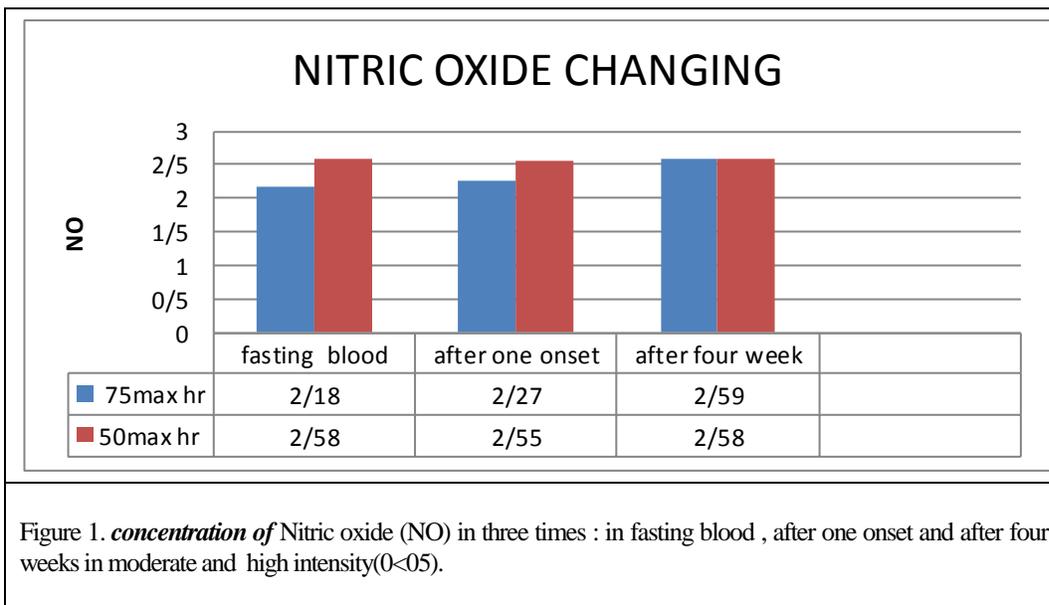
Endothelial cells release chemical mediator that cause vasodilation and vasoconstriction (Libis, 2005). Endothelium derived NO is produced by the endothelial nitric oxide synthase (eNOS). This enzyme synthesis NO from L-arginine. Nitric oxide (NO) the most potent vasodilator release from endothelium. NO immediately propagated from endothelium into smooth muscle cells and cause muscle relaxation. Obesity has an important role in Atherosclerosis, by decreasing in NO bioavailability (Williams et al. 2002). Watts et al. (2004) indicate in their study that flow mediated – dilation in obese adolescence (14.3 ± 1.5), after eight weeks of circuit training significantly increased when compared to control group ($5.3 \pm 0.9\%$ to $8.8 \pm 0.8\%$, $p < 0.05$). This augment accompanied by NO production. In this surveys on obese people had lesser intention to different exercise intensities so the aim of this study is examine different intensities in obese and the effect of these intensities on NO production.

METHOD

20 volunteer workers from Foolad Khuzestan company participated in this survey. (mean [SD] height 172.5±2.23 , weight 82.69±3.6, BMI 30.9±3.4). This study consisted of continues – running training. Intensity of training regulated by polar heart rate monitor (50, 75 maximum heart rate).NO concentration measured with the use of ELISA KIT. We used independent –t-test to comparison two groups.

RESULTS

After one acute exercise session of aerobic exercise there was no significant change in NO concentration between two groups with the use independent t – test (0.63). Serum concentration of nitric oxide in high intensity group was significantly higher after four weeks of exercise (p =0/004) and when compared with moderate intensity group (p =0/004).



CONCLUSIONS

In this study NO concentration accidentally was higher in moderate intensity group. Significant differences were observed only after four weeks of continues – running training between two groups. This finding in agreement with Arvola et al. (1999), Clerkson et al. (1999), Roberts et al. (2002), Watts et al. (2004), Erich et al. (2008), Sherman et al. (2010). Also this finding is in contrast with the study of Goto et al. (2007, 2008). eNOS activity concomitantly induced by shear stress in order to maintain synthesis of NO in the base line.

Shear stress forces created by gliding of blood flow on the layer of vessel (endothelium). Shear stress probably the most important factor induced NO in the natural condition. During psychical activity shear stress senses by integrins placed in endothelial in basal membrane. This mechanism lead to Phosphorylation of PKB and increase eNOS enzyme activity. Goto et al. (2007) indicate significant augment in NO concentration in moderate intensity exercise in healthy participant. They declared that augmented oxidative stress in high intensity cause insignificant change in NO synthesis, although oxidize LDL in which one of the main component of oxidative stress and indicate can cause Dysfunction in NO formation and inactive NO production indirectly was insignificant in their study. In our study we asked participant to continue their activity until fatigue threshold in order to decrease the side effect of oxidative stress during Physical Activity also some studies like Ignaro et al. (2007) reported NO augmentation in high intensity in spite of increase oxidative stress and its side effect. Survey of Erich et al. (2008) Indicate that high intensity training improve endothelial more than continues – running training with moderate intensity. It seems that exercise program with high intensity lead to different tension of shear stress on blood vessel wall and create different molecular responds .They suggest that the effect of high intensity exercise mediated by NO production.

REFERENCES

- 1-IL Williams." **Obesity, atherosclerosis and the vascular endothelium: mechanisms of reduced nitric oxide bioavailability in obese humans**". International Journal of Obesity (2002) 26, 754–764.
- 2-Katie Watts." **Exercise Training Normalizes Vascular Dysfunction and Improves Central Adiposity in Obese Adolescents**". Journal of the American College of Cardiology Vol. (2004) 43, NO. 10:1822 -1827
- 3-Goto C." **Acute moderate-intensity exercise induces vasodilation through an increase in nitric oxide bioavailability in humans**". A m J Hypertens (2007)20(8):825-30.
- 4-Chikara Goto." **Effect of Different Intensities of Exercise on Endothelium-Dependent Vasodilation in Humans Role of Endothelium-Dependent Nitric Oxide and Oxidative Stress**". *Circulation*. (2008) 2003; 108:530-535.
- 5-Louis J. Ignarro a," **Nutrition, physical activity, and cardiovascular disease: An update**". Cardiovascular Research (2007). 73 : 326–340





The Effect of 8 Weeks Combined Exercise (Aerobic - Resistance) on Serum IL-18 Levels in Obese Men

¹Iman Zakavi*, ²Eskandar Hossainpoor, ³Banafshe Bizahni, ⁴Reza Baharlooie, ⁵Mozhgan Banihashemi Emamgaysii, ⁶Habib Valizadeh

1. MSc, physical education and sports sciences, Payam Noor University, Iran.
2. PhD student, Faculty of Physical Education and Sport Sciences, University of Tehran, Tehran. Iran.
3. MSc, Jundishapur University of Medical Sciences, Khuzestan, Iran.
4. MSc, Faculty of Physical Education and Sport Sciences, University of Khorasgan, Isfahan. Iran.
5. MSc, Faculty of Physical Education and Sport Sciences, University of Khorasgan, Isfahan. Iran.
6. MSc, Faculty of Physical Education and Sport Sciences, Central Tehran Branch, Islamic Azad University, Tehran. Iran.

INTRODUCTION

IL-18 is a proinflammatory cytokine with important regulatory functions in the innate immune system and increases the production of adhesion molecules, the detection of nitric oxide synthesis. It also plays a crucial role in vascular pathology and is an index to predict cardiovascular mortality (1). As Physical activities lead to obese decrease ;doing regular exercises causes decreasing of the released inflammatory signs from fat tissue and decreases the danger of getting acute disease (2). Most studies of IL-18 have pointed decreasing effect of aerobic exercise and less pointed to the lack of its impact (3). The number of researches which have studied the effect of resistance training on obese men specially about IL-18 are few. For example Stansvold and coworkers studied the changes of IL-18 following resistant training in

Corresponding Author:

Iman Zakavi

E-mail: Iman.Zakavi@yahoo.com

Syndrome Metabolic people (4) and Kohut & associates is a training and flexibility / resistance levels of IL-18 were examined in older adults (5).

Related to the obesity and IL-18 relationship and their subtle inflammatory mediators in causing cardio-vascular changes, and mental relations with obesity and inconstant studia antea events; ratio autem huius studium The Effect of 8 weeks Combined exercise (aerobic - resistance) on serum IL-18 levels in obese men.

METHOD

The participants of the study, were 30 obese men with a mean age (control group: 27.5 ± 5.8 , the experimental group: 28.4 ± 4.9), body weight (control group: 95.5 ± 8.9 experimental group: 93.4 ± 8.3), mean height (control group: 176 ± 5 , the experimental group: 175 ± 6.6) and body mass index greater than 30. To select obese healthy people with the ability to participate in the exercises, Parkyv questionnaire (questionnaire prepared for the onset of physical activity) was used. Then randomly divided into two experimental groups (n = 15) and control (n = 15) groups. Empirical experimental group did the combined exercise program (aerobic exercise such as running on a treadmill for 20 minutes at 60-70% of maximal oxygen uptake (VO₂max)) and resistance exercise with 50% of one repetition maximum (1RM) with (10 reps per move for 2 sets) for 8 weeks (three sessions per week. To calculate (1RM) the formula $[\text{weight (kg)} \div 1.0278 - 0.0278 \times (\text{number of repetitions})]$ values was used. Blood samples were collected in two stages, 48 hours before and after exercise for measurement of serum IL-18 levels. All variables, including age, weight, height gauge brands using SECA, weight, body fat percentage, BMI, and VO₂max test device BIOSPACE In Body marking beam were measured. To determine the concentration of serum IL-18 kit made in China under license EASTBIOPHRM America was used. Descriptive statistic was used to investigate subjects demographic features, and all variables, after testing the normality, of data distribution, Kolmogorof Smirnof used and for the intra comparison paired t test and to compare intergroup in depended t test was used.

RESULTS

Table 1 shows the changes of different variables between the groups. Results indicated amounts of weight, body fat percentage, BMI, VO₂max and serum IL-18 combination of exercise (aerobic - resistance) in the comparison between groups (t-test) and within group (paired t-test) were significantly different ($p \leq 0.05$). Figure 2. Mean changes in serum IL-18 (pico grams per milliliter) in the experimental and control groups after eight weeks of combined exercise (aerobic - resistive) shows significant changes in inter-group comparison ($p \leq 0.03$), and compared between groups had a significant reduction ($p \leq 0.01$).

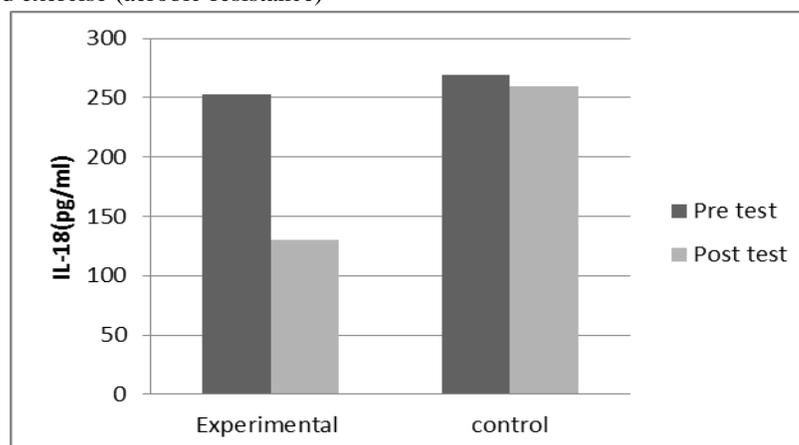


Table 1. Study variables mutatio, scilicet de pretest ad posttest in experimentis group et control group

**P	*P	Post test standard \pm mean deviation	Pre test standard \pm mean deviation	group	Statistic Index
**0.000	0.900	23.83 \pm 15.49	83.02 \pm 15.45	Experimental	(Kg)Weight
	*0.000	80.29 \pm 15.28	85.53 \pm 15.59	control	
**0.000	0.671	35.532 \pm 2.405	3.506 \pm 2.465	Experimental	Fat (%)percentage
	*0.000	32.32 \pm 2.61	34.74 \pm 2.71	control	
**0.000	0.090	30.478 \pm 3.203	30.404 \pm 3.198	Experimental	(kg/m ²)BMI
	*0.000	29.14 \pm 3.41	31.046 \pm 3.55	control	
**0.012	0.236	24.76 \pm 2.824	25.56 \pm 1.33	Experimental	VO2max (ml/kg/min)
	*0.033	30.08 \pm 1.37	26.92 \pm 4.62	control	
**0.01	0.15	259.37 \pm 47.34	268.75 \pm 55.39	Experimental	IL-18(pg/ml)
	*0.03	130.32 \pm 37.01	253.15 \pm 57.86	control	

* significant changes in comparison inter-group secundum (paired t-test) ($p \leq 0.05$), ** significant changes in comparison between group secundum (t-test) ($p \leq 0.05$).

Figure 1- comparing the mean change 18 IL- (pico grams per milliliter) in the experimental and control groups after 8 weeks of combined exercise (aerobic-resistance)



CONCLUSIONS

According to this study, body weight, body fat percentage, BMI and IL-18 following an 8-weeks combined exercise (aerobic - resistance) significantly declined and increased VO2max significantly increased. Confirming the present study results, in a study, after 38 weeks of diet and weight loss in obese subjects, serum IL-18 levels were significantly decreased (6). Kohut and colleagues in a study of exercise flexibility / resistance levels of IL-18 for 10 months did not change in older adults (5). Stensvold and colleagues also showed that 12 weeks of resistance training did not induce significant changes in IL-18 (4) that the findings are inconsistent. Consistent with previous studies, this study might be due to either Countercurrent intensity,



duration and type of exercise depends. Mainly the aerobic training studies pointed out to the declining effect of this exercise on serum levels of IL-18 (3). The results showed that the combination of exercise (aerobic - resistance) for 8 weeks decreased serum levels of IL-18 in the obese men .

Keywords: Combined exercise, IL-18, obesity

REFERENCES

1. Zirlik A, Abdullah SM, Gerdes N, MacFarlane L, Schonbeck U, Khera A, et al. Interleukin- 18, the metabolic syndrome, and subclinical atherosclerosis: results from the Dallas heart study. *Arterioscler Thromb Vasc Biol.* 2007; 27(9): 2043-9.
2. Colbert LH, Visser M, Simonsick EM, Tracy RP, Newman AB, Kritchevsky SB, et al. Physical activity, exercise and inflammatory markers in older adults: findings from the Health, Aging and Body Composition Study. *J Am Geriatr Soc.* 2004 Jul; 52(7):1098-104.
3. Christiansen T, Paulsen SK, Bruun JM, Pedersen SB, Richelsen B. Exercise training versus diet-induced weight-loss on metabolic risk factors and inflammatory markers in obese subjects: a 12-week randomized intervention study. *Am J Physiol Endocrinol Metab.* 2010 Apr;298(4):E824-31.
4. Stensvold D, Slørdahl SA, Wisløff U. Effect of exercise training on inflammation status among people with metabolic syndrome. *Metab Syndr Relat Disord.* 2012 Aug;10(4):267-72.
5. Kohut ML, McCann DA, Russell DW, Konopka DN, Cunnick JE, Franke WD, et al. Aerobic exercise, but not flexibility/resistance exercise, reduces serum IL-18, CRP and IL-6 independent of beta-blockers, BMI and psychosocial factors in older adults. *Brain Behav Immun.* 2006 May;20(3):201-9.
6. Kim JA, Park HS. White blood cell count and abdominal fat distribution in female obese adolescents. *Metabolism.*2008; 57(10): 1375-1379.





The Effect of 12 Weeks of Aerobic Exercise and Consumption of Nigella Sativa with Honey on Interleukin-6 in Elderly men

¹Reza Baharlooie*, ²Iman Zakavi, ³Maryam Panahizadeh,
⁴Mohamad Pakdel

1. MSc, Faculty of Physical Education and Sports Sciences, University of Khorasgan, Isfahan. Iran.
2. MSc, physical education and sports science, Payam Noor University, Iran.
3. MSc, Jundishapur University of Medical Sciences, Khuzestan, Iran.
4. MSc, physical education and sports sciences, Payam Noor University, Iran.

INTRODUCTION

Interleukin-6 (IL-6), is a proinflammatory cytokine circulating in the blood flow with a higher rate in elderly than in younger people. Observational studies have shown that among older people, increasing of physical activity has caused a reduction in IL-6 levels. In aerobic activity intervention studies, decreased in IL-6 has been observed (1). Nigella Sativa ², a plant that treat many ailments such as colds, asthma, heart disease, digestive problems, diabetes, infections and many other items has been prescribed. In a number of articles of anti-inflammatory it’s strong and damper anti-inflammatory impact and safety has been noted, which works by inhibiting leukotrienes, inflammatory mediators and Postaglandies. Different properties of honey in eliminating a big range of microorganisms, anti-inflammatory effects and decreasing inflammation had caused its application in lots of medical fields. Studies have shown that using Nigella Sativa and honey could decrease infection and inflammation (2). Thus, according to separate effects of aerobic exercise, Nigella Sativa and honey on inflammation, in this study for

Corresponding Author:

Reza Baharlooie

E-mail: : bahar_looei@yahoo.com

the first time a combination of aerobic exercise and consumption of black seed and honey on elderly men was compared and investigated.

METHOD

This quasi-experimental and applied research was done on 60 elderly men with a mean age, height, weight and body mass index (BMI), respectively, 65/8, 159/8, 72/95 and 29/32. The subjects were randomly divided into 4 groups of 15 subjects (three experimental groups and one control group). The first group carried out aerobic exercise (walking activities) 3 times a week. In the first sessions of the first month after 2 to 4 minutes warming up, did a walking activity for 20 minutes, in the second month 25 minutes and the third one did it for 30 minutes. The second group, consumed 3 grams Nigella powder with a tea spoon honey for 12 weeks, 3 sessions a week. The third group did it in a combined form (Aerobic training and consuming Nigella and honey). The control group received no intervention but were followed. Blood samples were collected in two stages, before and 48 hours after completion of the last training session and consumption of Nigella and honey to measure IL-6 level. Statistical analysis done using the Kolmogorov-Smirnov test, descriptive, one-way analysis of variance (Anova) and pursuit Ben – Times test used to compare significance of both groups, at ($P \leq 0/05$).

RESULTS

About the indexes of table 1, the result of one way variance analyze on the difference of scores showed that doing aerobic exercise, consuming Nigella with honey and a combination of both, insignificantly decreases the weight and significantly decrease body mass index (BMI) and the IL-6 at ($P \leq 0/05$).

CONCLUSIONS

The results showed that aerobic training in older men and consumption of Nigella with honey has a significant impact on reducing the amount of IL-6. These results are consistent with findings by Castellano et al. (3) and non-aligned with the findings of Schulz and colleagues (4). Prolonged exercise can transform the regulation of inflammation. In this case the first mechanism is that aerobic training can reduce Gene Expression and Serum levels of leukocytes adhesion molecules and control Endothelial monocyte cells reaction and finally lead to reduction of Cytokines. Since Nigella Sativa is beneficial in reducing fat and weight it can be effective in reducing the levels of inflammation (5). As Nigella contains Thimocuin which is an anti-inflammatory and antioxidant material it could be concluded that 12 weeks aerobic training along with consuming Nigella with honey could be effective in reducing the inflammation of elderly men.



Table 1- variables changes from pretest to posttest in all four study groups

Value s of 4 group s	Change s percent s	Score differences	posttest standard±mean deviation	pretest standard±mean deviation	group s	variables
0.08	0.18	0.12±1.35	71±10.50	70.87±9.9	first	Weight(kg)
	2.35	-1.77±2.9	73.88±4.7	75.66±6.02	second	
	0.93	83.23±15.49	66.87±6.9	67.5±9.1	third	
	4.32	-3.38±2.38	74.23±15.49	77.8±7.7	forth	
*0.00 1	0.34	-0.09±0.66	29.47±2.23	29.37±2.67	first	BMI(kgm ²)
	9.34	2.73±1.53	26.47±1.61	29.2±4.6	second	
	1.92	-0.54±0.1	27.48±3.4	28.02±3.5	third	
	10.35	-3.18±0.66	27.54±3.8	30.72±2.7	forth	
0.005 *	9.71	17.87±26.64	202±38.93	184.12±54.43	first	IL- 6(pg/ml)
	14.76	27.62±22.57	159.5±57.2	187.12±57.9	second	
	2.98	-4.87±19.18	158.5±46.44	163.37±51.58	third	
	25.52	47.33±20.33	138.11±50.27	185.44±44.9	forth	

* Significant at the ($P \leq 0/05$) level, Group I: control, Group II: aerobic exercise, group III: consumption of Nigella with honey, Group IV: Aerobic exercise and consumption of Nigella with honey

REFERENCES

1. Azad A. The study of the effect of World Health Organization recommended physical activity program on C-reactive protein and interleukin-6 in middle-aged men. *ISMJ*. 2013; 16(1): 49-60
2. Nil forush zadeh M A, Hejazi S H, Zarkob H, Shirani bidabadi L, Asghari gh, Hossaini S M, Haftbaradaran E, Jafari F. Comparison of the effect of intralesional injection with local administration of Nigella sativa glucantim, honey base. *Journal of Skin and Leshmaniasis*. summer 2010; 2: p.51-59. [Article in Farsi]
3. Castellano V, Patel D. I, White L. J. Cytokine Responses to Acute and Chronic Exercise in Multiple Sclerosis. *J Appl Physiol* (1985). 2008; 104(6): 1697-1702.
4. Schulz KH, Gold S M, Witte J, Bartsch K, Lang U E, Hellweg R, Reer R, et al. Impact of Aerobic Training on Immune-Endocrine Parameters, Neurotrophic Factors, Quality of Life and Coordinative Function in Multiple Sclerosis. *J Neurol Sci*. 2004.
5. Hajra N. Nigella sativa: the miraculous herb. *Pak. J. Biochem. Mol. Biol.*, 44 (2011), pp. 44–48.





Effects of a Short-Term Circuit Resistance Training with and without *Crocus Sativus* (Saffron) supplementation on Plasma Viscosity and Fibrinogen in young male college students

¹Abbass Ghanbari-Niaki, ²Ayoub saeidi *

1. PhD in Exercise Physiology, Professor of Exercise Biochemistry Division, Faculty of Physical Education and Sport Sciences, University of Mazandaran, Babolsar, Mazandaran, Iran.
2. PhD student in Exercise Physiology, Exercise Biochemistry Division, Faculty of Physical Education and Sport Sciences, University of Mazandaran, Babolsar, Mazandaran, Iran.

INTRODUCTION

Thrombus Atherosclerotic plays an important role in cardiovascular disease and peripheral arterial systems and is one of the effective factors in mortality due to cardiovascular diseases of industrialized world (1). Change in levels of blood proteins such as albumin and fibrinogen increases according to the shape and size of the protein, so that the relationship between high levels of fibrinogen and increase in blood and plasma viscosity is well understood (2). Recent evidence has shown the role of fibrinogen in pathogenesis of atherosclerosis vascular diseases and possibly as a risk factor for cardiovascular diseases (3). there is little information about the effects of sport activities especially resistance activities on blood viscosity, plasma and fibrinogen. The saffron plant, being interested in Iran and other nations has been known as an expensive flavor for all tastes (4). In is said that saffron has antioxidant properties that increase Glutathione level and prevent lipid oxidation (5). Thus considering the influence of resistance exercises on permanent increase in blood viscosity and plasma induced by increase in fibrinogen, Albumin, total protein and hematocrit following resistance activities, the aim of this was to examine the effect of circuit resistance exercises (12 stations) with taking various parts of saffron (upper part, bottom part and petal sweat of saffron) on Viscosity and Fibrinogen.

METHOD

Corresponding Author:

Ayoub saeidi

E-mail: saeidi_as68@yahoo.com

44 healthy untrained men after homogenization and according to individual characteristics were divided into 4 groups of water – training (n=11), petal – training (n=10), bottom part flower – training (n=11) and upper part flower – training (n=12). The resistance training protocol consisted of 12 stations (the duration of each station 30 sec, with the intensity of 40% 1RM) for 2 weeks (5 sessions in each week). 500 mg saffron was daily taken in 2 times of morning and immediately after training. The blood samples were drowning before and 48h after last training session and used for analyzing of fibrinogen and viscosity .Data analysis was done using SPSS software version 20 . normal distribution of data was confirmed using Kolmogorov – Smirnov test . Repeated measures (4×2) ANOVA was used to analyses data. Independent T – test was used to find inter – group changes. The significance was considered (0.05).

RESULTS

In evaluating of between group changes, a significant deference was observed in the viscosity values in both groups of water – training and upper part flower – training (p= 0.037), but there was not any significant deference among other groups. Also, Fibrinogen values showed a significant deference between petal – training and upper part flower – training groups (p=0.04), water – training and upper part flower – training groups (p=0.014), but any deference was not observed among other groups.

Table 1. Fibrinogen and viscosity changes after resistance training with and without supplemental saffron. mean \pm SD.

upper part flower – training		bottom part flower – training		petal – training		water – training		
post	pre	post	pre	post	pre	post	pre	
1/67 \pm 0/03*	1/71 \pm 0/03	1/67 \pm 0/04	1/69 \pm 0/04	1/70 \pm 0/03	1/70 \pm 0/03	1/66 \pm 0/03*	1/70 \pm 0/02	viscosity (mps)
237 \pm 26/2*	283/4 \pm 33/7	258 \pm 29	268/6 \pm 26/5	285/5 \pm 27/5*	273/1 \pm 27/08	242/8 \pm 27/5*	273/4 \pm 29/88	fibrinogen (mg/dl)

CONCLUSIONS

Finding of the present study indicated that two – weeks short – term circuit resistance exercises caused 10 percent reduction pf plasma fibrinogen and 2 percent reduction of plasma viscosity in proportion to pre-test . upper part of saffron supplement used with circuit resistance caused 16 and 2.5 percent post – test reduction respectively in fibrinogen and plasma viscosity . However , there was no significant difference between various parts of saffron with resistance exercises , but upper part of saffron had more effects in comparison with sweat and bottom part of it and resulted in doubling the effects of circuit exercises.

Considering the results of this study , we got the points that saffron supplement use combined with two – weeks circuit resistance exercises can reduce cardio – vascular risk

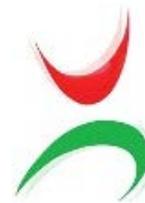


factors (fibrinogen and plasma viscosity) , although upper part of saffron supplement in combination with saffron caused more reduction of these risk factors.

REFERENCES

1. Organization WH. Cardiovascular diseases. Fact sheet No 317. 2011.
2. El-Sayed MS, Ali N, Ali ZE-S. Haemorheology in exercise and training. *Sports Medicine*. 2005;35(8):649-70.
3. Varlet-Marie E, Gaudard A, Monnier J-F, Micallef J-P, Mercier J, Bressolle F, et al. Reduction of red blood cell disaggregability during submaximal exercise: relationship with fibrinogen levels. *Clinical hemorheology and microcirculation*. 2003;28(3):139-49.
4. Rios J, Recio M, Giner R, Manez S. An update review of saffron and its active constituents. *Phytotherapy Research*. 1996;10(3):189-93.
5. Kianbakht S, Mozaffari K. Effects of saffron and its active constituents, crocin and safranal, on prevention of indomethacin induced gastric ulcers in diabetic and nondiabetic rats. *Journal of Medicinal Plants*. 2009;8(Supplement 5):30-8.





The Effects of Ginger Extract on Biochemical and Functional Symptoms of Delayed Onset Muscle Soreness

¹Khadijeh Hoseinzadeh *, ²Hamid Alizadeh, ³Farhad Daryanoosh,
⁴Parvin Javad Baghdasar

1. Department of Physical Education and Sport Science, Shiraz University, Shiraz, Iran.
2. Department of Physical Education and Sport Science, Mazandaran University, Mazandaran, Iran.
3. Department of Physical Education and Sport Science, Shiraz University, Shiraz, Iran.
4. Molavai Laboratory, Shiraz, Iran.

INTRODUCTION

Delayed onset muscle soreness (DOMS) is an unfavorable and unsightly feeling with pain and muscle stiffness consequence of strenuous unaccustomed physical activity chiefly eccentric exercise. Numerous treatment strategies include nutritional supplements, herbal remedy, pharmacological treatments using non-steroidal anti-inflammatory drugs (NSAIDs) has been used (1-3). *Zingiber officinale*, commonly known as ginger has shown analgesic and anti-inflammatory effects. Ginger inhibits the production of immune-system components called cytokines cause inflammation (4,5).

METHODS

Thirty six non-athlete college students (women) volunteered to participate in this study and divided to three groups randomly including: GIBE (Ginger Intake Before Eccentric exercise, n=12), GIAE (Ginger Intake After Eccentric exercise, n=12), and PL (placebo, n=12). The exercise consisted of a 20 minute step test using a 46cm step at a rate of 15 steps per minute (6). Subjects consumed one capsule containing either 60 mg of ginger extract (equivalent 2 g dried ginger) or 2 g of lactose (placebo) with 250 ml of water. Subjects ingested second capsules immediately after exercise. IL-6 and CPK (in blood samples), pain, range of motion of hip joint (ROM), thigh muscle circumference, thigh strength were measured before exercise and 1, 24 and 48 hours after exercise.

¹Corresponding Author:
Khadijeh Hoseinzadeh
E-mail: hoseinzadehk@yahoo.com

RESULTS

The interaction effect of group and time was just significant in the tight muscle pain. In all of the groups, rate of the pain increased significantly after 1, 24 and 48h of EE in comparison with pre-test. There was significance difference in 24h than 1h in all of three groups and also in 48h than 24h in GIAE and PL. The pain significantly changed in 24 and 48h between GIAE and PL, and GIAE and GIBE. It is observed that CPK increased significantly in response to eccentric exercise in GIAE and PL but not in GIBE. There were no significant changes between groups. ROM and isometric strength didn't change significantly.

Variable	Group	Pre-test	After 1h	After 24h	After 48h
Right tight circumference	GIBE	04/08±4/0	04/71±4/72	04/73±4/0	04/98±4/10
	GIAE	07/21±4/70	07/0±0/0.1	07/77±11/0	07/71±0/0.3
	PL	04/28±3/43	04/49±3/4	00/0.0±3/08*!	04/73±3/79
Left tight circumference	GIBE	04/32±4/08	04/24±4/48	04/87±4/38*!	04/26±4/19*
	GIAE	07/0±4/7	07/83±4/77	07/3±4/90	07/44±4/74
	PL	04/13±2/97	03/78±3/14	04/48±3/47	04/24±3/37
Right Hip Range Of Motion	GIBE	1.08/0.3±8/77	1.01/70±9/7	98/02±8/44*	97/70±1.0/32
	GIAE	1.00/77±7/0.9	1.01/00±7/0.1*	97/0.8±11/78	98/76±9/34
	PL	1.00/83±7/81	1.00/33±1.0/81	99/39±11/91	97/3±11/0
Left Hip Range Of Motion	GIBE	1.07/39±1.0/49	1.01/19±11/08	93/00±7/44*	93/0.8±11/0.8
	GIAE	1.00/77±8/41	1.08/87±12/0.2	91/33±19/70!†	98/8±14/47
	PL	11.0/94±9/73	99/78±7/03*	93/71±8/0.0*	93/0.3±11/19*
Tight muscle pain	GIBE	0/0±0/0	7/92±7/07*	07/92±1.0/77‡*!	03/70±9/77‡*!
	GIAE	0/0±0/0	3/0.8±3/0.7*	4.0/0.0±11/28‡*!	33/33±9/80‡*!
	PL	0/0±0/0	7/83±0/81*	70/0.0±14/3.0*!	08/70±8/82*!

‡ Significant difference between GIBE and GIAE

† Significant difference between GIBE and PL

|| Significant difference between GIAE and PL

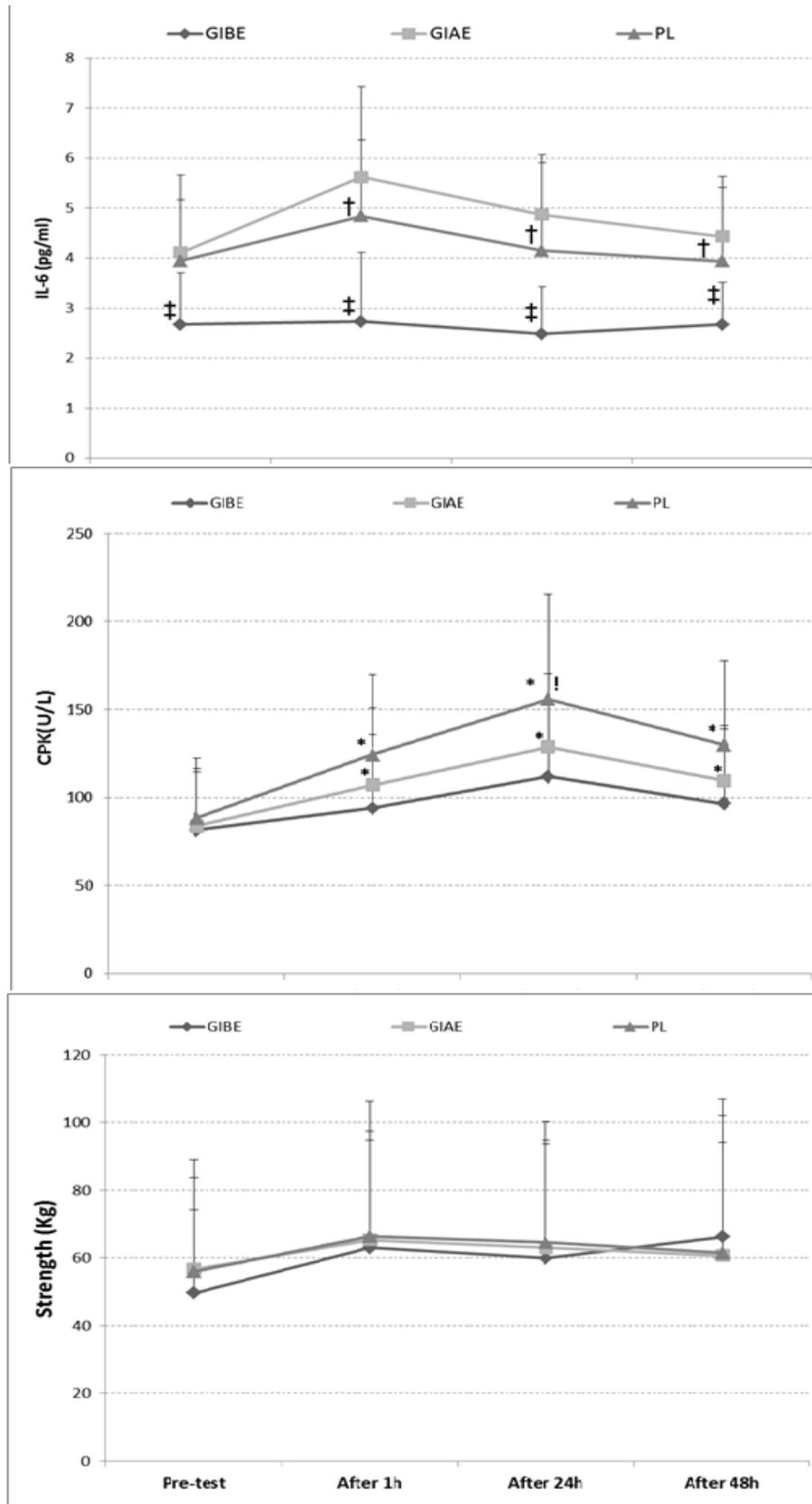
* Significant difference in comparison with pre-test

! Significant difference in comparison with previous phase of measurement

CONCLUSION

In conclusion, eccentric exercise increase in CPK, IL-6 and pain and ginger had analgesic effect on pain relief and this maybe was due to the inhibitory effect of ginger on prostaglandin's release. In summery the results of the present study suggest that ginger extract could reduce pain and inflammatory caused by eccentric exercise and maybe it could be used as an effective herbal in healing DOMS.





REFERENCES

1. Pournot, H., Bieuzen, F., Louis, J., Fillard J.R., Barbiche, E., Hausswirth C. (2011). Time-Course of Changes in Inflammatory Response after Whole-Body Cryotherapy Multi Exposures following Severe Exercise. PLoS ONE, Volume 6, Issue 7, e22748.
2. Black, C.D., Herring, M.P., Hurley, D.J., O'Connor, P.J. (2009). "Ginger Supplementation Attenuates Muscle Pain and Dysfunction Following Eccentric Exercise". *Medicine & Science in Sports & Exercise*. 41(5): 231.
3. Black, C.D. and O'Connor, P.J. (2008). "Acute Effect of Dietary Ginger on Quadriceps Muscle Pain during Moderate-Intensity Cycling Exercise". *International Journal of Sport Nutrition and Exercise Metabolism*.18: 653-664.4.
4. Black, C.D., Herring, M.P., Hurley, D.J. And O'Connor P.J. (2010). "Ginger (*Zingiber officinale*) Reduces Muscle Pain Caused by Eccentric Exercise". *The Journal of Pain*. Volume 11, Issue 9 , Pages 894-903.
5. Haghghi, M., KHalvat, A., Tolit, T., Jallaei, S. (October 2005). "Comparing The Effects of Ginger (*ZingiberOfficinale*) Extract and Ibuprofen on Patients With Osteoarthritis". *Archives of Iranian Medicine*. 8(4): 267-271.
6. Hindell, P.D., Poole, K.A., Robinson, E., Reynolds, L., Mason, H.J. (2001). "Induction of DNA Damage by a Step-test Exercise Protocol". *Biochemical Society Transaction*. 29(5): 115.



The Effect of Glutamine Supplement on Changes in hsp72, Cortisol and Plasma Glucose after Exercise

BEHZAD KIA*

Department of Physical Education and Sport Science, shoushtar Branch, Islamic Azad University, shoushtar, Iran.

INTRODUCTION

It is reported that Glutamine plays a key role in cell protection following stress(2), by causing a simultaneous increase in hsp72 expression(1), which is dependent on glutamine metabolism and its relation with cortisol levels and gluconeogenesis.

METHODS

28 soccer players were divided in four groups; the control, supplement, supplement-exercise and the exercise groups. 0.5 g/kgBw supplement and placebo consumed 5ml/kgBw volume of water one hour prior to the exercise protocol, which included 3 stages of 20 minutes running (80% H_{rmax} intensity) with 5 minute rest periods between each stage. Baseline, and pre, post and 90 minutes after exercise, blood sampling was done and cortisol, glucose and hsp72 levels were measured using RIA, Enzymatic, and Elisa tests respectively.

RESULTS

It is observed that Plasma cortisol and plasma glucose levels showed no significant changes in the groups, hsp72 while expression in the supplement and the supplement exercise groups was increased.

CONCLUSION

In conclusion, Role of glutamine, independent of its relation with cortisol and glucocorticoid(4) is a stimulator of hsp72 expression which is further increased by combining the supplement with exercise(3), suggesting that athletes may want to use glutamine prior to taking part in matches or intense exercises(5).

* - Corresponding Author:

Behzad kia

E-mail: kiabehzad1973@gmail.com

Table 1. values of HSP72 (nano-grams per ml) in four groups of four stages of the research

90 minutes after the test	Post -test	Pre - test	The base	Steps group
0/1 ± 0/3	0/1± 0/2	0/1±0/2	0/06 ±0/1	Control
0/2± 0/2	0/1± 0/5	0/1±0/4	0/11 ± 0/02	Supplement
0/3 ± 1/3	0/3± 0/6	0/2 ± 0/3	0/26±0/2	Sports activities-supplement
0/1± 0/7	0/2±0/5	0/3± 0/5	0/3 ± 0/3	Sports activity

Table 2. cortisol values (µg ml) * four groups of four stages of the research

90 minutes after the test	Post -test	Pre - test	The base	Steps group
2/5±12	5/4 ±9/3	3/2 ± 13/4	4/2± 14/4	Control
2 ± 9/4	2/9± 10/6	2/4 ± 14	6/2±15	Supplement
6/6±13/8	7/8± 16/2	4/4± 15/2	2/5±16/2	Sports activities supplement
4/4± 15/7	5/9± 14/3	3/2± 15/4	6/4± 14/03	Sports activity

Table 3. Blood glucose values (mg/100 ml) in four groups of four. the research

90 minutes after the test	Post -test	Pre - test	The base	Steps group
7/1± 67/1	11/2± 67/2	11/2± 60/1	7/4±78/2	Control
8/6± 74	9/1± 64/7	13/8± 68/7	6/3± 78/1	Supplement
5/3± 76/8	11/5± 86	18/7±67/7	6/1 ±77/1	Sports activities supplement
7/7± 73/2	10 /4 ± 81/8	15/3 ± 57/7	5/18±80/1	Sports activity



REFERENCES

- 1) Subcellular movement and expression of HSP27, β -crystallin, and HSP70 after two bouts of eccentric exercise in humans. Paulsen G, Lauritzen F, Bayer ML, Kalhovde JM, Ugelstad I, Owe SG, et al. *J Apply Physiol* 2008; 107: 570-82.
- 2) Glutamine reduces heat shock-induced cell death on rat intestinal epithelial cells. Chow A, Zhang R. *J Nutr* 2005; 128: 1296-301.
- 3) Prolonged treadmill training increases HSP70 in skeletal muscle but does not affect age-related functional deficits. Kayani AC, Close GL, Jackson MJ, mcardle A. *Am J physiolregulintegr Comp Physiol* 2004; 294: R568-76.
- 4) Prolonged exercise training induces long-term enhancement of HSP70 expression in rat plantaris muscle. Ogata T, Oishi Y, Higashida K, Higuchi M, Muraoka I. *Am J Physiol Regul Integr Comp Physiol* 2008; 296: 1557-6 .
- 5) Plasma cytokine changes in relation to exercise intensity and muscle damage. Peake M, Suzuki K, Hordern M, Wilson G, Nosaka K, Coombes J. *Eur J applphysiol* 2004; 95: 514-21.



The Effect of (*Rosa Damascena*) Supplement on Inflammatory Markers IL-6, CRP after Incremental Exercise in Active Females

¹Sara Jasemian*, ²Mohammad ali Azarbaijani, ³Bahman Tarverdizadeh

1. Master of sciences in exercise physiology, Bushehr Branch Islamic Azad University, Boushehr, Iran
2. Associate Professor in exercise physiology, Central Tehran Branch, Islamic Azad University, Tehran, Iran
3. Assistant Professor in exercise physiology, Bushehr Branch, Islamic Azad University, Bushehr, Iran

INTRODUCTION

One of the most important and sensitive roles of the immune system to forecast inflammation and pathogens in body and the inflammatory agent. The aim was the effect of *Rosa damascena* supplement on (IL-6, CRP) after incremental exercise in active females.

METHODS

18 active girls (age $28/4 \pm 26/27$ years, weight $57/4 \pm 5/74$ kg, height $163 \pm 4/63$ cm) attended in this research. They divided randomly to three groups, two experimental group (Rose supplements at doses of 800 and 400) and a control group (containing placebo). These

* - Corresponding Author:

Sara Jasemian

E-mail:sarajasemian@yahoo.com

groups consume supplements for 15 days. Prior to the first day of the supplementation, blood samples were taken from subjects. Twelve days prior to execution of eccentric exercise as well as 24, 48 and 72 hours after it, blood sample were taken. Incremental exercise was 5 set with 80% 1RM and the rest of each set was 1 minute. Data of study was analyzed by repeated measure ANOVA

RESULTS

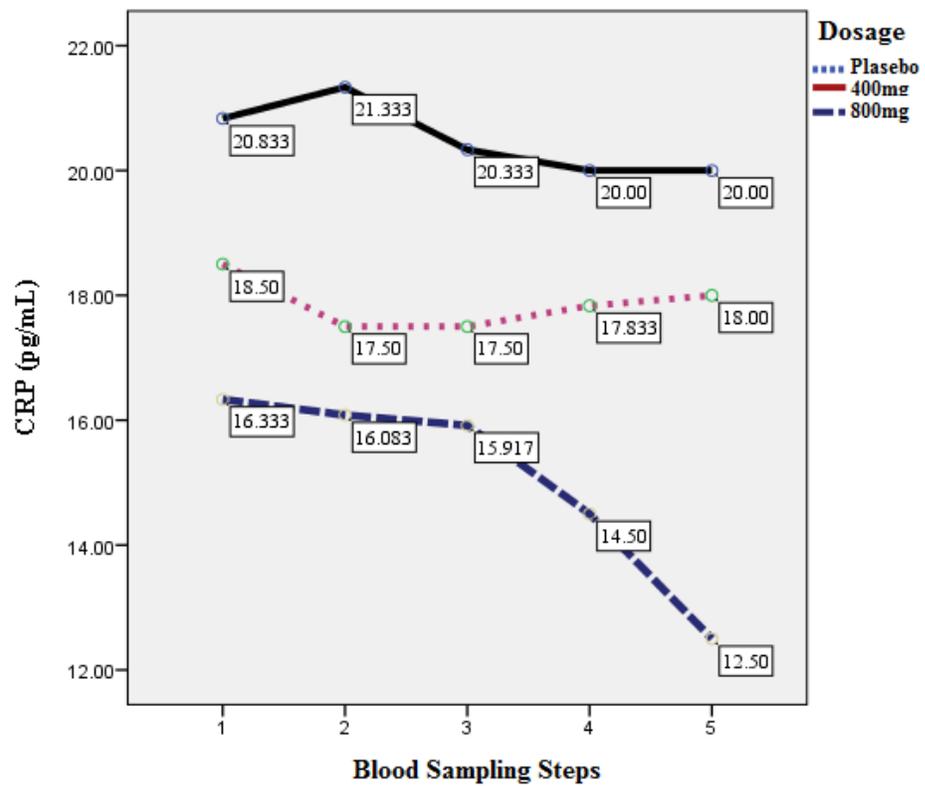
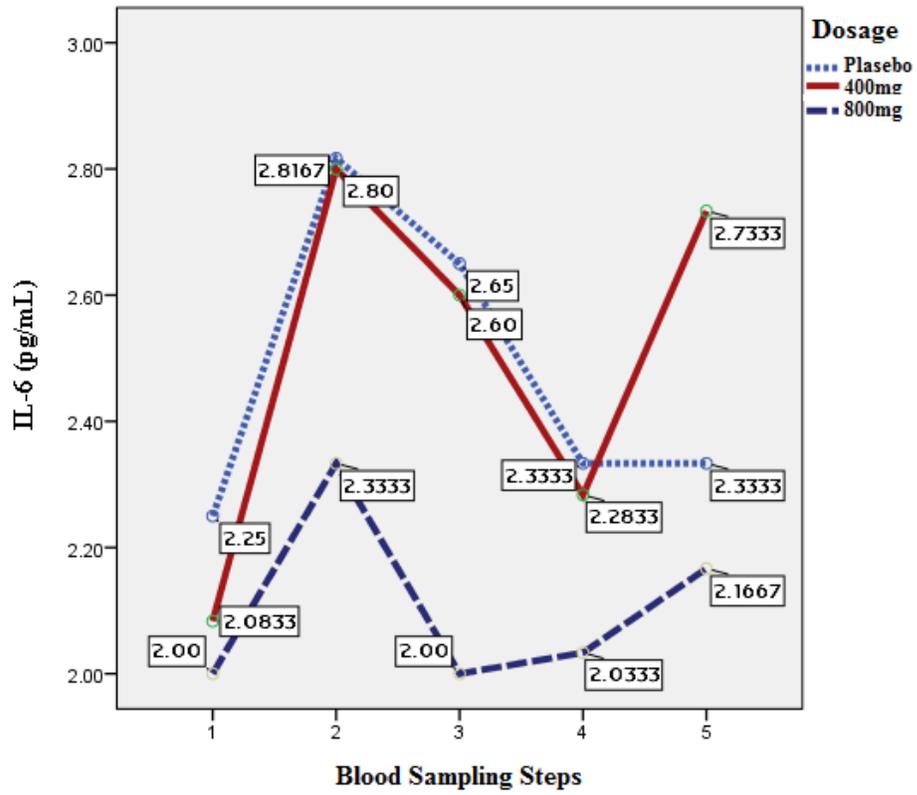
Indicated that rose supplementation had no significant in reduce or increase of inflammatory markers IL-6 and CRP in active girls. But it was significant in comparison between a placebo and complementary rose, dose of 800 mg on CRP. ($p < 0.0001$) And the 800-mg dose caused a significant reduction in CRP.

CONCLUSION

Indicated that 800 mg rose supplementation led significant reduction in CRP. Therefore, it is recommended to reduce CRP. The plant extraction was administered under the supervision of coaches and related professionals. Moreover, subjects replied rose supplementation reduces muscle pain and faster recovery.

REFERENCES

1. Nafisa, H.A. An investigation of antimicrobial compounds for immunomodulating and anti-adhesion properties, Pakistan Research Repository; 2003.
2. Pederson Bk.(2000)special feature for the olympics : effects of exercise on the immune system: exercise and cytokines .Immunol cell biol78:532-535.PMID 11050536
3. Garrett WE .Anddonald JR, Kirkendall T.(2000). Exercise and sport science. Library of congress catalogonng. In application data 750.
4. T.Mackinnon.Exercise immunology.(1953)
5. Aridogan, B.C., Baydar, H., Kaya, S., Demirci, M., Ozbasar, D., Mumcu, E. Antimicrobial activity and chemical composition of some essential oils. Arch Pharm Res 2002; 25: 860-4.





The Effect of Aerobic Activity Associated with the Consumption of Zinc Oxide on Liver Histology in Rats

¹Zohreh Abouhosseini*, ¹Parvin Farzanegi, ²Mohsen PourGhasem

1. Sari Branch, Islamic Azad University, Sari, Iran.
2. Department of Medicine, Babol Medicine University, Babol, Iran.

INTRODUCTION

The liver has a central role in many physiological basic processes and sport activities affect on liver function, leading and health. The results of some studies have shown that physical exercise protect the liver against various environmental and physiological stresses and doing regular exercise and physical fitness is recommended for prevention of liver disease. Reports indicate that regular endurance aerobic training reduces serum levels of ALT, AST, and decreased hepatic parenchymal density and prevent progression of fatty liver disease (1).

Minerals are necessary for a wide range of metabolic and physiological processes in the human body and their consumption such as zinc supplements for improving athletic performance among athletes is interested (2). Zinc is a vital component in many biochemical reactions in the body, including the structure and activity of over 300 enzymes, if this component is removed from the catalytic role, activity of these enzymes would be lost (3). Moderate exercises and use the normal amount of Zinc can prevent damage caused by oxidative stress and lack of minerals and decreasing liver. The reason of Zinc deficiency in athletes almost is due to body safety performance injury and performance decreasing. Researches show that Zinc consumption in people is lower than the amount of daily requirement and this deficiency is more obvious in athletes. Zinc deficiency in athletes may be due to sweating during exercise. The most common

Corresponding Author:
Zohreh Abouhosseini
E-mail: z.abouhosseini@yahoo.com

combination of Zinc is Iron-Oxide zno form, that it would be preferable for two reasons: once, it has the highest Zinc concentrations in itself and the other one is the high absorption in the body, digestive system are also better tolerated. Some researches has shown that zinc oxide has toxic effect on the cells. (5) In this study, effects of zinc oxide supplement consumption with combined with exercise on liver histology was assessed.

METHODS

This study performed on 35 number of 6-8 weeks Wister male rats with an average initial weight 150-170 g. These animals after one week introduction with the new environment and the activities on the treadmill, divided by 5 group which contain 7 rats. These groups are: control, saline, saline with exercise, zinc oxide, zinc oxide with exercise. The exercise program is contained running on no slope treadmill for 29-44 minutes and 15 to 18 meter per minutes speed. The amount of Zinc oxide according with 1 mg per kg body weight, for 4 weeks, 5 days per week, intraperitoneally were injected to supplemental groups. Saline received groups, was injected 0.9% physiologic solution as the same amount. 48 hours after the last training session and after 12-10 hours of fasting, liver biopsy was performed to investigate the structure.

RESULTS

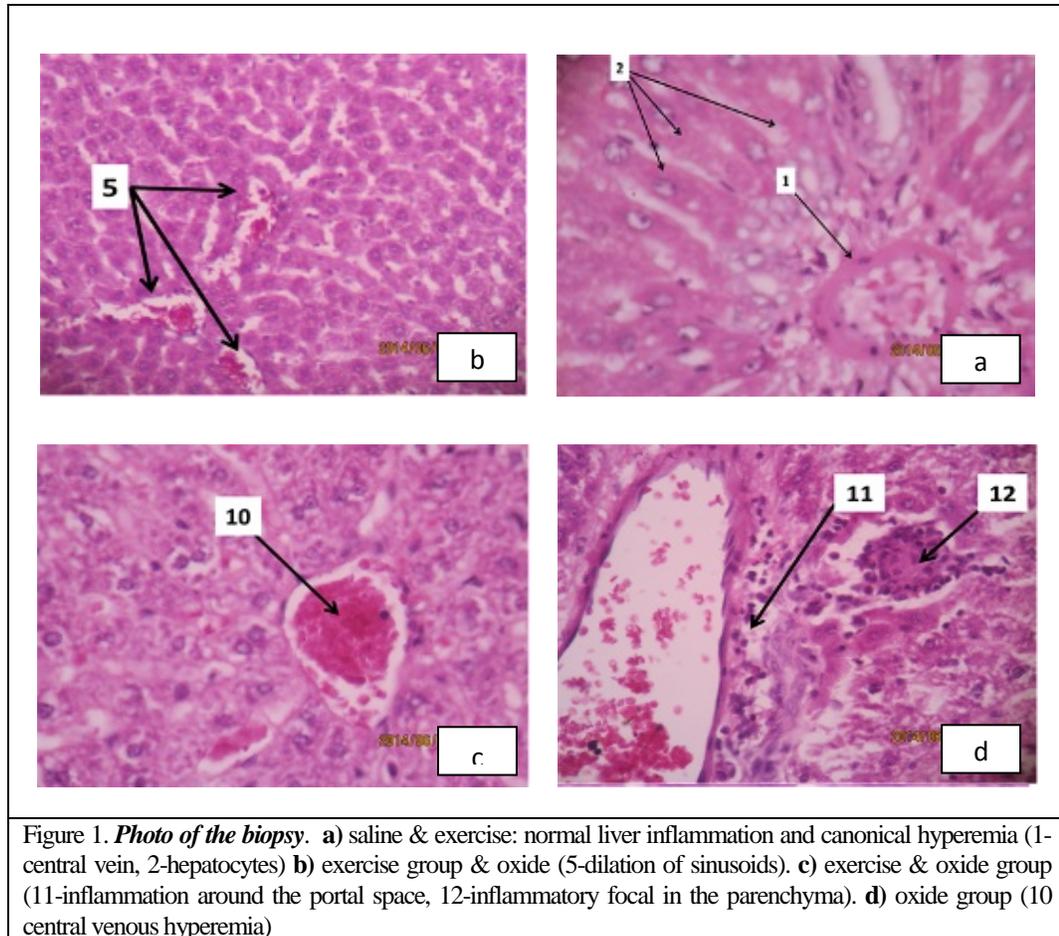
The following table shows the sample of biopsy images captured from rat liver cells with 400x Zoom.

CONCLUSION

According to optical microscope observation with 400x magnification, normal liver tissue was observed in the saline control group. In the saline and exercise group focal inflammation and slight congestion of the liver tissue was observed. In oxide group, inflammation in the parenchyma and hyperemia in the central venous was observed. In exercise with supplemental zinc oxide group, parenchymal inflammation and congestion at the port with dilation of sinusoids in higher oxidation was observed, that is probably due to higher blood flow during sports activities is the cells. Maybe inflammation results changes vessels diameter, increasing blood flow and leukocyte migration and accumulation of them at the center of the damage in order to remove the attacker, which if it associated with exercise, hyperemia will be result cause of high blood flow among the exercise.



In general, this research shows that aerobic exercise after 4 weeks with zinc oxide supplements affects the liver tissue. However, Zinc supplements have many positive effects especially in athletes, but based on the observations, zinc oxide has detrimental effects on the liver, although these pain and different periods effects has different effects on the liver, which can be good field for the other researchers.



REFERENCES

1. Davoodi M, Moosavi H, Nikbakht M. The effect of eight weeks selected aerobic exercise on liver parenchyma and liver enzymes (AST, ALT) of fat liver patients. J Shahrekord Univ Med Sci. 2012; 14 (1); 84-90 [Article in Farsi]
2. Lukaski H. Low dietary zinc decreases erythrocyte carbonic anhydrase activities and impairs cardiorespiratory function in men during exercise; Am J ClinNutr. 2005. 81(5); 1045-1051
3. Hotz, C. & Brow K. H. Assessment of the risk of deficiency in populations and option for its control. Food NutrBullctin. 2004. 25(1); 91-2040



4. Badkoobeh P, Parivar K, Kalantar M, Salabat A, Hosseini D. Protective effect of nano-zinc oxide on reproductive system and fertility of adult male Wistar Rats following doxorubicin treatment. *Arak University of Medical Sciences Journal*. 2013; 16 (1).1-9 [Article in Farsi]
5. Sohrabi D., Gholami M. R. The Effect of Zinc Chloride (Zn Cl₂) on Liver, Kidney and Spleen on Male Adult Rat. *Journal of Developmental Biology*. 2009; Volume 1, No 2; 9 - 14. [Article in Farsi]



The Effect of Two Types of high intensity Interval Training on Some of Aerobic Performance variables of Elite Rowers

¹Asieh Mirza Aghajani, ²Hasan Alikhani*, ³Mohammadali Gharaat

¹Department of Physical Education and Sport science, Rasht Branch, Islamic Azad University, Rasht, Iran.

²Department of Physical Education and Sport science, Lahijan Branch, Islamic Azad University, Lahijan, Iran.

³Ph.D. Student of exercise physiology, Shahid Rajaei University, Tehran, Iran.

INTRODUCTION

It is reported that VO_{2max} and vVO_{2max} are important factors for improve Athletic aerobic performance (1). High interval trainings can effect on aerobic performance variables. However, creating better performance through the balance of volume and intensity of training, needs to be investigated (2). So, the purpose of study is determine the effect of two different volume and intensity interval training on Vo_2 max and vVo_2 max.

METHODS

Number of Eighteen male Rowers (kayak and Cano) were chosen voluntarily and randomly divided into 2 groups of 9 persons. High interval trainings was performed in two ways of increasing volume of training and constant intensity, and increasing of intensity of training and constant volume in 9 sessions with 48 hours between sessions on Rowing Ergometer.

RESULTS

Nine session’s interval trainings improve VO_{2max} and vVO_{2max} . The vVO_{2max} varies only significant difference was observed between the two groups.

* Corresponding Author:

Hasan Alikhani

E-Mail: Alikhanihasan@yahoo.com

Table 1: Changes in vVo2max between groups

	Group	Pre test	Post test	changes percentage	T	sig
vVo2max	G 1	14	15.04	7.4	4.27	*0/001
	G 2	12.79	13.09	8.6		

T test used for compare the variables of two groups. G1= increasing volume of training and constant intensity; G2= increasing of intensity of training and constant volume. $P < 0.001$

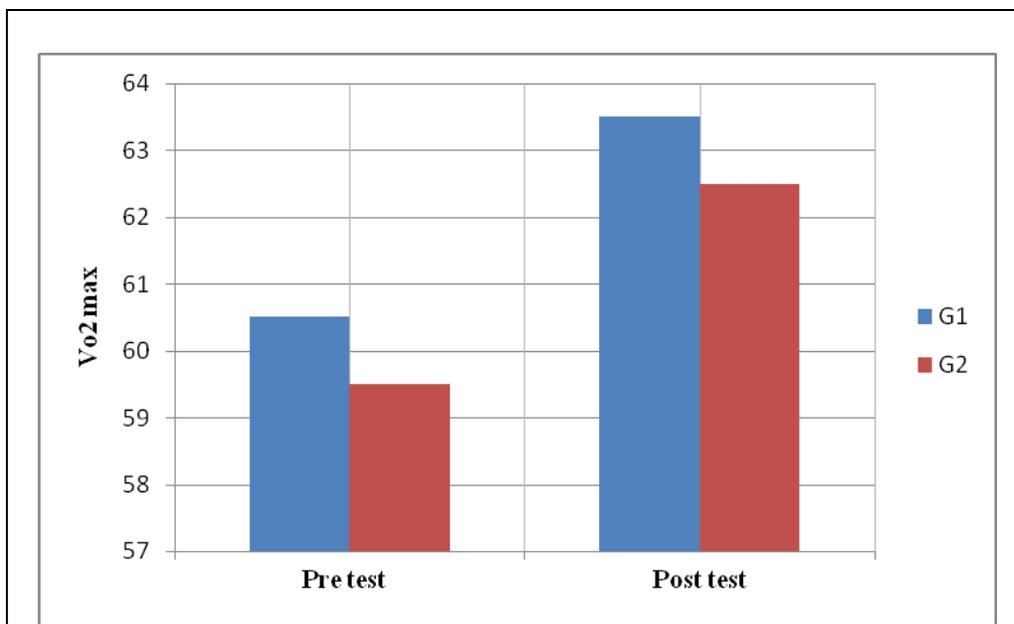


Figure 1: Changes in Vo2max between groups

T test used for compare the variables of two groups. There was No significant between the two groups in post test. G1= increasing volume of training and constant intensity; G2= increasing of intensity of training and constant volume. $P < 0.001$

CONCLUSION

High interval training with regard to its low volume, improves some aerobic performance factors (3). Also in elite athletes there is no need to increase workouts too much to raise the affectivity of high intensity interval trainings, otherwise it is best to by making a balance between 2 variables of intensity and volume improve these kinds of training (4).



REFERENCES

1. Drarnitsyn O v, Ivanova. Human Physiology, 2009. The relationship between the dynamics of cardiorespiratory variables and rowing ergometer performance. 35: 325 – 331.
2. Russell A , Le Rossignol P, Sparrow W. Prediction of elite schoolboy 2000-m rowing ergometer performance from metabolic, anthropometric and strength variables. Journal of Sports Sciences, 1998; 16(2):749-756
3. Trent W, Lawton J, Michael R. Strength, Power, and Muscular Endurance Exercise and Elite Rowing Ergometer Performance. Journal of Strength and Conditioning Research. 2013; 27: 1928 – 1935.
4. Yoshiga C, Higuchi M. Rowing performance of female and male rowers. Scandinavian Journal of Medicine and Science in Sports, 2003; 13: 317 - 321





Changes in fibrinogen levels, plasma viscosity and insulin resistance after 4 weeks of combined sit-up and walking training

¹Abbass Ghanbari Niaki, ²Farhad Ahmadi Kani Golzar*, ³Ebad Roohbakhsh, ⁴Hosein Ramezani

1. Department of Physical Education and Sport Sciences, University of Mazandaran, Babolsar, Iran.
2. Department of Physical Education and Sport Sciences, University of Mazandaran, Babolsar, Iran.
3. Department of Physical Education and Sport Science, Ayatollah Amoli Branch, Islamic Azad University, Amol, Iran.
4. Physical Education office, Babol University of Medical Sciences, Babol, Iran.

INTRODUCTION

It has been proven in studies that out of the hemorheological parameters, plasma viscosity is an independent risk factor in many pathologies, such as atherosclerosis, coronary artery disease and peripheral artery disease, in addition to inflammatory diseases. Sola and colleagues (2007) showed that the rheological disturbances (fibrinogen and plasma viscosity) seem to be associated with insulin resistance and the metabolic syndrome in obese patients (1). Reports concerning the association of physical activity with markers of inflammation, coagulation, and fibrinolysis are ambiguous. The aim of this study was to assess the effect of 4 weeks of combined analyzed sit-up and walking training with two different volumes on fibrinogen, plasma viscosity and insulin resistance index (HOMA-IR) in college, young men.

METHODS

In this semi-experimental study, 18 subjects with age range 19 to 25 years selected as research subjects and were randomly divided into two groups; In group 1 the main program included 15 minutes of sit-up exercise, followed by the 30 minutes walking training (15 minute sit-up +30 minute walking). The main program in Group 2 included 30 minutes of sit-up exercise, followed by the 15 minutes walking training (30 minute sit-up +15 minute walking). The study sit-up

*- Corresponding Author:
Farhad Ahmadi Kani Golzar
E-mail farhadahmadi19@yahoo.com

training included 25 types of training for abdominal muscles and the walking intensity was 130-140 steps per minute. Blood samples were collected before and after 4 weeks (16 sessions) and the levels of fibrinogen, plasma viscosity and HOMA-IR were measured. Data analyzed by two ways ANOVA (Between-group changes) and paired T test.

RESULTS

Compared with the pre-test, both groups demonstrated a significant reduction in body weight over the course of the study ($P < 0.05$). BMI for the group 2 (30 minute sit-up +15 minute walking) in the post-test decreased significantly compared with the pre-test ($P = 0.037$). In the post-test fibrinogen levels ($P = 0.008$) and plasma viscosity ($P = 0.008$) decreased significantly only in the group 2. Finally, in the post-test, no changes were observed in neither groups in comparison with the pre-test ($p > 0.05$). The two-way ANOVA showed a significant difference between the two groups only in the levels of fibrinogen ($P = 0.024$) (Table 1).

Table 1. Changes in fibrinogen, plasma viscosity and HOMA-IR before and after training

	group 1 (15 minute sit-up +30 minute walking) (n=9)		group 2 (30 minute sit-up +15 minute walking) (n=9)	
	Pretest	Posttest	Pretest	Posttest
Fibrinogen (mg/dl)	224.33 ± 28.12	211.33 ± 31.59	210.11±17.98	175.11 ± 25.05 *, §
plasma viscosity (mps)	11.25 ± 0.68	10.69 ± 1.37	10.78±0.57	9.83±0.87 *
HOMA-IR (molar units)	41.31 ± 11.75	45.85 ± 33.17	41.18 ± 12.19	39.95±13.55

All data are presented as $M \pm SD$; * = significant difference ($p < 0.05$) compare to pretest; § = significant difference between the groups.

CONCLUSION

In conclusion, 4 weeks of combined sit-up and walking training lead to a reduction fibrinogen and plasma viscosity, but has no remarkable effect on insulin resistance index. Given that hemorheological disorders involved in several different diseases such as cardiovascular disease have a role, performing this type of training may be beneficial in preventing these diseases (1-5).

REFERENCES

1. Sola E, Vaya A, Simo M, Hernandez-Mijares A, Morillas C, Espana F, et al. Fibrinogen, plasma viscosity and blood viscosity in obesity. Relationship with insulin resistance. *Clinical hemorheology and microcirculation*. 2007;37(4):309-18.
2. Ghanbari-Niaki A, Behzad Khameslo M, Tayebi SM. Effect of Pyramidal Training on Plasma Lipid Profile and Fibrinogen, and Blood Viscosity of Untrained Young Men. *Annals of Applied Sport Science*. 2013;1(3):47-56.



3. Kilic-Toprak E, Ardic F, Erken G, Unver-Kocak F, Kucukatay V, Bor-Kucukatay M. Hemorheological responses to progressive resistance exercise training in healthy young males. *Medical science monitor: international medical journal of experimental and clinical research*. 2012;18(6):CR351.
4. Dehghan S, Faramarzi M. The effect of 8-week low impact aerobic exercise on plasma fibrinogen concentration in old women. *International Journal of Applied Exercise Physiology*. 2013;2(1):40-5.
5. Jorge MLMP, de Oliveira VN, Resende NM, Paraiso LF, Calixto A, Diniz ALD, et al. The effects of aerobic, resistance, and combined exercise on metabolic control, inflammatory markers, adipocytokines, and muscle insulin signaling in patients with type 2 diabetes mellitus. *Metabolism*. 2011;60(9):1244-52.





Motor Behavior



Annals
of
Sport
Applied Science



Annals
of
Sport
Applied Science

Effects of 8-Week Core Body Exercises on Postural Control Parameters in Women with Multiple Sclerosis

¹ Azam enferadi*, ² Hamidreza taheri, ² Karim nikkhah

1. Faculty of Physical education and sport sciences, Ferdowsi University of mashhad, Iran.
2. Associate professor in motor Behavior, Ferdowsi University of mashhad, Iran.
3. Associate professor of Neurology Department, Mashhad University of Medical sciences, Iran

INTRODUCTION

Multiple sclerosis is a chronic and degenerative nervous disease which affects the central nervous system. Imbalance is one of the main problems in people with multiple sclerosis (1). This imbalance leads to a decrease in the stability; the stability loss can increase the risk of falling (2). One component of the balance is "core stabilization", that means ability to control the body's response to disturbances caused by the hand movement or any other distractions. Results indicate that the central stability in people with MS is less compared to healthy subjects (3). Weakness of the central part of the body that contains a sum waist, hip and thigh can be significantly impaired in activities. Research has shown that the central area of the body muscles may improve the body's ability to performance. Studies on the role of core stability and performance improvements have been performance. Clarke central role in maintaining stability along with good body condition during functional activities and prevent incorrect movement patterns, and were considered important factor for improving the performance. Exercise therapy and exercise can lead to better perform daily activities and improving physical condition of patients (4). The aim of the present study was evaluate the effect Core stabilization exercises on balance in women with multiple sclerosis.

METHOD

In this study 20 women with multiple sclerosis according to the standards of entering the study. The subjects were randomly and equally divided into experimental and control groups. Experimental group program exercised for eight weeks and involved three sessions per week for 45 minutes. Training center of gravity has three levels of difficulty appropriate for the participants in different situations. Postural control in both groups was measured before and after the training period. Swings of the center of pressure (COP) of mean changes of pressure in the anterior - posterior (AP) and medial - lateral (ML) and feet together measured while standing on a force plate. In order to compare the results of the independent t-test and paired t-test at a significance level of 0/05 was used.

RESULTS

Results showed that the experimental and control groups in mean changes of pressure in the anterior-posterior and medial - lateral surfaces, there is a significant difference ($p=0/002$, $p=0/001$).

Results indicate significant differences within group pressure Swings in the experimental group than in both the pre-test ($p=0/01$, $p=0/007$). The results are shown in the table below.

Distribution mean and standard deviation of pre-test and post-test, and significant

Variable	Stage Group	Pretest	Post test	Within group		Between groups	
				t	sig	t	sig
Pressure Swings the level of the anterior- posterior	Experimental	51/66± 8/4	33/84±3/29	3/05	0/01	3/7	0/002
	Control	39/98± 4/46	52 ± 8/08	-2/16	0/06		
Pressure Swings the level of the Median-Lateral	Experimental	52/28±12/13	28/07± 5/7	3/55	0/007	4/15	0/001
	Control	41/86± 7/42	50/8± 8/93	-2/15	0/06		

(Description: All the numbers on the pre-test and post-test was calculated based on mm)



CONCLUSIONS

In this study, The dependent variable of postural control and evaluation of pressure volatility in the level of the anterior - posterior and medial – lateral was studied under exercises conditions the center of gravity. Having a good balance is very important for independent living. Imbalance is important factor for falls and walking slowly. The ability can be changed in exercise or practice a skill or movement. According to the research Effect of exercise on maintaining the correct state of persons with multiple sclerosis was approved (5). Exercise causes the person with MS to acquire new balance control and better use of its balance receptors. Researchers in the study stated that rehabilitation balance with using exercise is a useful tool in reducing falls in people with MS. This reduction of postural sway can create with training protocol for the balance, able to improve the body's ability to be effective in these patients. The research findings showed that: Core stabilization exercises on people with multiple sclerosis can affect and improve their balance. And results showed that exercise center of gravity could be a useful solution for the rehabilitation of patients with multiple sclerosis.

Key Words: Multiple Sclerosis, Postural Control, Core body exercises

REFERENCES

1. Lanzetta D, Cattaneo D, Pellegatta D and Cardini R. Trunk control in unstable sitting posture during functional activities in healthy subjects and patients with multiple sclerosis. *Arch Phys Med Rehabil* 2004; 85: 279–283.
2. Shamway-cook A, Woollacoatt MH. *Motor control theory and practical application*. 3rd ed. Lippincott Williams & Wilkins. 2001. P.167-261.
3. Harringe ML, Halvorsen K, Renstrom P, Werner S. Postural control measured as the center of pressure excursion in young female gymnasts with low back pain or lower extremity injury. *J Gait & Posture*,2008;28:38 45
4. Wetzel JL, Fry DK, Pfalzer LA. Six-minute walk test for persons with mild or moderate disability from multiple sclerosis: performance and explanatory factors. *Physiother Can* 2011; 63(2): 166-80
5. Romberg A, Virtanen A, Ruutiainen J. Long-term exercise improves functional impairment but not quality of life in multiple sclerosis. *Journal of Neurology*.2004; 10: 1759-66.





The Effect of Rope-Jumping Plan on Fine and gross Skills of Fourth grade Students

¹Ehsan Zareaian, ²Habib Allah Azarhazin*, ³Elahe Siavashi

1. Department of Physical Education and Sport Sciences, Allameh Tabataba’i University, Tehran, Iran.
2. M.Sc, Kharazmi University, Tehran, Iran.
3. M.Sc, Allameh Tabataba’i University, Tehran, Iran.

INTRODUCTION

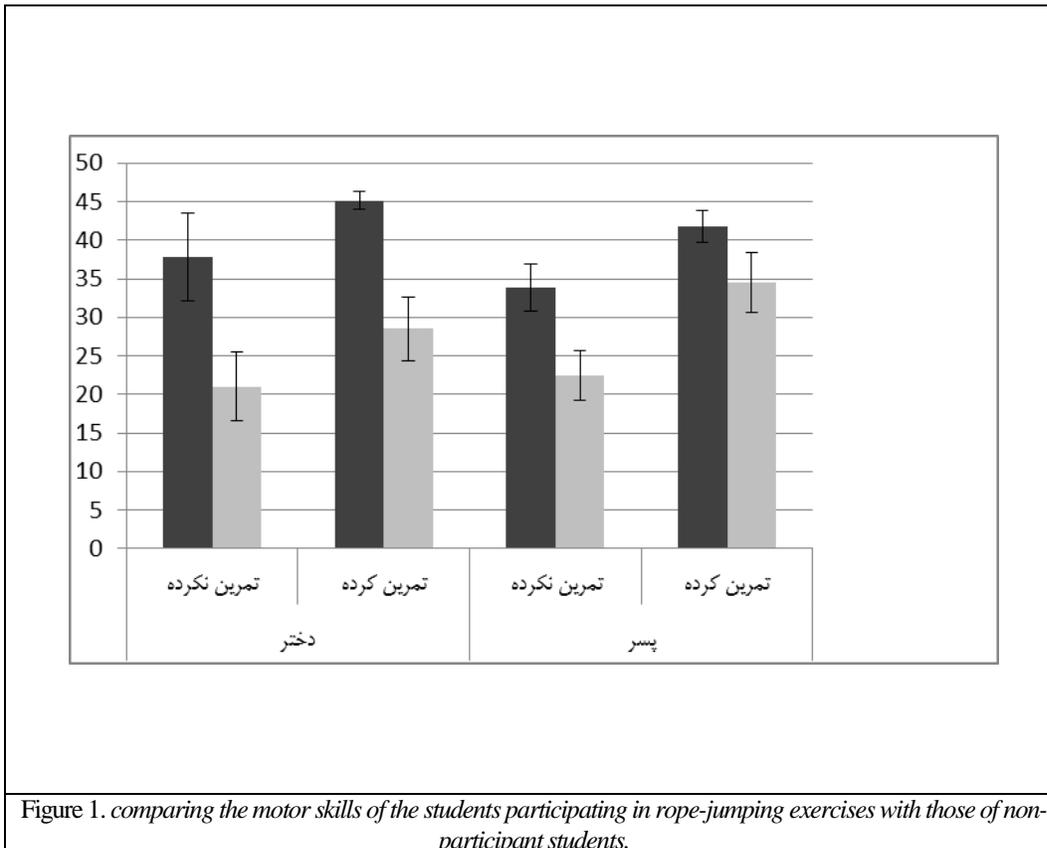
Optimal motor-skills should be set as a goal for all of the children so that they can have a higher degree of control over their lives. In order for a child to perform a series of exercises, they need cognitive and mental planning without which they would not be able to perform those exercises. Physical activities have a significant role in coordinating of movements and growing skillful in movements (1). A case in point is rope-jumping which is included in the primary school's grade four curriculum as a subject. Exercises using ropes contribute to improving muscular power, cardiovascular health, balance, agility, and coordination (2).

METHOD

The statistical population of the research included all of the grade four students of Shahr-e-Ghods. Via cluster sampling, 120 male and female students were randomly selected and had their exercises in two groups of 60 students (trained and non-trained). Their age range was 9.8 ± 0.4 . In order to calculate the motor skills score, a group of seven trained scorers were invited to use short version of Bruininks-oseretsky test (1978).

RESULTS

The results of two way ANOVA analysis suggested that there is a significant difference between the two groups in performing rope jumping skills ($p= 0.001$).



CONCLUSIONS

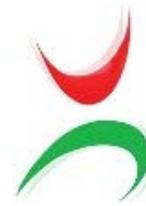
The exercising group scored higher compared with the non-exercising group in motor proficiency subscales. But there not found significant differences between two genders ($p= 0.77$). In fact, the findings of research confirmed Rezvani and NourBakhsh (2005); Chao, Shih (2010); Piek et al (2006)(3,4,5). This difference can be attributed to the rope jumping programs in schools. The findings suggest that rope jumping program increases both boys and girls motor skills.



REFERENCES

1. Goodway, J.D. and C.F. Branta, 2003. Influence of a motor skill intervention on fundamental motor skill development of disadvantaged preschool children. *Res Quart Exer Sport*, 74(1): 36-46
2. Chao, Ch. Ch., Shih, Y. L.(2010). The impact of rope jumping exercise on physical fitness of visually impaired students. Department of Physical Education, Asia University, 500, Loafing Road, Wufeng.
3. Piek, J. P. Baynam, G.B. Bareet, N.C. (2006). The relationship between fine and gross motor ability, self-worth in children and adolescents *Human Movement Science*, 25,65-75.





Effects of Task Difficulty on Postural Control in Overweight and Obese Men

¹ Javad Parhizkar Kohnehoghaz*, ¹Amir Hossein Ghibrani,
²Hasan Alikhani

1. Phd student of motor behavior, department of physical education, science and research branch, Islamic Azad University, Tehran, Iran
2. Assistant professor of motor behavior, department of physical education, Lahijan branch, Islamic Azad University, Lahijan, Iran

INTRODUCTION

In the last decade obesity has been recognized as a major world health problem characterized by an alarming growing rate and an important risk factor for various pathologies. The excessive amount of fat modifies the body geometry by adding passive mass to different regions and it influences the biomechanics of activities of daily living, causing functional limitations, and possibly predisposing to injury. Balance is defined as the process that maintains the center of gravity within the body’s support base and requires constant adjustments that are provided by muscular activity and joint positioning. Most nervous and musculoskeletal system diseases can alter this balance control. Maintaining postural balance requires sensorial detection of the body’s movements, integration of sensory-motor information into the central nervous system and an appropriate motor response. The position of the body in relation to space is determined by visual, vestibular and somatosensory functions. Muscular control and dynamic maintenance of balance involve the activity of coordinates of muscular kinetic chains. Constraints on postural stability in healthy subjects arise by mechanical factors, including individual and environmental factors, Therefore body physical properties may affect postural stability.

Postural control for a long time regarded as an automatic response, However, recent research categorized it from the simple to the most complex tasks that will be require attention processing. Since postural control requires visual, vestibular and sensorimotor information integration, In recent years, Sensory sources manipulate has become to a method for more difficult testing the postural control. Since overweight and obesity because of mechanical constraints caused problems in the motor skills execution such as postural control, This study attempts to examine influence of overweight and obesity on postural control using dual-task approach and visual manipulating.

METHOD

In this study displacement of the anterior - posterior, medial - lateral and velocity of the center of pressure of 25 obese ($BMI \geq 30 \text{ kg / m}^2$) 25 people overweight ($25 \geq BMI \geq 30 \text{ kg / m}^2$) and 25 ($18 \geq BMI \geq 25 \text{ kg / m}^2$) with normal weight In four different sensory conditions Including 1) open eyes without a secondary task 2) eyes open and Secondary Task 3) eyes closed without secondary task 4) eyes closed and secondary task during three 30-second Efforts with 5 min rest intervals between efforts evaluated. After investigating the data normality with kolmogorov Smirnov and equality of variance using the Leuven test, data using multivariable variance analysis and one-way variance analysis was analyzed. Data analysis was performed using SPSS version 16.

RESULTS

Table1. Results of variance multivariate analysis under various conditions

effect Type	test	Value	F	hypotheses DF	Error DF	Sig
weight Conditions	Wilks Lambda	0/93	4/44	3	178	0/005*
visual Conditions		0/91	5/48	3	178	0/001*
Cognitive task		0/90	6/08	3	178	0/001*
Weight* visual Conditions		0/90	6/15	3	178	0/001*
Weight Conditions * Cognitive task		0/98	1/02	3	178	0/38
Cognitive task* visual Conditions		0/97	1/40	3	178	0/24
Weight* visual Conditions* Cognitive task		0/98	1/24	3	178	0/29



Table 2. Results of one way ANOVA on the Manova context

effect Type	Variable	Sum of square	DF	Mean-square	F	Sig
weight Conditions	Anteroposterior	0/73	1	0/73	10/09	0/002
	Medialateral	1/20	1	1/20	2/62	0/10
	speed	0/41	1	0/41	7/27	0/008
Cognitive task	Anteroposterior	1/20	1	1/20	16/46	0/001
	Medialateral	0/28	1	0/28	0/61	0/42
	speed	0/10	1	0/10	1/78	0/18
visual Conditions	Anteroposterior	0/15	1	0/15	2/12	0/14
	Medialateral	0/45	1	0/45	0/98	0/32
	speed	1/05	1	1/05	18/34	0/001
Weight Conditions* Cognitive task	Anteroposterior	0/99	1	0/99	13/63	0/001
	Medialateral	0/36	1	0/36	0/79	0/37
	speed	0/005	1	0/005	0/07	0/77

CONCLUSIONS

The results of present research showed that overweight individuals than normal subjects and Obese than other groups in all four conditions of the study had greater sway in the center of pressure. The results show the negative impact of overweight on postural control system. These results is consistent with Ailton (2012) and Mngvny (2011) results But it contradicts with D'Hondt (2011). These results indicate The important role of vision inputs in postural control and It also requires more cognitive resources to modulate the postural changes in obese and overweight People.

Findings of this research provides potential clinical evidence to maintain optimal weight in order better balance performance And can be a starting point for further research to design balance exercises with sensory considerations to prevent obese People falls. Also given that the Postural instability is one of the limiting factors in motor resolver health and independence of the elderly, especially elderly women, Recommended that the impact of overweight and obesity on postural control in elderly studied. It is suggested that the impact of overweight and obesity on postural control in patients with sensory-motor problems such as multiple sclerosis, Parkinson's disease, sensory neuropathy, etc. are examined.

References

- 1 - Hills, AP., Parker, AW. (1991). Gait characteristics of obese children. *Arch Phys Med Rehabil*;72:403-7.
- 2- Woollacott, MH., Shumway-Cook, A. (2002). Attention and the control of posture and gait: a review of an emerging area of research. *Gait & Posture* 16:1-14.



- 3- Fabris de Souza SA, Faintuch J, Valezi AC, et al. Postural changes in morbidly obese patients. *Obest Surg* 2005;15:1013–6.
- 4- Carneiro, O., Santos-Pontelli, E.G., vilaca, H,V & et al. (2012). Obese elderly women exhibit low postural stability: a novel three-dimensional evaluation system. *CLINICS*,67(5):475-481.
- 5- Eva D'Hondt, Benedicte Deforche, Ilse De Bourdeaudhuij, Ilse Gentier, Ann Tanghe, Sarah Shultz, Matthieu Lenoir(2011): Postural balance under normal and altered sensory conditions in normal-weight and overweight children. *Clinical Biomechanics* 26 : 84–89.



The Study of Relationship Burnout, Motivational Variables Team Performance of the Professional Volleyball Players

¹ Sajad Abdi gorabi*, ² Fatemeh Sadat Hosseini

1. Department of Motor Education and Sport Sciences, Urome University, Amol, Iran.
2. Department of Physical Education and Sport Sciences, Allameh Tabataba’i University, Tehran, Iran.

INTRODUCTION

The purpose of this study was to find out the relation between burnout and motivational variables and performance of professional volleyball players.

METHOD

Subjects included volleyball players at men's super league. For data collection we used Athletic Burnout Questionnaire (ABQ) and Sport Motivation Scale (SMS). The results showed that for studying the relation between variables was used the Pierson & Spearman correlation index. And to compare variables between successful and unsuccessful teams an independent T test.

RESULTS

The results showed that there was an inverted relation between total burnout and its subscales with some of motivation variables and this relation was direct and significant in motivation. But there wasn't a significant relation between burnout, motivation subscales & team performance. Of burnout subscales, reduced accomplishment, and of motivation variables recognition factor related to external motivation, were playing a key role in unsuccessful teams, while this role was not significant in successful teams.

Corresponding Author:

Sajad abdi gorabi

E-mail: saad.abdi1@yahoo.com

CONCLUSIONS

Results comparatively supported self-determination/motivation theory as an indicating factor in athletic burnout.

Table 1. Results of t - test relater to burnout factors successful and unsuccessful teams.

Result	Significant	T-Quantity	Freedom	unsuccessful teams		Successful team		factors
				Standard deviation	Mean	Standard deviation	Mean	
*	0.04	-2.01	84	0.65	2.14	0.71	1.85	Factor 1 Lack of success
	0.14	1.48	84	0.65	1.91	1.16	2.21	Factor 2 Exhaustion - emotional
	0.30	-1.02	84	0.66	1.57	0.71	1.42	Factor 3 Low nose
	0.69	0.39	84	0.43	1.87	0.70	1.82	General deterioration

REFERENCES

- 1.Cresswell SL, Eklund RC. Motivation and burnout among top amateur rugby players. *Med Sci Sports Exerc.* 2005; 37(3): 469-77.
- 2.Cresswell SL, Eklund RC. Changes in athlete burnout and motivation over a 12-week league tournament. *Med Sci Sports Exerc.* 2005; 37(11): 1957-66.
- 3.Lemyre PN, Roberts GC. A social cognitive approach to burnout in elite athletes. *Scand J Med Sci Sport.*2007; 7: 1224-9.





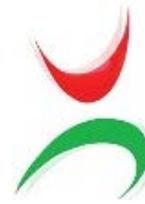
Sport Biomechanics



Annals
of
Sport
Applied Science



Annals
of
Sport
Applied Science



The Center of Mass Oscillations in Parkinson Patients

¹Mohsen Mohammadi*, ² Murat Kaldırımçı, ³ Ahmet Gökhan Yazıcı, ⁴ Seyed ebrahim kazemi

1. Department of Physical Education and Sport Science, Atatürk University, Erzurum, Turkey.
2. Department of Physical Education and Sport Science, Atatürk University, Erzurum, Turkey.
3. Department of Physical Education and Sport Science, Atatürk University, Erzurum, Turkey.
4. Department of Physical Education and Sport Science, Gazi University, Ankara, Turkey.

INTRODUCTION

Parkinson’s disease (PD) is a neurodegenerative disorder and Gait disorders, along with balance disturbances, are the most important determinants of falls, which are recognized to be a major problem among people with PD(1). The purpose of this study was to describe center of mass (COM) changes in Parkinson Patients.

METHOD

The 16 Parkinson disease female with age above 60 years old participated in this study with mean age of 63.35. Using motion analysis system with two cameras recorded standing performed for five seconds. To determine total body COM oscillations was used of a seven-part model which

Corresponding Author:

Mohsen Mohammadi

E-mail: mohsen64_m@yahoo.com

includes were parts of the forearm and hand, arm, head, trunk, thighs, shank and foot(2). COM of each section determined using anthropometric tables. Then the whole body COM determined was using two formulas in two axes X and Y. ANOVA statistical methods ($p < 0/05$) used for data analysis.

RESULTS

Significant differences found in relation to the whole body COM oscillations in any of the two axes X and Y.

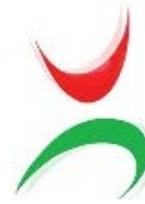
CONCLUSIONS

The results showed that the COM oscillations upper limb (forearm and hand, arm, head, trunk) in both axes X and Y in all subjects is more than the lower limbs (thigh, shank, foot), Also is consistent with Research findings on lower limb that the COM oscillations upper limbs is more than the lower limbs (2, 3). The results showed that most oscillations in the COM exist in forearm and hand and foot lowest ranked. The whole body COM oscillations are in all subjects to the anterior - posterior (X) for most of the medial - lateral (Y).

REFERENCES

1. Konczak J, Corcos DM, Horak F, Poizner H, Shapiro M, Tuite P, et al. Proprioception and motor control in Parkinson's disease. *Journal of Motor Behaviour* 2009; 41(6): 543-552.
2. William H, Winter D, James S. Kinematics and kinetic validity of the inverted pendulum model in quiet standing. *Gait and Posture* 2004; 19: 124 – 132.
3. Kejonen P, Kauranen K, Vanharanta H. Body movements in postural balance with motion analysis. *Journal Physical medicine Rehabilitation* 1998; 2(8): 39 – 43.





Comparisons of EMG Activity of Rectus Femoris and Vastus Medialis in Different Phases of Squat

¹Sepide Khamoushi* ,²Nader Farahpour, ³Shirin Yazdani

1. Department of Physical Education and Sport Science, Brojerd branch, Islamic Azad University, Brojerd, Iran
2. Department of Physical Education and Sport Science, Brojerd Branch, Islamic Azad University, Brojerd, Iran
3. Department of Physical Education and Sport Science, Tabriz University, Tabriz, Iran

INTRODUCTION

Information obtained from muscle EMG may help us to evaluate muscle activity, effectiveness of a specific rehabilitation program, as well as for understanding the injury mechanism(3). Squat exercise is widely used in daily training program, and in rehabilitations. The objective of this study was to assess the EMG activity of vastus medialis and rectus femoris muscles during their concentric and eccentric contractions.

METHOD

Thirteen female athletes (21.5±2.3 years; 162.34±3.44 height, 56.11±5.48 weight and 21.82±2.27 body mass index) participated voluntarily in this study. EMG activity of vastuslateralis and rectus femoris muscles were digitized during squat performance with a load equal to 45% of body mass.

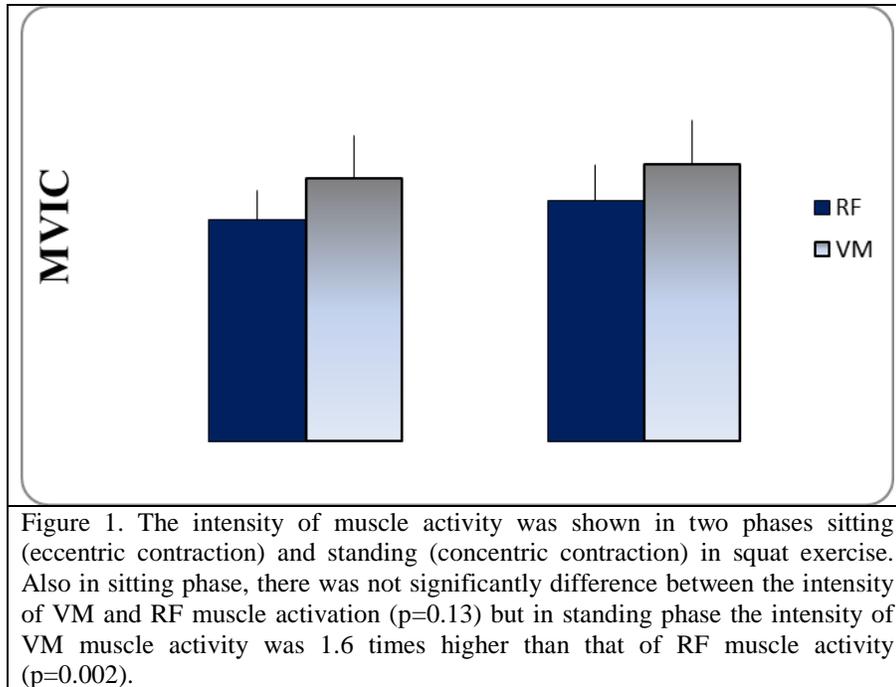
Corresponding Author:

Sepideh khamoushi

E-mail: skhamoushi@gmail.com

RESULTS

It is observed that the activity of vastus medialis in standing phase was about 1.59% greater than that of rectus femoris muscle ($P<0.05$). Overall vastus medialis displayed about 33% greater activity than rectus femoris muscle.



CONCLUSIONS

The activity of vastus medialis in standing phase was significantly greater than that of the rectus femoris muscle(1,4). It seems that vastus medialis rather than extension power, generate some forces for stability of the patella itself which is important action to prevent it from injury.

REFERENCES

- 1- Hamill, J., & Knutzen, K. M Biomechanical basis of human movement. Lippincott Williams & Wilkins; 2006.
- 2- Escamilla, RF, Fleisig, GS, Zheng, N, Lander, JE, Barrentine, SW, Andrews, JR, Bergemann, BW, and Moorman, CT 3rd. The effects of technique variations on knee biomechanics during the squat and leg press. *Med Sci Sports Exerc.*2001; 33: 1552–1566.
- 3- Ann-Katrin Sten dotter , Paul Hodges , Fredrik h berg & Charlotte Hger-Ross Quadriceps EMG in Open and Closed Kinetic Chain Tasks in Women With Patellofemoral Pain, *Journal of Motor Behavior*, 2007. 39:3, 194-202, DOI: 10.3200/JMBR.39.3.194-202
- 4- Pincivero, D.M., Gandhi, V., Timmons, M.K., Coelho, A.J. Quadriceps femoris electromyogram during concentric, isometric and eccentric phases of fatiguing dynamic knee extensions. *Journal of Biomechanics* ., 2006.39, 246–254.





The Effect of an 8-Weeks General Preparation Exercise on Some Selected Biomechanical, Anthropometrical and Physiological Parameters of the Iranian National Females' Taekwondo Team

¹ Raghad Mimar, ² Rezvan Alaie, ², Hamidreza Naserpour*

1. Department of Physical Education and Sport Sciences, Kharazmi University, Tehran, Iran.
2. Department of Physical Education and Sport Sciences, Kharazmi University, Tehran, Iran.

INTRODUCTION

One of the challenges confronting the coaches and sport scientist is to understand the physical factors contributing to successful performance. One the common methods to identify the appropriate training program for improving fitness level is the analysis of the effect of these practices on various factors of training exercises. The initial testing session at the start of a program can give the athletes and coach information of current functional capability and allow them to compare that capacity with reference values from appropriate peer group, so that future testing can be compared to this and any changes can be noted. Also the assessment of current status reveals the strengths and weaknesses of training program and become a basis for development of an optimal training program ([Mirzaie et al., 2011a](#)). The purpose of this study was to investigate the effect of an eight-weeks general preparation exercise on some selected biomechanical, anthropometrical and physiological parameters of the Iranian national Females' Taekwondo team.

METHOD

Nine elite member of Iranian national females' Taekwondo team (age 23.22 ± 1.98 years old, and weight 61.88 ± 8.44 kg) participated in this study. All participants read and signed an approved informed consent form. The exercise program consist of 72 sessions (3 session reviewing and practicing techniques, 2 sessions of combat (live) taekwondo, 2 sessions strength training, 1 session interval running and 1 session of endurance training each week) .The testing was conducted twice, before and after the 8-weeks training period. The biomechanical, anthropometrical and physiological parameters included; body weight, cardiovascular endurance, muscular endurance, speed, agility, visual reaction time, anaerobic power and body composition. body composition analyzer (in body 220) was used to assess the body fat percentage, reaction time was measured with visual reaction time apparatus(Satrap company, Iran), Bruce protocol was used to estimate VO_2 max, a 40-yard sprint test was used to assess the speed, 4×9 m shuttle run test was required to assess agility, 1-min bilateral jump was used to assess the lower extremities endurance and 15 second ergo- jump and Sargent test was required to assess the anaerobic power of the subjects. And inferential statistics Kolmogorov- Smirnov test was used to check the normality distribution, using a paired t- test to compare variables before and after training, with a significant level of ($p \leq 0.05$).

RESULTS

The results of functional test are presented in table 1. The bf% of the subjects significantly decreased. The results of body weight, agility, visual reaction time and anaerobic power (ergo jump test) test were slightly lower in after training. The results of anaerobic power, aerobic test and muscle endurance significantly increased.

Table 1. Result of Pair t-test for Comparison of the Functional Test Before and After Training Program.

Variable	pre-test	post-test	t(8)	P-value
Weight (kg)	81.88 ± 8.44	61.55 ± 8.30	1	0.347
BF (%)	16.78 ± 5.38	15.05 ± 5.04	5.888	0.000*
Speed (m/s)	6.19 ± 0.288	6.29 ± 0.255	-1.7	0.128
Muscle Endurance($rep \cdot min^{-1}$)	141.55 ± 9.51	146.44 ± 8.38	-5.406	0.001*
Agility (s)	9.35 ± 0.352	9.24 ± 0.241	1.486	0.176
Visual Reaction time(ms)	0.438 ± 0.352	0.416 ± 0.048	1.705	0.127
Anaerobic Power Sargent (W)	878.66 ± 121.40	909.01 ± 136.46	-3.344	0.01*
Anaerobic Power Ergo-jump ($w \cdot kg^{-1}$)	35.55 ± 7.95	35.33 ± 5.97	0.279	0.787
VO_2 max ($ml \cdot kg^{-1} \cdot min^{-1}$)	48.55 ± 5.12	55.55 ± 5.57	-8.083	0.000*

* Differences are significant at the 0.05 level.



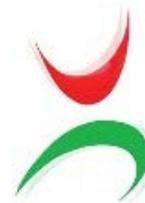
CONCLUSIONS

In previous studies cited that having good anaerobic and aerobic capacity, power, agility are most important factors needed to achieve good result in taekwondo ([Heller et al., 1998](#), [Pieter and Zemper, 1989](#)). In this regard, the main emphasize of general preparation phase is enhance the cardiovascular endurance and muscular strength, significant reduction in bf% and significant increase in aerobic and anaerobic factors following exercise was similar to the other investigations ([Mirzaie et al., 2011b](#), [Arabaci and Çankaya, 2008](#)). Finally, these results can be used as a feedback to the coaches to review the applied training protocols.

REFERENCES

1. ARABACI, R. & ÇANKAYA, C. 2008. The Effect of Seasonal Training Program on Some Physiological Parameters Among Cadet and Junior Wrestlers. *International Journal of Human Sciences*, 5, 1-20.
2. HELLER, J., PERICE, T., DLOUHA, E., KOHLIKOVA, J. & NOVAKOVA, H. 1998 .Physiological Profiles of Male and Femal Taekwondo (ITF) Black Belts. *Journal of Sports and Science*, 16, 243-249.
3. MIRZAIE, B., CURBY, D., BARBAS, I. & LOTFI, N. 2011a. Anthropometric And Physical Fitness Trait of Four-Time World Greco-Roman Wrestling Champion in Relation to National Norms: A Case Study *Journal of Human Sport and Exercise*, 406-413.
4. MIRZAIE, B., RAHMANI-NIA, F., CURBY, D., BARBAS, I. & LOTFI, N. 2011b. Changes in Physiological Paramrters in Cadet Wrestlers Following a 4-Week General Preparation Phase. *Journal of Physical Education of Students*, 119-121.
5. PIETER, W. & ZEMPER, E. 1989. Ustu-Funded Sports Science Research in Taekwondo Overview of the Oregon Taekwondo Project, Part 1.





A Comparison of the Static Balance of the 10- 11 Year Old Male and Female students with Low Vision and Hearing loss with Those of Normal Students

¹Sahar Sahraee*- ²Nader Farahpoor- ³Amir Sarshin- ⁴Shiva abdi

1. Department of Physical Education and Sport Sciences, Karaj Branch, Islamic Azad University, karaj, Iran.
2. Department of human Sciences, Bu Ali Sina University, Hamedan, Iran.
3. Department of Physical Education and Sport Sciences, Karaj Branch, Islamic Azad University, karaj, Iran.
4. Department of Physical Education and Sport Sciences, Razi University, Kermanshah, Iran.

INTRODUCTION

Balance is the necessary feature of most daily activities. Heaving a desirable balance in physical performance is of paramount importance. Considering the function of some part of the brain in the processing of vision, Vestibular and proprioceptive sensory data, it is very important to analyze the influence of any weakness in vision and hearing capability on static balance. Balance is the ability to maintain body position and its members than the outside world. Static balance is Base of support maintain with the stationary.

METHOD

20 students (10 boys and 10 Girls) among normal students of Kermanshah (weight: 34.9 ± 4.5 Kg, height: 138.65 ± 5.2 cm) were selected available volunteers as the control group with vision above 20.700 degrees and hearing below 25 Db HL. Also, 20 students with hearing loss (10 boys and 10 Girls) (weight: 33.6 ± 2.3 Kg, height: 136.13 ± 4.9 cm) and 20 students with low vision

(10 boys and 10 Girls) (weight: 30.6 ± 3.3 Kg, height: 131.53 ± 2.9 cm) were chosen as the experimental group.

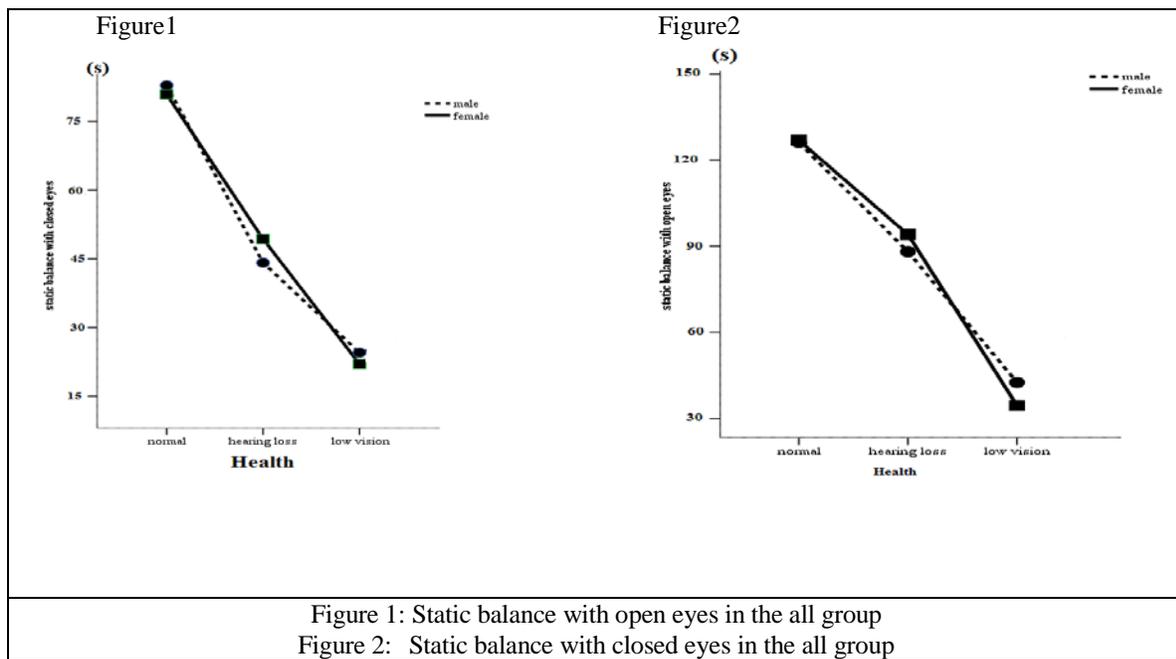
The experimental group with low vision and hearing loss had 20.200 – 20.700 degrees of vision, 35-69 Db HL of hearing respectively. Static balance was evaluated by Sharpened Romberg balance test. The 2- factor analysis of variance (gender \times health status) and tukey test (significance level $p \leq 0.05$) were used to analyze the data.

RESULTS

The duration of keeping static balance with open eyes of the control group (Normal = 126 S) was more than that of the experimental (Hearing loss = 90 S and Low vision = 38 S) group ($p=0.000$).

The duration of keeping static balance with closed eyes of the control group (Normal = 81 S) was more than that of the experimental (Hearing loss = 46 S and Low vision = 23 S) group ($p=0.000$).

There was no significance different in the static balance of the male and female students in the control and experimental groups ($p \geq 0.05$).



CONCLUSIONS

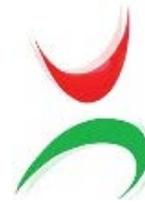
The results indicate that the normal male and female student had a higher amount of static balance than the male and female students with low vision and hearing loss.

The duration of the static balance of all the groups with the eyes closed was reduced but this reduction was more significant in the groups with low vision and hearing loss respectively. In fact, maintenance of the static balance of the groups was dependent on the vision, proprioceptive-sensory and auditory systems respectively.

REFERENCES

1. Adel A. H. A Comparison of Static and Dynamic Balance among Blind, Deaf and Non – handicapped Primary School Age Children in the State of Bahrain. Bahrain Medical Bulletin. August 1989, Vol. 11, No, 2. pp 66 – 76.
- 2 .Demirchoglian, G Demirchoglian, A. Professional physical Education of low vision children. Sawtsky sport press, Moscow. (2000)
3. Litosch N. L. Adaptive Physical Education – Psychological – Educational Specifications of the Children with Evolution Disorders, Sports Academy Press Moscow. (2002)
- 4 .M. T. Meintjes, J. S, Frank. Balance in Chronic Low Back Pain Patients Compare to Healthy People Under Various Conditions Standing. Clinical Biomechanics, (1999) 14: 710 – 716.
5. Roeser RJ, Valente M, Dunn HH. Audiology: Diagnosis. 1st Ed. New York: Thieme medical publishers Inc; 2000.





The Relation Propulsive Force to Anthropometrical Measures of Teenager’s Elite Swimmers

BEHZAD KIA *

Department of Physical Education and Sport Sciences, Shoushtar Branch, Islamic Azad University, Shoushtar, Iran.

INTRODUCTION

It is reported that During four passed decades, a great deal of attention gas been given to the presupposed relationship between body shape dimensions and hydrodynamic resistance related drag for actively swimming subjects to anthropometric variables(3). The development of a new direct method of determining active drag (IMAD) warranted a reevaluation of this relationship (2), which was the aim of present work.

METHOD

Twenty one elite teenager swimmers with different body shape ranging in age from 11 to 14 years and in mass from 35 to 70 kg have volunteered in this study. They were requested to swim a 10 meter distance as fast as they could and three to five trials with enough rest in between. They have also been instructed to glide at the end of 10 meter swim, by whistling, until still position. The time of 10 meter swim and the glide distance were measured with reasonable precision (10^{-2} sec. and 10^{-2} m respectively). The variables were weight, body fat, lean body mass, height, arm length, head circumference, arm circumference distance, foot length, arm girth relaxed and arm girth fixed and tensed, lower limb length, metacarpal width, thorax circumference.

* - Corresponding Author:

Behzad kia

E-mail: kiabehzad1973@gmail.com

RESULTS

It is observed that the variables were weight, body fat, lean body mass, height, arm length, head circumference, arm circumference and bio acromial distance, foot length, arm girth relaxed and arm girth fixed and tensed, lower limb length, metacarpal width, thorax circumference. Very high and significant correlations were found between propulsive force and anthropometric variables. In addition to high degree of correlation between lean body mass and propulsive force, significant increments were also found between several other anthropometric variables and propulsive force. Except the head circumference and body fat, the other variable had high and significant correlations with propulsive force.

Table 1: results of the relationship between antropometriki with newer feeder resources

Assumptions	The amount of communication	The level of probability of	Thus check
The relationship between the force feeder and height	0/84	0/006	It is a significant
The relationship between the force and weight feeder	0/89	0/000	It is a significant
The relationship between weight and lean force feeder	0/93	0/000	It is a significant
The relationship between fat and feeder body force	0/29	0/297	Not significant
The relationship between the force of the force feeder and head circumference	0/24	0/197	Not significant
The relationship between the force and the distance feeder appendix akhormy force the scapula	0/81	0/000	It is a significant
The relationship between the force and the force feeder arm length	0/82	0/000	It is a significant
The relationship between the force and the force feeder length the Palm	0/85	0/000	It is a significant
The relationship between the diameter of the feeder and wrist force	0/58	0/006	It is a significant
The relationship between the force and the length of the two feeder hand force	0/85	0/000	It is a significant
The relationship between the force and the force feeder round chest	0/74	0/000	It is a significant
The relationship between the force and the diameter of the feeder arm force resting	0/70	0/000	It is a significant
The relationship between the force and the diameter of the feeder arm force are Contracting	0/69	0/000	It is a significant
The relationship between the length of the trunk and feeder osar force	0/78	0/000	It is a significant
The relationship between the length of the floor and feeder leg force	0/57	0/007	It is a significant
The relationship between the force and the length of the feeder power of the lower extremities	0/81	0/000	It is a significant



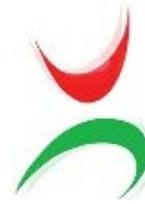
CONCLUSIONS

In conclusion, the sixteen physical variable measured head circumference and fat of the body, between the other variables(3), with the front significant relationship was seen winning force. The power relationship between height and weight, with a high positive correlation is observed(2) . A high correlation between the length of the trunk and feeder with power head and arm length can be high to its role in the production of feeder in the chest knowing kral swimming force(4) .

REFERENCES

- 1-Huijnig. P.A. Toussaint. H.M, Mackay, R, Vervoorn, k, calrys, j.P de Groot. &Hollander. A.P. Active drag body dimensions in: B.E. ungeraechts, k. Reischle & K.wilke(Eds) swimming science v. charnpaign: Human kinetics. (2005)
- 2-janson, Schultz, bangrter. (2003) applied Biomechanical evaluation exercise in translation: r. alijanian publications: poria but p. 164.
- 3-Sadeghi, Haidar, (2003) for sports biomechanics, publishing the PP pp 200-195.
- 4-Toussaint H.M. Roos. P.E & kolmogorov,S.The determination of drag in front crawl swing. J. Biomch 37-1655-1663(2004).





Designing Ergonomic Evaluation Assessment of Volleyball Sport Skills

¹Heidar Sadeghi, ²Shadi Saadati*

1. Department of Physical Education and Sport Sciences, Kharazmi University, Tehran, Iran.
2. Department of Physical Education and Sport Sciences, Kharazmi University, Tehran, Iran.

INTRODUCTION

Progress of science, improved The quality and quantity of life. in the field of sport, These developments Appear in Professional sport activities and Occurrence of injury, that has negative effects in sport fields(1). On the other, Ergonomics is using of humanism faculty subjects in relation to the environment that cover Occupational and Sports fields. Principles of Ergonomics applied in working and sport equally (2). Browsing of literature showed, there was no way for Ergonomic evaluation of sport skills so far and all of them were in Occupational environment. So using of these methods for designing new method in sports field can be discussed. Because volleyball is complex and Traumatic activity (3), the test was designed for this sport. Therefore the purpose of study was to design ergonomic evaluation assessment of volleyball sport skills for anticipating injury and improving athlete skill.

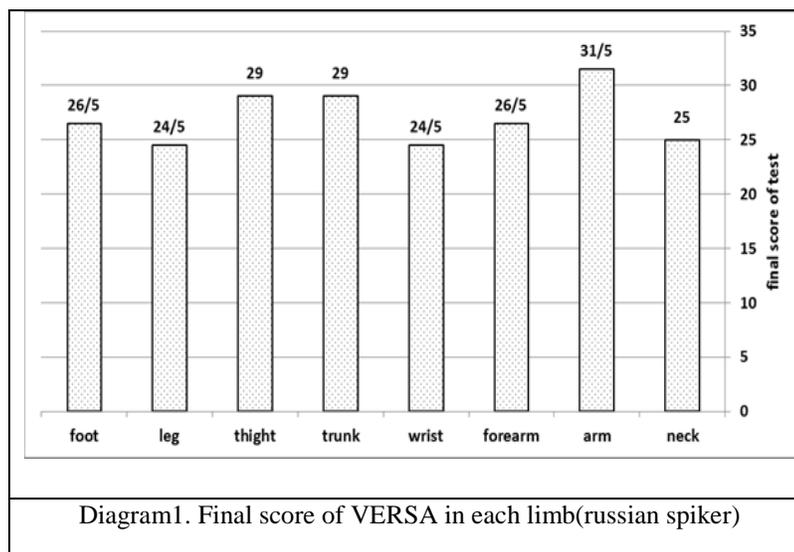
METHOD

In this functional study, among the different athletic fields and skills, common skills (set, forearm pass, serve, spike, and block) investigated as a statistical sample. By investigating available ergonomic test, ergonomic risk factor, properties of basic skill, International rules and Olympic Competition guide evaluated the mean of match time, repetition, jumping and landing number and range of motion by studying literature of pathology, classified vulnerable limb and injury mechanism. According to obtained information, provided the possibility of designing ergonomic test for first time. Due to absence of similar tests, for validating VERSA, the result of Russian spiker evaluation were compared with pathology research, therefore KINOVEA VERSION 0.8.15 software and final match of Olympic 2012 London were used for evaluation.

RESULTS

In the researcher made test(VERSA), information of name, sex and post completed, then age, weight, body type, level, equipment, warm up and Previous injury were investigated and finally type and repetition of match, Spectators, sets and rally, time of match were evaluated. Evaluation was included repetition, force, velocity, center of mass, Redirects, The height and nature of the jump and fall and environment evaluation, therefore in each limb, rang of motion scored and given corrective actions. The

result of russian spiker evaluation with VERSA showed in Diagram1. Based on final test score, the arm, leg and forearm were maximum in risk of injury.



CONCLUSIONS

The purpose of study was to design ergonomic evaluation assessment of volleyball sport skills. With evaluating sport skills In terms of ergonomic factor In VERSA test, there was injury anticipation capabilities, determination risk of injury and Comparison of post injury for first time. Based on comparing research result and pathology literature, the arm was in high risk injuries that confirm validity of VERSA. Due to importance of volleyball progress in the country, using of VERSA Suggested to coaches and Enthusiasts for determination injury level, modifying technique and designing practices

REFERENCES

1. Augustsson SR, Augustsson J, Thomee R, Svantesson U. Injuries and preventive actions in elite swedish volleyball. Scand J Med Sci Sports. 2006; 16(8): 433-40.
2. Reilly T, Atkinson G. Contemporary sport, leisure and ergonomics. 2nd ed: Routledge/Albani; 2009. 150 p.
3. Reseer JC, Verhagen E, Bringer WW, Askeland TI. Strategies for the prevention of volleyball related injuries. Br J Sports Med. 2006; 40(7): 594-99.



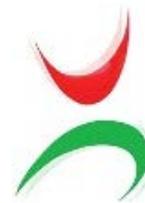


Sport Psychology





Annals
of
Sport
Applied Science



The Relationship between Indicators of Competitive and Trait Anxiety with the Rate of Injury in Elite Badminton Players

¹Hasan Alikhani*, ¹Zohreh Kamyab, ²Mohammad Alikhani, ³Asieh Mirza Aghajani

1- Department of Physical Education and Sport science, Lahijan Branch, Islamic Azad University, Lahijan, Iran.

2- Department of Physical Education and Sport science, University of Guilan, Rasht, Iran.

3- Department of Physical Education and Sport science, Rasht Branch, Islamic Azad University, Rasht, Iran.

INTRODUCTION

It is reported that sport Injuries can related with some of psychological indicators (1). Since nearby points badminton players and need to move fast reaction time to respond to the penalty shootout can causes increase anxiety, It seems this psychological factor are related with rate of athletes injuries (2). So, the purpose of this study is determine of the relationship between competitive and trait anxiety with the rate of injury in elite badminton players.

METHODS

120 elite badminton players (50 women and 70 men) volunteered to participate in international Fajr races in 1392. To assemble questionnaire and report from of improved injuries fuller’s

Corresponding Author:
Hasan Alikhani
E-mail: alikhanihasan@yahoo.com

questionnaire (2006) was used and also Spilberg's trait and competitive state anxiety (CSAI-2) was used.

RESULTS

It is observed significant relationship between the rate of injuries with trait anxiety and cognitive subscales of competitive state anxiety. Also frequency of knee(31%), elbow(25%) and shoulder (19%) injuries has been estimated.

Table 1. Results of Pierson correlation coefficient about variable of state/ trait anxiety& extend of injury.

Variable	Statistic Test	trait anxiety	tate/ competitive anxiety		
			cognitive	physical	self-confidence
Extend of injury	correlation coefficient	0.727	0.504	0.153	-0.397
	Sig	0.001**	0.047 **	0.571	0.128
	N	120	120	120	120

significant relationship between the rate of injuries with trait anxiety and cognitive subscales of competitive state anxiety. $P < 0.05^*$ $P < 0.01^{**}$

Table 2. The Injured parts

Injured parts	<i>Frequency</i>	<i>Percentage</i>
Shoulder	38	19
Elbow	50	25
Knee	62	31
Wrist	18	9
Ankle	12	6
Leg(tibia, fibula)and	20	10
Achilles tendon	200	100
Total		

The extent of injury in the knee (%31).



CONCLUSION

Since badminton is a kind of sport that needs significant and effective decisions and the speed of decisions reflects in better or worse performance, it is obvious that it increases stress. According to the theory of muscle tension, increasing stress causes muscle tension, so it is possible to increase injuries measurement (3). On the other hand, stadiums with high degrees of stress provide stressful situations and trauma which can cause injuries (4).

REFERENCES

1. Iizuka, C. A., Marinovic, W., Machado, A. A., & Vilani, L. H. P. (2005). Anxiety and performance in young table tennis players. *Sports Science Research*, 26(3), and 73.
 2. Ivarsson, A., & Johnson, U. (2010). Psychological factors as predictors of injuries among senior soccer players. A prospective study. *Journal of Sports Science and Medicine*, 9(2), 347-352.
 3. Johnson, U. (2006). Sport injury, psychology and intervention: an overview of empirical findings. *Int J Sport Exercise Psychol*, 57, 1-10.
 4. prospective study. *Journal of Sports Science and Medicine*, 9(2), 347-352.
- Robert S. Weinberg, Daniel Gould (201۳). "Foundation of sport and exercise psychology". Human Kinetics, 5th Ed.





Comparison of Psychological Skills Using between Male and Female Volleyball Players during Exercise and Competition

¹Akbar bohloul* ²Shahzad Tahmasebi Brojeni, ³Reihaneh Ezzati

- 1- MA student motor learning and control
- 2- PHD Assistant Professor motor behavior
- 3- MA student physical education

INTRODUCTION

Sport experts believe that sport performance has not been only affected by physical skills, but it is also influenced by psychological factors. To achieve peak performance athletes to physical skills, mental skills, physical fitness and injury prevention are needed(1). Gender is a very important interpersonal factor in competitive sports. Therefore, Because of the nature of volleyball that require high mental preparation, important role of psychological skills in performance of athletes, existence of comprehensive test of performance strategies - 2 in estimating important skills without using it inside the country, the researchers compare the psychological skills of male and female volleyball players during training and competition.

Method

Participant. The statistical population includes students participating in 12th Iranian students sport Olympia (summer 1393), and 89 person (48 females and 41 males) of them as a sample with a mean age of $3/1 \pm 7/21$ and the history of sports $03/3 \pm 5/7$ years in volleyball and completed the second version of the questionnaire performance strategies.

Corresponding Author:

Akbar bohloul

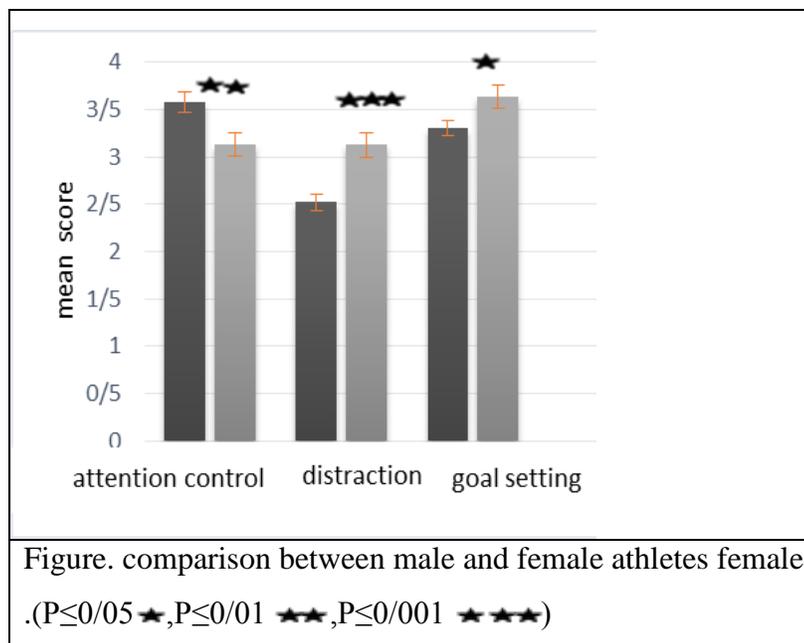
E-mail:akbarbohloul69@ut.ac.ir

Instrument. In this study, the second version of the questionnaire performance Strategies (TOPS-2) was used to measure psychological skills. The questionnaire consisted of 68 questions which covers both practice and competition conditions. 9 psychological strategies used in competition are: activation, automatic, emotional control, goal setting, imagery, negative thinking, relaxation, self-talk and distraction. Also strategies used in exercise included above mentioned items, with two differences: First, replace the negative thinking with attention control and the second difference, there factor distraction in competition. Hardy, Roberts and Thomas (2010) reported appropriate validity and reliability for this instrument (2). And Shahbazi, tahmasebi and motasharei (1392) examined validity and reliability of the instrument on the Iranian athletes, and it is recommended for use in sports science research.

Statistical analysis. Descriptive statistics (mean, standard deviation), k-s test – to assess data normality - and independent t-tests to assess mental skills of male and female groups- was used. Significance level was $P \leq 0/05$.

RESULTS

In comparison between male and female athletes significant difference was observed during exercise in the skills of goal setting ($P = 0/02$) and during competition in attention control ($P = 0/008$) and distraction ($P = 0/000$).so, male performed better in goal setting and distraction and female performed better in attention control (figure).



CONCLUSION

Results of this study showed that male were better than female in goal setting that is consistent with the results of Dachen (2012) who reported men are better in goal setting(3). Results of research also indicated that during competition male performed better in distraction and female performed better in attention control that isn't consistent with results of the Dachen's study (2012) in attention control subscale. The possible reason could be noted different type of sport (individual and team), different skill levels and the places where the study is administered.

Our findings suggest that practicing specific performance strategies, along with physical exercises and techniques can help team sport players with different sex improve their performance. Therefore, coaches and sport psychologists recommended considering mental skills training type of sport, gender differences, competition and practice conditions as effective factors.

References

1. Bois J, Sarrazin P, Southon J, Boiché J. Psychological characteristics and their relation to performance in professional golfers. *The Sport Psychologist*. 2009;23:252-70.
2. Hardy L, Roberts R, Thomas PR, Murphy SM. Test of Performance Strategies (TOPS): Instrument refinement using confirmatory factor analysis. *Psychology of Sport and Exercise*. 2010;11(1):27-35.
3. Dachen J. Test of performance strategies among college going athletes: differences across type of sports and gender. *International Journal of Behavioural Social and Movement Sciences*. 2012;1(4):139-47.





The Comparison of Strategies of Coping with Stress and Goal Orientation in Male and Female Athletes’ Students in Guilan Province

¹Hossein Ramezani, ²Hasan Alikhani*, ³Seyed Kazem Mousavi

1. Department of Physical Education and Sport Science, Islamic Azad University, karaj, Iran.
2. Department of Physical Education and Sport Science, Islamic Azad University, Lahijan, Iran.
3. Department of Physical Education and Sport Science, Islamic Azad University, East Tehran, Iran.

INTRODUCTION

Gagne and Zakerman (2003) considered 5 strategies of coping with stress in two dimensions emotion-focused and problem-focused which they are classified to strategies of self-help, approach, accommodation, avoidance and self-punishment.

Goal orientation is one of the factors which may predict rate of stress in sport. Feeling success or failure depends on athletes’ goal orientation which includes two dimensions of task-orientation and ego-orientation. For this reason, purpose of this research is consideration of relationship between strategies of cope with stress and goal orientation in 196 athletes students (16-18) years old and it wants to try in process of selection of useful activities in get rid of stress by indicating mechanism of nervous system control and get rid of stress and consideration to kind of goal orientation in these athletes. Previous researches used less than new strategies of coping with stress in athletes.

METHODS

Corresponding Author:

Hasan Alikhani

E-mail: alikhanihasan2@gmail.com

This research is descriptive-correlative. From two questionnaires was used. Strategies of cope with stress(COPE) that it includes five methods of coping (self-help, approach, accommodation, avoidance and self-punishment) The first three strategies are problem-focused coping and the last two strategies are emotion-focused coping and goal orientation questionnaire (TEOSQ) which measures two dimensions of task-orientation and ego-orientation.

For determining validity was used professional idea from 10 psychological and sport management professors of Guilan University and was estimated questionnaire's reliability $r= 0.82$ and $r= 0.81$ respectively. The research findings has been analyzes by SPSS software. Statistical tests such as t-test in level of $P \leq 0.05$ was used.

RESULTS

The comparison of strategies of coping with stress in male and female athletes' students and their goal orientations has been shown in 1 and 2 tables.

Table 1- comparison of strategies of coping with stress in female and male athletes students

Strategies of Coping with stress	Group	M	SD	T	level of significant
Self-help	Female	21.9	2.3	-2.482	0/014*
	Male	20.5	4.1		
Approach	Female	22.1	2.4	-3.648	0/001*
	Male	23.8	3.4		
Accommodation	Female	22.1	2.7	-2.739	0/007*
	Male	23.4	3.2		
Avoidance	Female	20.1	2.6	-7.034	0/001*
	Male	16.4	3.8		
Self-punishment	Female	20.5	2.5	-0.315	0/753
	Male	20.3	3.6		

* significance of level $P \leq 0.05$

Data of table 1 indicated that average of strategies of self-help and avoidance (significant) and self-punishment in female is more than male. But results of t-test indicated that among scores of all strategies of coping with stress is significant difference ($P \leq 0.05$).



Table 2- comparison of dimensions of goal orientation in female and male athlete's students

Goal orientation	SD	M	group	t	p
Task-orientation	female	3.9	14.9	-3.717	0.001
	male	3.6	12.7		
Ego-orientation	female	3.7	14	-0.582	0.753
	male	3.6	14.4		

Using of t-test revealed that task-orientation is more in female that this difference was significant ($P \leq 0.05$). But ego-orientation is more in male that this difference wasn't significant.

CONCLUSION

Research findings indicated that male use more than female from problem- focused strategy for coping with stress. Also, male use task-orientation and female use ego-orientation more (3). The exact recognition of strategies of coping with stress and goal orientation require to more consideration in different level of athletes.

REFERENCES

1. Yousefi, M., Ramzaninezhad, R. , (2009). The relationship between team motivational climate and goal orientation in athletes, *World Journal of Sport Sciences*, 2 (2): 125-128
2. Hammermeister, G., Burton D., (2004). Gender differences in Coping with Endurance Sport Stress . *Journal of Sport Behavior* , 27(2): 148-164
3. Potgieter, R., (2011). Goal orientation, the Growth Mindset and Coping Strategies for Success and Failure in Competitive Sport . Dissertation, University of Pretoria



The Most Important Mental Scales Distinguishing Elite from Non-Elite young Female Judo Athletes in Hamedan

¹ Fatemeh Moradi, ² Hassan Rohbanfard*

1. Physical Education and Sport Science Department, Bu-Ali Sina University, Hamedan, Iran- , fatememoradi2012@yahoo.com,
2. Room 420, Physical Education and Sport Science Department, Bu-Ali Sina University, Hamedan, Iran

INTRODUCTION

For the purpose of “talent identification,” it seems important to clarify the most effective psychological characteristics of athletes in different sports for the lower age groups (childhood & teenager). The goal of the present study, therefore, was to identify the most critical mental skills among elite young judo athletes in comparison with a counterpart non-elite group in Hamedan.

METHODS

56 elite and 56 non-elite judo female athletes aged 14-17 from the province of Hamedan completed the Ottawa Mental Skills Assessment Tools-3 (OMSAT-3). This questionnaire measures three main conceptual components including: foundation skills (goal setting, self-confidence and commitment), psycho-somatic skills (stress reactions, fear control, relaxation and activation) and cognitive skills (focusing, refocusing, imagery, mental practice and competition planning).

RESULTS

Results showed significant differences between elite and non-elite judo athletes in all three components of mental skills. In addition, elite athletes compared to non-elites were significantly better in goal setting, commitment, stress reactions, fear control, focusing, and refocusing.

CONCLUSION

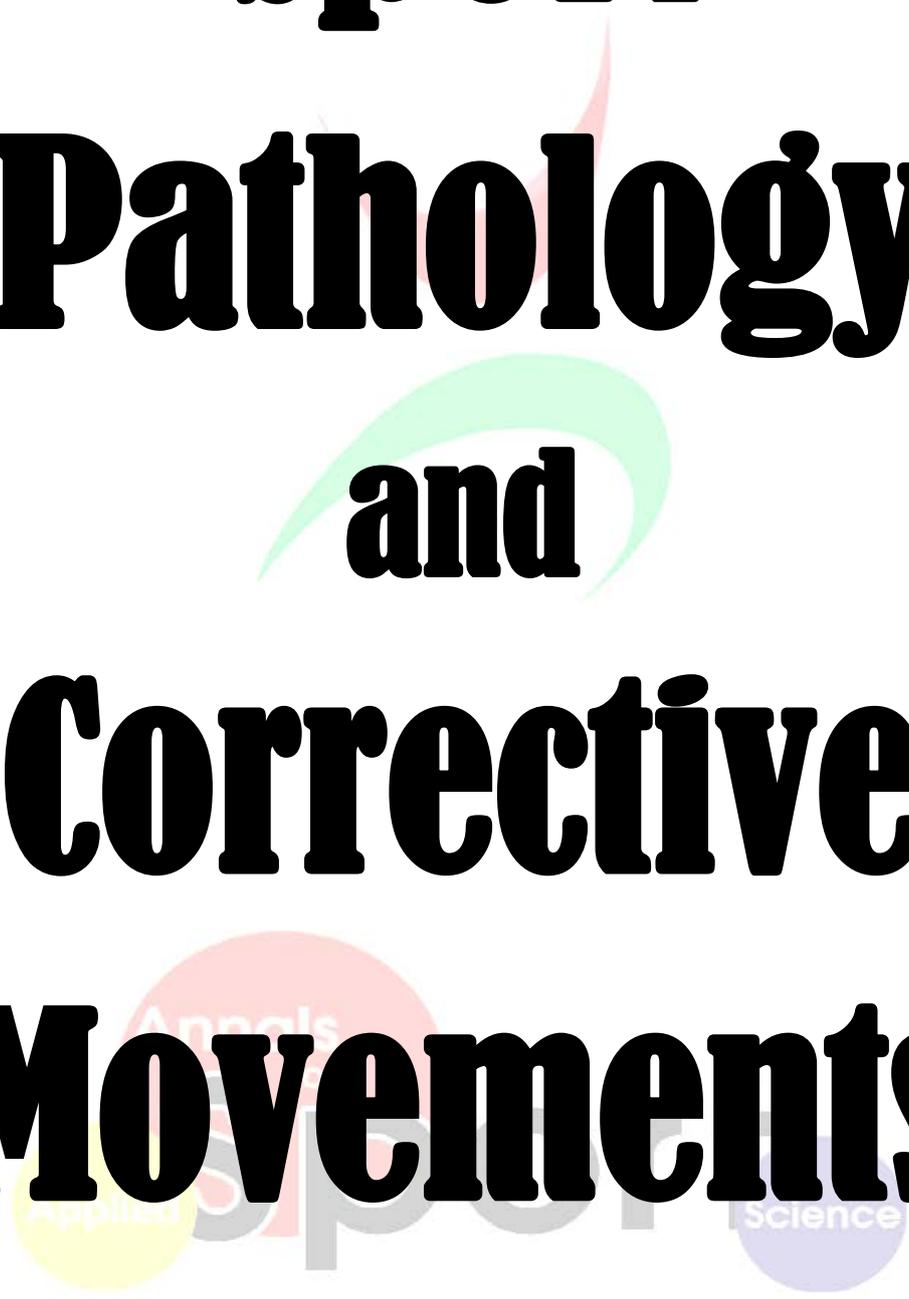
These results can be used by coaches and practitioners for talent identification purposes.

REFERENCES

1. Pashabadi, A., Shahbazi, M., Hoseini, S. M., Mokaberian, M., Kashanai, V., & Heidari, A. The Comparison of mental skills in elite and sub-elite male and female volleyball players. *Procedia-Social and Behavioral Sciences*. 2011; 30: 1538-1540.
2. Pion, J., Fransen, J., Lenoir, M., & Segers, V. The value of non-sport-specific characteristics for talent orientation in young male judo, karate and taekwondo athletes. *Archives of Budo*. 2014; 10: 147-152.
3. Mohammadzadeh, H., & Sami, S. Psychological Skills of Elite and Non-Elite Volleyball Players. *Annals of Applied Sport Science*. 2014; 2(1): 31-36.

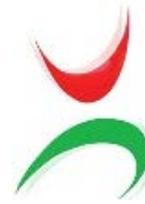


**Sport
Pathology
and
Corrective
Movements**





Annals
of
Sport
Applied Science



The Immediate and Prolonged Effects of Physical Therapy on the Gait of the Acute and Chronic Hemiplegia Patients

¹Mohammad Reza Hosseinabadi*

1. Department of Physical Education and Sport Sciences, Neyshabour Branch, Islamic Azad University, Amol, Iran.

INTRODUCTION

Stroke is one of the major causes of death and disability in every society and the most common event resulting from stroke is hemiplegia or hemiparesis. The purpose of this study is to investigate the immediate and prolonged effects of physical therapy on Mechanics gait index of the patient of acute and chronic hemiplegia.

METHOD

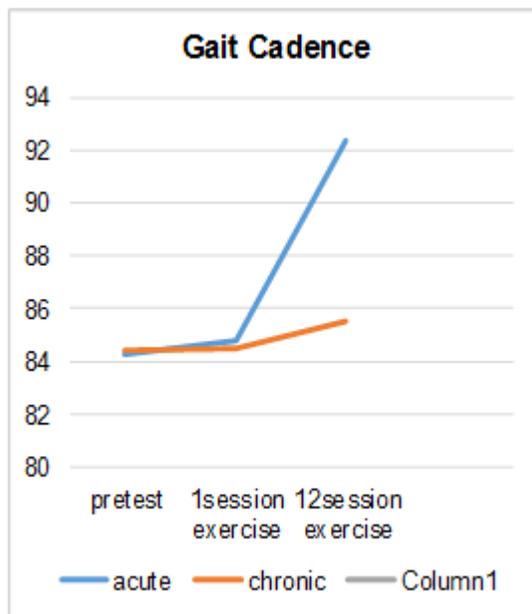
This quasi-experimental study involved the population of hemiparetic patient’s secondary to stroke in Neyshabour, Iran. Twenty-four patients (40/08±8/21 years old) were selected and randomly assigned into one of the two groups: acute group (N=12), chronic group (N=12). Both groups conducted the training protocol for 4 weeks and in every week, three sessions and every session for one hour.

Demographic questionnaire is used to collect individual information. Then, after conducting a practice session and the end of protocol training (after 4 weeks) in both groups ,two movement pattern index including: speed of gait, and cadence were assessed in the pre-test and post-test. Analyzes were conducted by using paired and independent t-tests 16 SPSS software.

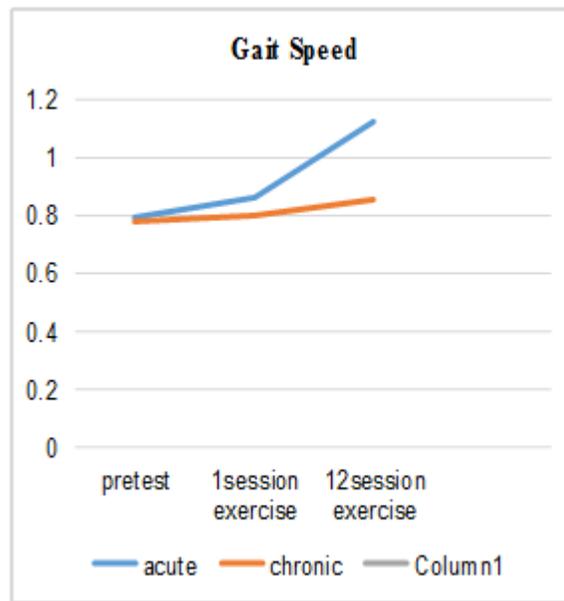
RESULTS

Table 1. comparison of cadence and speed gait of subjects before and after 1 session and 4 weeks exercise

	cadence			Speed gait		
	Pre test	After a session exercise	After 12 session exercise	Pre test	After a session exercise	After 12 session exercise
acute	84.2 ± 0.7	84.7 ± 0.8	92.3 ± 0.4	0.79 ± 0.10	0.86 ± 0.06	1.12 ± 0.03
chronic	84.1 ± 0.7	84.0 ± 0.1	80.0 ± 0.6	0.78 ± 0.14	0.81 ± 0.12	0.85 ± 0.01
Sig	0.907	0.926	$***, 0.1$	0.91	0.101	$***, 0.3$



a) gait Cadence change



b) gait speed change

CONCLUSIONS

The results showed that physical therapy improve gait speed and cadence in acute hemiplegic patients, but in chronic hemiplegia patients improving were observed only in gait speed and at the end of exercising sessions. Thus the sooner therapeutic training is started, more effective the treatment will be.

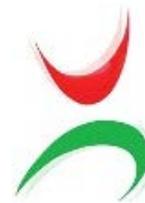
REFERENCES

- Maguire C, Sieben J, Erzer F, Goepfert B, Frank M, Ferber G, Et all. How to improve walking, balance and social participation following stroke: a comparison of the long term effects of two walking aids—canes and an orthosis TheraTogs—on the recovery of gait following acute stroke. A study protocol for multi-centre, single blind, randomised control trial. BMC Neurology 2012; 12:18.
- Abe H, Michimata A, Sugawara K, Sugaya N, Izumi SH. Improving gait stability in stroke hemiplegia patients with a plastic ankle – foot orthosis. Tohoku J.Exp. Med, 2009; 218(3): 193-199



3. Stefan Hesse, Klinik Berlin. Treadmill training with partial body weight support after stroke: A review. *NeuroRehabilitation* 2008; 22 (2007): 1–11.
4. Hyun Suh J, Jeong Han S, Young Jeon S, Jeong Kim H, Eun Lee J, Sik Yoon T, et al. [Effect of rhythmic auditory stimulation on gait and balance in hemiplegic stroke patients](#). *NeuroRehabilitation* (2014); 34(1): 193-199.
5. [Kang HK](#), [Kim Y](#), [Chung Y](#), [Hwang S](#). Effects of treadmill training with optic flow on balance and gait in individuals following stroke: randomized controlled trials. *ClinRehabil*. 2012; 26(3):246-55.
6. Patil P, Rao S. A. Effects of Thera-Band® elastic resistance-assisted gait training in stroke patients: a pilot study. *European Journal of Physical and Rehabilitation Medicine* 2011;47(3):427-33.





The Effect of Two Methods of Exercise Therapy on Endurance of Trunk Muscles in Employed Women with Non-specific Chronic Low Back Pain

¹Farideh Ghasemi*, ²Seyed Sadreddin Shojaeddin,
³Mohammad Hoseyn Alizadeh

1. M.Sc, Department of Corrective Exercises and Sports Injuries, Kharazmi University, Tehran, Iran.
2. Associate Professor, Department of Corrective Exercises and Sports Injuries, Kharazmi University, Tehran, Iran.
3. Associate Professor, Department of Corrective Exercises and Sports Injuries, Tehran University, Tehran, Iran.

INTRODUCTION

Low back pain reduces the physical and social activities as well as the joy of life. Low Back Pain (LBP) has been considered as a major social problem imposing high financial burden on health care costs and creating various health problems in industrial countries. Non-specific chronic low back pain is one of the most common causes of absence from work. Physical exercise is also one of the treatment methods for patients with chronic low back pain. The aim of this study was to compare the effect of two methods Traditional exercise and Pilates exercise on pain and endurance of trunk muscle in Employed Women with non-specific chronic low back pain.

METHOD

In this clinical trial, 45 Employed women with non-specific chronic low back pain selected through randomly assigned and Available sampling. Pain and Endurance of trunk flexor-extensor muscles (both ordinal) were assessed the Visual Analogue Scales (VAS) and (ITOO) tests. Experimental groups performed exercise therapy for 8 weeks, three sessions per week and 45 – 60 min. T test and ANOVA was used for statistical analysis in significant level of $p < 0.05$.

Corresponding Author:

Farideh Ghasemi

E-mail: ghasemi.t1391@yahoo.com

RESULTS

After treatment, The mean trunk flexor, extensor muscles endurance increased in the Experimental groups ($P < 0.001$).

Table 1: t test results in the trunk of strength flexor and extensor muscles in the three groups pre-test and post test

Variable	Endurance of trunk extensor muscle			Endurance of trunk flexor muscle		
	Pretest Mean \pm SD	Posttest Mean \pm SD	P valu	Pretest Mean \pm SD	Posttest Mean \pm SD	P valu
Traditional	17/33 \pm 1/92	22/30 \pm 2/83	$P < 0.001$	20/23 \pm 3/24	20/96 \pm 4/14	$P = 0.003$
Pilates	17/04 \pm 2/02	24/19 \pm 3/73	$P < 0.001$	20/78 \pm 3/21	20/32 \pm 3/41	$P < 0.001$
Control	17/38 \pm 2/00	17/22 \pm 2/21	$P = 0.344$	20/40 \pm 3/36	20/06 \pm 3/10	$P = 0.067$

Data analysis showed that there was significant difference in the pain intensity and trunk endurance of flexor muscles between groups ($P = 0.05$). While did not observed change in the two factors for the Control group ($P > 0.05$).

Table 2: Comparison average of study variables in the three groups pre-test and post test

Variable	(Ratings) pain		
	Pretest Mean \pm SD	Posttest Mean \pm SD	P valu
Traditional	0/43 \pm 1/04	2/33 \pm 0/80	$P < 0.001$
Pilates	0/40 \pm 0/60	2/46 \pm 0/01	$P < 0.001$
Control	0/46 \pm 0/93	0/06 \pm 0/94	$= 0.090$

CONCLUSIONS

The results showed that exercise therapy can increase endurance of trunk muscles in patient. The pilates exercise group showed more desired recuperates than traditional exercise group ($p = 0/05$). It seems that pilates exercise is an effective method in Decrease pain and Increase trunk flexor muscles and can be seen as a complementary approach.



REFERENCES

1. Stankovic A, Lazovic M, Kocic M, Zlatano D. Spinal segmental stabilization exercises combined with traditional strengthening exercise program in patients with chronic low back pain. *Acta Fac Med Naiss* 2008; 25(3): 70-165.
2. Nachemson A, Waddell G, Norlund Al . "Epidemiology of neck and low back pain. Neck and Back pain: the scientific evidence of causes, diagnosis and treatment". Philadelphia 2000. P: 165.
3. Bigos SJ, Battie MC. Risk factors for industrial back problems. *Arch Phys Med Rehabil* 2008; 4: 2 .-11.
4. Metale A. Comparison of endurance, coordinator and combined endurance-coordinator exercise effects on disability in men with chronic lumbar pain. *J Hamadan Med Sci* 2006; 12(2): 35- 9 [Persian] .
5. Golpaigani M, Ahanjan S, Maleki M. Effect of one cycle corrective movement in hamstring muscles plasticity and pain reducing. *J Res Sport Sci* 2007; 14(1): 113-24.





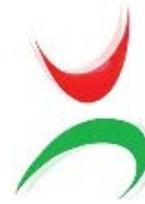
Exercise, Training

and Health

Journal
of
Sport
Applied Science



Annals
of
Sport
Applied Science



Comparison of Morning Exercise Effect on Some Physical Fitness Factors of Urban and Rural Students in the city of Astara

¹ Narges Aliniya*, ¹ Zahra Hojatti

1. Department of Physical Education and Sport Sciences, Rasht Branch, Islamic Azad University, Rasht, Iran.

INTRODUCTION

The purpose of this research was to analyze effects of morning exercise on physical fitness of urban and rural students.

METHOD

We chose samples from elementary students (fourth, fifth and sixth grade), 2 urban schools and 2 rural schools in the 92-93 school year. Then, the students of a school were considered as an experimental group. In the same from conditions were taken initial tests from both of group. And then students’ movements of walking and running for 8 weeks and 2 days a week were analyzed. At the end of training program was taken physical fitness test from students and average groups were compared.

RESULTS

The result of the test showed that morning exercise training program had significant effect on muscular endurance of urban students compared with rural students.

CONCLUSIONS

Morning training program at agility and flexibility was effective on flexibility and agility of rural students.

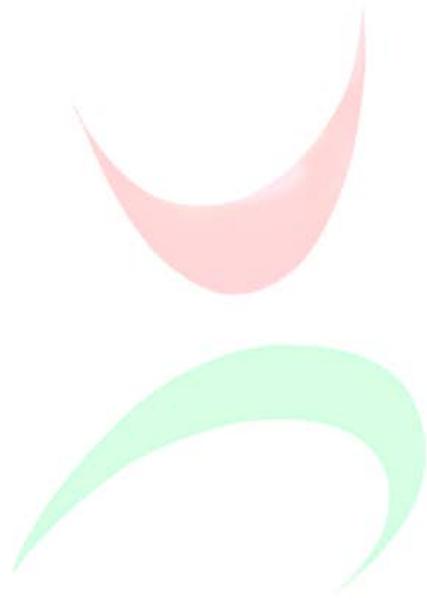




SECOND SECTION

Poster Presentation





Annals
of
Sport
Applied Science



Sport Management





Annals
of
Sport
Applied Science

Evaluation of the Incentive to Participate in the Sport and Recreational Activities in the City of Urmia

¹Mostafa Rezaei, ²Akram Mehdizadeh, ³Habib Ghorbani

1 – MA, University of Tehran, Tehran, Iran

2 - PhD student, University of Tabriz, Tabriz, Iran

3-MA, Science and Research Branch, Islamic Azad University, Tehran, Iran

The aim of this study was to investigate how to increase incentives to attract and increase citizen participation in public sports and recreation provides the city of Urmia in this regard are solutions. In this regard, the study of literature, books, literary theoretical research and previous research, some important factors that can attract and enhance citizens' participation in sport and recreation programs involved were identified.

These factors, mass media, sports venues and facilities, private organizations and institutions, Non-sporting officials and planners, education, sport, demands and social issues, cultural issues and social initiatives that attract and increase the participation of citizens in each of their roles in sport and recreation programs were examined In the end, these factors were prioritized The importance of each of them in planning future sport and recreational Urmia specified. This research is a descriptive - analytic and the type of research has been done in the field. All citizens over 20 years with a minimum degree of Urmia city, population of the study were selected. The reliability of the questionnaire was a valid test - retest ($r = 0.81$), respectively, were used as research tools. Research has shown that strategies have been explained in relation to the media, venues and sports facilities, sports and education, sport officials and planners in attracting and increasing citizen participation in public sports and recreational play a role. According to research findings, devote more time to sports programs at the provincial network, Planning for parks and recreational activities such as hiking and biking not useful, No fee for those who consider their athletic programs And the use of specialist coaches are strategies that can citizen participation in sport and recreation programs improve.

The Relationship between Intellectual Capitals with Organizational Effectiveness in Tehran Municipality Sport Organization

¹Maryam Habibi Vatan, ²Abbas Khodayari

1. Sport Management, PhD student, Karaj Branch, Islamic Azad University, Iran
2. Department of Physical Education and Sport Sciences, Karaj Branch, Islamic Azad University, Iran.

INTRODUCTION

It is reported that organizational effectiveness, inferring organizational goals is the first step through inferring organization effectiveness. From industrial societies to information generation, the necessity of intellectual invest has been increased. 1. Intellectual capital can be mentioned as knowledge possessions of an organization or a company. 2. In previous economy the worth was the physical possession but nowadays economy job worth is intellectual capital of company and knowledge. 3. Update successfulness and beneficial of company or organization is caused by noticing the knowledge and. Intellectual Capital by getting the main model and evaluating method, measurement and assessing, intellectual capital the planning and instructing and control and observing the companies and organizations will be possible. 4. Badieyan (1387) considering the relation between knowledge management processes with intellectual invests showed that intellectual capital demands and knowledge management has positive relation that each variety in knowledge management demands with causing variety in intellectual capital process. On the other hand thoughtful capital management in organizations will cause knowledge and benefits of organizational unobvious possessions and has effect on knowledge management (6.5). However, the researches done about this subject shows that thoughtful capital effects on organization efficiency. But because the research on varieties depends on time, position, social and economic and cultural conditions and also there are a few researches on sport environments in Iran and other countries, so this research presents the relation between thoughtful capitals with organizational effectiveness in Tehran municipality sport organization.

METHOD

Method of this research is descriptive-correlational and has been done through as field method. The statistical population of this study was the employee's members of Tehran municipality sport organization and the sample was selected according to the volume population (150 members). 140 out of 150 questionnaires was received. In this research, intellectual capital measurement was driven from bonitos standard questionnaire with 42 questions, organizational effectiveness measurement was from coordinate questionnaire with 19 questions. Information analyzing method; in prediction concept, for determining the relationship between varieties, the Pearson and recreation with multi varieties correlation Test has been used.

Table1. Relation between intellectual Capitals with effectiveness concepts

	relationship	Job satisfaction	organizing	decision
Thoughtful invest				
Pierson correlation	.059	0.797	0.705	0.791
meaning ness	0.000	0.000	0.000	0.000

There was a positive and meaningful relation between intellectual invests Tehran municipality sport organization employee's with (relationships $\alpha=0.000$, job satisfaction $\alpha=0.000$, organizing $\alpha=0.000$, decision $\alpha=0.000$) in Pierson correlation Test. Chapter 2(Recreation model).

Table 2: Regression coefficients of the regression model

model	Un standard ratio		Standard ratio	t	sig
	B	Standard error	beta		
stability	3.396	4.095		0.829	0.408
Human invest	-0.145	0.107	-0.123	1.352	0.179
Instructing invest	1.320	0.086	0.869	15.282	0.000
Customer invest	0.322	0.130	-0.206	2.480	0.014

Predictive variety; human invests, instructing invests, costumer invests. Sample variety; effectiveness.



The results in chapter 2 shows that thoughtful capitals instructing invest ($\alpha=0.000$) and customer invest ($\alpha=0.014$) are predictive for organization effectiveness.

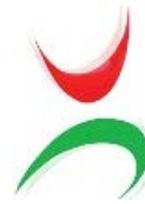
RESULT

The aim of this study was to determine the relation between intellectual Capitals with effectiveness in Tehran municipality sport organization. The results showed that intellectual Capital has positive and meaningful relation with effectiveness (job satisfaction, organizing, decision, relations). The result of this study is coordinate with (7) study result. The results showed that intellectual Capital is one of effective factor in sport clubs. It is also coordinate with (Hung and Hu) 2007 study. They showed that intellectual Capital specially human and instructing capitals are the first performance. It can be told that the reason for coordinating this study with other studies results is that the organizations pay attention to human capitals the most important possession of organization and important factor for organization success. According to the regression result in chapter 2, intellectual Capital (instructing capitals $\alpha=0.000$) and (customer capitals) have been meaningful predictive for effectiveness of sport organization. The result of this study is coordinate with 2study. The 2study was about relation between knowledge management and organization effectiveness in Australia industries. The results showed that there is meaningful relation between organization effectiveness and knowledge management. The result of this study shows that instructing invest and customer capital have more effect on organization effectiveness but human capital is as human knowledge that sport organization has the lack of its members knowledge.

REFERENCES

1. Guthries, Pettyr., Johanson U. Sunrise in the knowledge economy: managing, measurement and reporting, accounting, auditing & account ability . 2001, Journal, Vo1, 14-no 4, 366-382.
2. Burke, M. The relationship between knowledge management and organization effectiveness. Journal of information system 2001. Vo1.9, No .1, 23-45.
3. Alvani, Sayyed Mahdi, Shirvani, Alireza (1385) social capitals Concepts, theories, applications, Mani publication, first edition.
4. Anvari Rostami, Aliasghar, Rostami, Mohammad Reza (1382). Model measurement and measuring method and assessing thoughtful invests in firms. Accounting considering magazine NO34 page 51.
5. Sanchez, P., Chaminade, C. and Olea, M. Mangement of Intagible an Attempt to Build atheory. Journal of Intellectual capital. 2000, Vo1. 1 No.4, 312-327.
6. Hsu, Hsiu-Yueh. Knowledge Management and Intellectual Capital. 2006, Dissertation for Doctoral of Philosophy, Southern Illinois University at Carbondale.
7. Kamukama, Nixon, Ahiauzu, Augustine & Ntayi :, Joseph M. Competitive Advantage : Mediator of Intellectual capital and performance. 2011, Journal of Intellectual capital, Vo1.12, No, 1, 152-164.





Investigating the Relationship between Self-Efficacy and Burnout Teachers of Physical Education Chalous City

¹Abdullah Moslehi*, ²Azim Salahi Kojoor, ³Rezvaneh Hosseinejad,
⁴Sahar Mohebbi

1. Master in Sports Management, Kian Sports Club Manager
2. Master in Sports Management, lecturer of Islamic Azad University, Chalous Branch
3. Master in Sports Management, lecturer of Mazandaran University
4. Sports Management student at Islamic Azad University Ayatollah Amoli, Amol

INTRODUCTION

The aim of this study is the investigation relationship between self-efficacy and burnout teachers male and female physical education of city Chalous. This study is a descriptive- analytic one and it has been done by means of a fieldwork.

METHODS

For determining burnout and self-efficacy teachers, 80 teachers physical education evaluated their schools in the year 2013-2014. A questionnaire muslach with 22 questions of burnout and a questionnaire emmer & hikman with 15 question of self-efficacy was used for gathering data. The degree of reliability of the questionnaires used in this study was calculated 0/84, for burnout and 0.86 for self-efficacy

Corresponding Author:

Abdullah Moslehi

E-mail: Moslehi320@gmail.com

RESULTS

Results obtained from the examination showed that there is significant difference between the burnout and self-efficacy in teachers male and female physical education viewpoints.

Table 1. Results of the Pearson correlation coefficient

P	r	N	variables
0/05	0/123	80	Feelings of self-efficacy Burnout
0/05	0/69	80	Age Burnout
0/05	0/88	80	Age Feelings of self-efficacy

Table 2. The results of the analysis of dislocation theory of gender in the sense of self-efficacy

p	t	df	Mean	Abundance		Burnout
0/03	2/817	80	84/9	40	Men	
			76/3	40	Women	
0/346	1/2	80	65/6	40	Men	Feelings of self-efficacy
			69/8	40	Women	

CONCLUSIONS

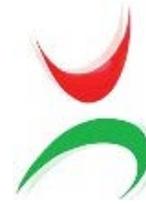
In the case of the differences between the male and female teachers' viewpoints in the section of burnout and self-efficacy, results obtained showed that self-efficacy was seen more in the female and there is significant difference between the male and female in section self-efficacy viewpoints. Results obtained showed that burnout more in the male and there is significant difference between the male and female in section burnout viewpoints ($p=0/03$). Order the most factor effect in section self-efficacy and accomplishment the most factor influence in section burnout.



REFERENCES

1. Stuart, P. (2009). Investment in EAP'S Pay off Personal Journal, 72(2), pp (42-47
2. Schaufeli wilmar&salanova (2007). Efficacy or noefficacy that the question?burnout and work engagement, and their relationship whit efficacay beliefs.anexity stressand coping,vol 20 iso 2,p 177 .
3. Enair , skaalvik.(2007).dimensions of teacher self- efficacy and relation with strain factors, perceived collective teacher efficacy ,teacher Burnout
4. Schwarzer, R., Schuz, B., Ziegelmann, J. P., Lippke, S., Luszczynska, A., & Scholz, U. (2007). Adoption and maintenance of four health behaviors: Theory-guided longitudinal studies on dental flossing, seat belt use, dietary behavior, and physical activity. *Annals of Behavioral Medicine*, 33 (2), 156–166.





Evaluation and Analysis of Personal, Family and Social Issues Affecting the Participation of Razi University Kermanshah Female Students Proven Communicative Approach of Sports

¹Fereshteh Mohammadi Cheshmeh Kabodi*, ²Dr. Bahram Yoosefy,
³Dr. Reza Saboonchi

1. MA Physical Education, Borojerd Branch, Islamic Azad University, Borojerd, Iran.
2. Associate Professor, Razi University of Kermanshah, Kermanshah, Iran.
3. Assistant Branch, Borojerd Branch, Islamic Azad University, Borojerd, Iran.

INTRODUCTION

In our country women due to various factors in the use of the sports facilities is a serious problem, with both a lack of mobility. In many countries, governments are planning to optimize planning and mobility in order to make the ladies of leisure and sporting activities, they will be done (4).

METHOD

It was the kind of descriptive-analytical and practical goal is. Statistical research community Razi University Kermanshah 7050 n female students in the second half of the school year is 92-91. With a sample size of $n = 361$ number table example, Cohen and researcher managed to collect information was 277 people (76%). The questionnaire measuring 33 questions researcher was Delphi. Validity and reliability of the questionnaire in the form of formal confirmation that using Cronbach alpha test 89/0 was calculated. Factor analysis and test Bartlett and KMO coefficient data for analysis was used.

RESULTS

The results of factor analysis showed that do not exercise family members, The economic status of the family, family obligations, take care of the child and the duties of the parents and wife of opposition and was home with the exercise of the most important obstacles to women's participation in sports is a family. The physical limitations related to the ability of women to perform some of the exercises, due to time and deficit concerns working time, too, the lack of the necessary skills, laziness, impatience, a loss of interest, being shy, lack of confidence, community women's self-confidence The most important obstacles to the exercise of personal participation of women. And also do not support educational centers such as the university, do not support inappropriate information, friends, fear of physical damage and not having the proper pattern of the most important barriers are social.

Factor analysis of the social, family and personal involvement The students of University of Kermanshah in sports				
Barriers	Factors			Subscribe oriented
	First	Second	Third	
Social			0/91	1/00
familial		0/93		1/00
Personal	0/96			1/00
Equity	1/07	0/67	0/50	
Percent of the variance	21/56	13/48	10/04	

CONCLUSIONS

According to the coefficient KMO 366.76 Bartlett test and 0.78, respectively, between the priorities of social barriers and the coefficient of 0.82 and tests: KMO 465.65 Bartlett family and barriers between the priorities of the coefficient KMO 474.50 Bartlett test: 0.78, respectively, and mean levels of 0.001 Personal barriers in the partnership between the priorities of women's sports, there are significant differences, And in the order in which the findings were mentioned by prioritizing, And with the research (Ehsani et 1382) that 40% of female students, do not in any sport activity company and its cause, lack of time, resources, interest, money, social relationships, by the vehicle of infinite knowledge, skill and health has been announced, complies, As well as with research (part Nya 1382) also complies to the following results in the context of the factors that hinder the exercise can be found in female students: laziness and impatience with 13/9% of the first rank, second class facilities with 13%, and the habit of not having to exercise with 12/4% of the third rank is assigned. The next levels are high, because the



priority concerns of having other issues, not having sufficient skills and lack of interest in sport and the causes of the lack of participation of these students has been an exercise in their leisure time. And also with r salami et 1391 also complies, that factors related to the attitude of the family such as: economic situation, physiological conditions, lack of access to appropriate space have very effective. Also, in researching Ehsani (2000) factors such as lack of interest in sports, cultural and social problems in more girls than boys are observed.

REFERENCES

- 1.Ehsani, M. Azab daftaran, M. (1382) "Evaluation of inhibitory factors involved in the exercise female students of Islamic Azad University Khorasgan Branch" Olympic Quarterly, Vol. XI, No. 3 and 4 (row 24).
- 2.Bakhshi nia, T. (1383). "The role of physical education Zanjan Branch offices in the way of spending spare time girl" MA thesis, Tehran University.
- 3.Salami, F. Norouzian M. Myrftah, F. (1391). "The barriers to women's participation in sports activities" Research Project, Institute of Physical Education, Ministry of Science, Research and Technology.
- 4.Kshkr, S. (1386) Analysis of the factors hindering women's participation in sport and recreation in Tehran, thesis, University of Tarbiat Modarres.
5. Ehsani M. (2002). "Level of participation of women in Iran and leisure constraints". L.S.A. conference . Leisure : Our common wealth? July, Perston,Manchester, England. [Article in Farsi].





The Study of the Job Innovative and Creativity of the Physical Education Teachers Are Participated in Specialized Scientific Competitions of the Country

¹Sara Nasiri*, ²Neda Boudaghi

1. M.A of exercise physiology, Education center of Ghaemshahr
2. M.A of physical education, Education center of Ghaemshahr

INTRODUCTION

Among the organizations that have an important and significant role in human life, are educational organizations, and especially education centers. Need for creative and innovative people in teaching and other educational centers, is crucial Because these centers play an important role in terms of education committed and professional manpower for all departments and agencies are responsible for(1). Individual innovation of staff in the workplace, is the main base of improving the performance of any organization (2).One of the success factors of teachers is that using innovation and creativity for students’ education (3). PE teachers in education and training on the one hand is facing with a large number of male and female students with different physical and mental needs and the proper use and direction of their talents and abilities and also with the rapid changes and developments in the field of sports sciences. Coordination with these changes will be required the creation of new ideas and create an environment based on the creativity. Therefore, according to the rapid developments in science and the inevitable need to adapt to the advancement and changes of sciences, this study is that to evaluate the degree of innovation in the PE teachers of the country, and also recognize the relationship between this variable and other demographic characteristics.

Corresponding Author:

Sara Nasiri

Email: sara.nasiri64@gmail.com

METHOD

This study was a descriptive survey and practical. The research population consisted of the 250 physical education teachers who are participated in 26th specialized scientific competitions of the country. According to Morgan table 148 subjects were selected as a sample, after distributing the questionnaire among teachers, 105 questionnaires were returned. Data collection included demographic, innovative and creativity questionnaire of Martin Patchen. Statistical analysis consists of the descriptive statistics (frequency, percentage, mean and standard deviation), inferential statistics (Pearson's correlation coefficient) and Ver.19 IBM of SPSS software at $p < 0.05$ was used.

RESULTS

The results showed that the innovation average score of PE teacher of 31 is 19.71 points which represent the acceptable innovation. The negative relationship was observed between job experience and innovation in PE teachers.

Variable	Innovation and creativity
Job experience	$r = -0.29$ Pearson correlation coefficient
	$P = 0.003$ p value

CONCLUSIONS

According to the findings of the research physical education teachers are acceptable Initiative. Also, there was significant negative relationship observed between job experience and the creativity and innovation of physical education teachers. It means that by increasing the rate of work experience, job-related innovation and creativity will be reduced. These results are consistent with the results of Alizadeh and et al research. Although our results are contrasted with the results of Ghafouri and et al (1387) research but it is a complement. His research details about the creativity revealed that the Creativity of Physical Education teachers with an average of 118/69 is moderate to low. While the majority of the population in his research were in the range of middle- age (52 per cent over 15 years of job experience)(1), but in this study, physical education teachers are acceptable Initiative and more than half of the sample were below 35 years of age and they had under 10 years of job experience. Lehman believes that the age of 29 to 39 years is golden decade (first order) to be creative (4). In this study about half of the teachers were in this age group. The reason for this association may be known, low experienced teachers more familiar with the new methods of training (education). Because many teachers have taken their

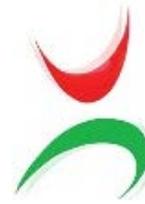


degree many years ago and over the years they have not done an attempt to improve their knowledge and formal degree. In addition, due to lack of study they do not have much information about knowledge and modern science.

REFERENCES

1. Ghafouri F. Ganjouei F. Dehghan A. Hosseini M. The relationship between Managers' leadership style and creativity of Physical Education Teachers. Fall 2009 , Volume - , Number 2; Page(s) 215 To 234[Article in Farsi].
2. Zarghami H.R. Jafari M. Akhavan P.The study of relationship between creativity and motivation for innovation in research organizations (CASE STUDY: RESEARCH CENTER OF INTELLIGENT SIGNAL PROCESSING (RCISP)). Spring 2012 , Volume 1 , Number 4; Page(s) 37 To 63[Article in Farsi].
3. Hoseinian S. Yazdi M. Nikjoo A. Relationship between personality and using motivation of job innovative and creativity in education managers. *Journal of Educational Psychology Studies*2005 , volume 2. Number 3;85-94[Article in Farsi].
4. Lehman ,Hc . (1960).the age decrement in outstanding scientific creativity. *American psychologists*, 15,128-134.





Privatization of Football Clubs in Iran: Challenges and Barriers

¹Hassan Gharekhani*, ¹Jabar Seifpanahi Shabani

1. Department of Physical Education and Sport Sciences, University of Zanjan, Zanjan, Iran.

INTRODUCTION

Over the last century football has constituted itself as the world’s game (1). Football has become an emerging international business with an institutionalized community of organizational actors that establish, maintain and transform the rules of the business across nations and boundaries (2). Despite a decade of privatization football clubs in developing countries, the vast majority of Iranian football clubs continue to be in government hands. No studies have analyzed football clubs privatization till now. An understanding of the football clubs privatization problems can assist the privatization process in football clubs and other sport clubs too.

Literature review has shown that football clubs privatization encounter with some challenges and barriers .Challenge refers to serious statue that we can’t ignore it , if manage it will be opportunity ,otherwise it can be threat . Barriers refers to factors, that located between desired future and existing situation, so we must surmount them for attaching our goals.

The purpose of this study was to identify and interpret the football clubs privatization challenges and barriers to answer this question, why has Iran been pussyfooting on privatization of football clubs?

* - Corresponding Author:

Hassan Gharekhani

E-mail: gharekhani@znu.ac.ir

METHOD

As there is currently no established theory regarding the football clubs privatization in Iran, this research was done on basis of exploratory –descriptive method. Research population and sample contain football clubs managers.

Data gathering performed with questionnaire. Validity of data gathering instrument confirm by sport management, economic, management and jurist experts. Reliability (0/96) measured in pilot study. Exploratory rather than confirmatory factor analysis was applied to summarize data.

RESULTS

According to research result we have found that structural challenges are the most important one, after that behavioral, Semantic and environmental respectively. The most important barrier of privatization football clubs is economical or financial, after that legal next structural and managerial at last. Lack of comprehensive privatization program, lack of suitable circumstance for privatization and lack of special and expert group for privatization football clubs recognized as Structural challenge. Behavioral challenges refers to performance of managers, such as transfer of football clubs to provinces , entrance of political managers and inattention to fiscal affairs ,equipment and facilities of clubs. Semantic challenges refers to misunderstanding of privatization concept, aims, vision and visibility of responsibility in football clubs privatization. Environmental challenges consist of huge capitalization of government in football club, direct financial helps by government and lack of controlling system. Economical hindrances consist of all barriers that led to negative financial balance in football clubs such as low income from sponsors, ticket, player transferring, and endorsement and so on.

Legal obstacles refer to lack of comprehensive privatization rules, weakness of tax rules, TV or broadcasting, publicity surrounding football match field and copy right rules. Structural hindrances refer to unsuitable structure of football clubs or football industry such as noncommercial structure, low brand, lack of private stadium, invisibility of financial statue of clubs, lack of foreign direct investment (FDI) and high risky position of football industry for capitalization. Managerial obstacles were lack of serious determination for football clubs privatization, plurality of decision making center and lack of sufficient coordination among them and resistance of some governmental manager

CONCLUSIONS

Research result has shown that structural challenges are the most important one, this finding is similar to Guidio and Philippe (2003) finding about Spanish football clubs , they found that Spanish football clubs structure isn't suitable and their development encounter with big challenge(3). Entrancing political and governmental manager in football clubs was one of important behavioral challenges, that is similar to Morrow (2004) finding, he conclude that clubs



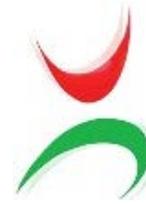
shouldn't manage by government (4). The most important barrier of privatization football clubs is economical or financial clarity of financial status and low earning from sponsor were football club problems, this result is like Michie and Oughton (2005) finding about England football clubs that, sponsors support clubs with more financial clarity strongly (5). Result has shown that legal barriers was the second important obstacle for privatization football clubs, this result is similar to Guidio and Philippe (2003) finding, their result showed that lack of special law about TV or broadcasting right, sponsors, economic and financial management were the most important reasons for inefficiency in Spanish football clubs.

Noncommercial structure of football clubs was the most important structural barrier, this finding is similar to Barros (2006) finding about Portuguese football clubs, he concluded that, nonprofit structure of Portuguese football clubs is the most important obstacle of their economic development, also Morrow (2004) find that management and ownership of Scottish football club by one person is one of important barriers of football clubs development (4, 6).

REFERENCES

- 1- Sean Hamil, Mathew Helt (2003), *The State of Game, The Corporate Governance of Football Clubs*. Football Governance Research Center, University of London.
- 2- Holt, M, Michie, J, Oughton, C and Walters, G (2005) 'The State of the Game: The Corporate Governance of Professional Football Clubs 2005' Football Governance Research Centre Research Paper 2005, No 3, Birkbeck, University of London.
- 3- Guidio Ascari, Philippe Gagnepain (2003). *How Inefficient are Football Clubs? An Evaluation of The Spanish Arms Race*. Department of Economics. University of Madrid. January.
- 4- Morrow, S (2004), *The Financial Crisis in Scottish Football*, *Scottish Affairs*, 47, 48-57.
- 5- Michie, J and Oughton, C (2005) *The Corporate Governance of Professional Football Clubs in England*, *Corporate Governance: An International Journal*, 13:4:517-532
- 6- Barros .C.P (2006), *The Financial crisis in Portuguese Football*, *Journal of Sport Economics*, 7(1), 96-104.





Measuring and Modelling of Chaotic Management in Iranian Physical Education Organization

¹ Z.Mirzazadeh*, ² M.Khorsandi

1. Associated professor, Ferdowsi university of Mashhad, Mashhad, Iran
2. Master student of sport management, ImamReza University, Mashhad, Iran

INTRODUCTION

Analysis, assessment and management of chaotic model based on chaos theory model in national organization for youth and sports in the Islamic Republic of Iran has been the target of this research. The theory of complex systems, chaos, and to the administrators of this message through the management during the preset logic and scheduling precision bearing, has come to a head and domestic chaos and a constitutional system of forklift, constantly between different attractions are on the swing (dynamic balance) and sometimes a small change, causing the vast changes and root lift fitted in the system.

METHOD

This study was descriptive-functional and the statistical research community consisted of general managers and top ministry of sports and youth and the total comprised of the provincial organizations that the sampling all the poses were studied and 108 questionnaire were returned to the investigator. In order to collect data management turmoil questioner at the sports and youth

was used and its validity by ten sports management professors and experts was confirmed and its reliability through Cronbach alpha test (0/92) was calculated.

RESULTS

The exploratory factor analysis identified four factors empowering employees, managers' skills, according to its structure, due to the climate conference space in management system as agents of chaos, were identified. In chaotic management in youth sports organization in the strength of these indicators were prioritized as follows: 1- skills of managers (second priority factor analysis), 2-empowerment of employees (priority factor analysis), 3-atmosphere system conference space (fourth priority factor analysis), (4) organizational structure (third priority factor analysis). The influence of these factors on each other by the ministry of sports and youth regression tests were evaluated and the following results were obtained:

Show the direct effects of the variables in the mode

Affected Variables Effective variables	Empowering staff	Management skills	Structure	climate conference space in system
Empowering staff	-	-	-	-
Management skills	0/68	-	0/44	0/55
Structure	0/55	-	-	-
climate conference space in system	0/34	-	-	-

CONCLUSIONS

The results can be seen despite the importance of empowering staff and organization structure in factor analysis, in youth sports organizations, their power is lower. So, we can employ people with high levels of education and training for managers and promoted them as a source of expertise and skills outlined that under the continuing process of change and innovation in the organization and also design an appropriate structure to maintain and enhance organizational creativity is essential. Managers should adopt an additional dimension of culture, sport and youth organizations in chaotic Systems provide their organization for organization, creativity and innovation, continuous learning and a comprehensive, process-driven team activities, creative interaction with the environment, identifying critical points and Leverage.



REFERENCES

- 1- Avolio, B.J., Zhu, W., Bhatia, P. (2004), Transformational leadership and organizational commitment; mediation role of psychological empowerment and moderating role of structural distance. *Journal of organizational Behavior*, vol 25, 951-968.
- 2- Bahm, M., Hubler, A.W. Conserved quantities and adaptation to the edge of chaos, *Phy. Rev. E*, (1997).
- 3- Barry Blesser (2006). Limits of analysis and predictions to chaos theory. *Human system management*, 14(4): 1-16.
- 4- Box, G.E., & S. Bisgaard (2003): The Scientific Context of Quality Improvement and learning. *Quality progress*, June: 54-61.
- 5- Wheeler, D.J. *Understanding variation: The key to managing chaos*, 2nd Rev edition; SPC press, Knoxville, TN, (2006).





Comparing the Job Satisfaction of Teachers of Physical Education and Non-physical Education based on Herzberg's Theory

¹Mojtaba Hassannezhad*, ¹Mehran Nasiri

1. Department of Physical Education and Sport Science, Student Sports Management, Islamic Azad University, Central Tehran Branch, Iran.

INTRODUCTION

Due to understanding the feelings of human resources, including the factors that affect the survival of many organizations. So that human resources as the most important factor in the development of societies and organizations filed, is considered. (Hashemi, 1999). Ministry of Education as one of the nation's largest public organizations are no exception to this rule. given (Bear, 1992). The teachers' satisfaction and job tenure them and increase their effectiveness in achieving the objectives of this great institution, and it is important. "Job satisfaction" a collection of feelings and beliefs that people have about their current jobs (George, 1999). Herzberg's two-factor theory of motivation is one of the most important theories.

METHOD

The aim of the present study and applied research component of descriptive - analytic study was done on the field. Data collection questionnaire Dunnett (1996) to assess the motivational factors and health and personal characteristics were used as a measurement tool. The population of the Teachers of Physical Education (127) and Physical Education (1100 people) and junior secondary schools in selected cities of the province formed. A sample of 127 teachers of physical education,

Corresponding Author:
Mojtaba hassannezhad
E-mail: mojtabhassan@yahoo.com

physical education teachers and other 285 randomly selected according to Morgan. To analyze the data, independent t-test, analysis of variance (ANOVA.) and Pearson's correlation coefficient were used.

RESULTS

Results indicated that the motivational factors for physical education teachers and physical education based on gender, age, employment history, there is a significant difference. Also significant differences between gender-based health factors but there are health factors based on age and years of employment there is no significant difference. In the meantime the job satisfaction of physical education teachers, physical education and a non-significant difference. Health and physical education physical education teachers between motivational factors associated with job satisfaction there.

Table 1: Correlation relationship between motivation and job satisfaction, health and physical education physical education teachers

Significant	job satisfaction	Variables
0.01	0.855	Motivational
0.01	0.938	hygienic

Findings Table 1 shows the correlation between motivational factors and health and job satisfaction among teachers of physical education and non-physical education

Table (2): t test for comparison with the job satisfaction of Physical Education and non- Physical Education

Significant	statistic	Field	Variable
0.02	-2.2	Physical Education non- Physical Education	job satisfaction

As indicated in Table 2 indicate the job satisfaction of physical education teachers in physical education with an insignificant difference ($p=0.02$)

CONCLUSIONS

With the increase of motivation, job satisfaction, middle and high school physical education physical education teachers and other selected cities increases the leaves are considered weeds.



By increasing the health of school teachers' job motivation increases in selected cities. This finding contrasts with the second part of Herzberg's theory. Finally, to conclude, we can say that this study Herzberg's theory is generally not endorse the second part of the theory is different. Perhaps this is due to the difference in various regions and communities, the factors that cause different motivation and satisfaction. This is because the properties of cultural, economic, social and motivational factors will affect the community.

REFERENCES

1. Hashemi, Ali. (1378). Job satisfaction and its influencing factors in staff education, Master's thesis (unpublished), the Center for Public Management, Tehran.
2. Burke ER. Science of cycling. USA: Human Kinetics; 1986.
3. Beer and Beer. (1992). Burnout and stress depression and self – esteem of teacher psychological report volume:11
3. George, Jennifer and Jones, Gareth. (1999). Organizational behavior understanding any managing, network, Addison, Wesley.



Relationship between Basic Communication Skills and Roles on Organizational Commitment among Sport Managers in Isfahan

¹Hamid Moeinfard*, ²Rasool Nazari

1. Master of Physical Education and Sports Sciences

2. Assistant Professor, Isfahan(Khorasgan)Branch, Islamic Azad University, Isfahan, Iran

INTRODUCTION

What has been attracted the attention of the scholars is the importance and the role of the human forces as a development factor and they have emphasized on it and they regard it as the most important invest for every organization. The efficiency and the development of every organization also depend mostly on the correct utilizing of the human forces. The success and the efficiency of the human forces is depended on the efficient usage of the behavioral sciences and the recognition of those concepts influencing on the human force efficiency (1). Taking advantage from the capability to hold a correct relation is regarded as one of the basic social life. This relation is so important that some of the scholars regard it as the fundamental for human growth, personal damages and human progress in relation process. This relation implants the whole organization constituents and it is the reason for their coherence and the organizational unity (2). Relations are critical and dynamic process in an organization and an effective relation can be converted to one of the organization’s most important goal. Organization which does not take advantage from an effective relations between its personnel so it cannot acquire the needed capabilities in order to perform its own duties and it will result to the decrease of their motivation, as the relation itself can be a suitable place for transferring the information, knowledge and experiences(3). Manager takes the responsibility for providing a correct relation in organization, so they should be aware of the relational process quality and how to hold an effective relations (4). They should focus on those ways to improve their relation so personnel will grow with better understanding, less conflicts and paradoxes and through analyzing the impact of the attitudes and manners, managers can preserve those positive reflexes result in the organizational success. Another organizational variables leading to the desirable performance and productivity is the organizational commitment, which is defined as a dynamic interaction between one person and its surrounding place. It can also be defined simply as believing in

Corresponding Author:

Hamid Moeinfard

E-mail: Hamid_Moeinfard@yahoo.com

organizational values and goals, being faithful to organization, moral commitment, feeling the need to stay in organization. In past decades, the organizational commitment has dedicated an important place in the researches for the organizational manners to itself and it has attracted the attention of many management researchers which have been resulted in a plenty of studies which have been investigated the relations between organization commitment with prerequisites and it has investigated its consequences(5). As studies show, those organizations enjoying from employees with high level of organizational commitment usually feel higher performance level and less working absence and delay. Taking advantage from managers and employees who have internalized values and goals of organization who know these goals as their own aims, will make us sure that they are trying toward the achievement of the organization interests(6). Another reason for this attention and importance dedicated to this issue is that the organizational commitment enjoys from a powerful theoretical base, meaningful solidarity and expanded concentration. Commitment faces with organizational value among their employees, as it is regarded as a factor which leads to the decrease of the delay, absence, and inefficiency, so the liable employees will try hard to achieve the organizational goals and those who respect to the organizational values, most likely will be faithful to the organization.

METHOD

The research method is descriptive in strategically side, it is fundamental in goals, and it is scanning in operation. The data gathering has been based on the domain studies. The statistical community included the managers of the Youth and Sport Offices, Sport experts and the Sport board's bosses in Isfahan. The whole amount of the research community was 200 people. In order to determine the sample volume, we used the Karjsey-Morgan table and a sample including 127 persons have been randomly selected. For gathering data we used the demographic information questionnaire and also 3 standard questionnaire including: Bartonji questionnaire, occupational satisfaction and the organizational commitment questionnaire with the durability of 0.81, 0.89, and 0.85.

RESULTS

Table 1. the results of the one-sample t-test to check the level of communicational skills and organizational commitment

	Means differences	Meaningful level	df	t
Communicational skills	۶,۴۵	۰,۰۰۱	۱۲۶	۹,۹۳
Organizational Commitment	-۱۱,۰۷	۰,۰۰۱	۱۲۶	-۱۲,۲۶

First we investigated the normality of the data distribution from Kolmogorov-Smirnov test. We acquired a meaningful level that the data distribution for the whole research variables and their micro scales are normal. Based on the research findings, %48 of the experts and sport managers in the Youth and Sport office in Isfahan were in 28 to 48 year old, 55 percent was for men and the women formed 45 percent. 41 percent hold BS and MA and just 28 percent had the body training educations. Those with average of 9 years working and 3 years of management past records, formed the sample group.



Table 2. matrix of correlations between communication skills and organizational commitment

		Communicational skills	Organizational Commitment
Communicational skills	Pierson solidarity	-	*,37\
	Meaningful level	-	*,00\
Organizational Commitment	Pierson solidarity	*,37\	-
	Meaningful level	*,00\	-

CONCLUSIONS

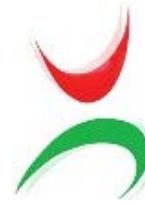
The importance root of the occupational satisfaction and the organizational commitment is in the fact that people spend half of their awake ness in their working place so that their job satisfaction and their commitment to organization hold high importance for personnel and for organization too. This investigation has performed aiming to analyze the communicational skills role in job satisfaction and also organizational commitment. Based on the research results, it is obvious that there exists a positive relation between the working and management records and the organizational commitment but this is not seen between the job satisfaction and the relational skills and age, working records and management experiences. The researches have been performed by Sedaghatifar and Khalaj Asadi talks about their observation of a positive relation between job commitment amount and the working years and they are not compatible with research results. As Metz and his coworkers show, not existing a meaningful relation between the organizational commitment and age, so the results show consistency. But Yusel and Baktash talk about the adjusting influence of age over the job satisfaction and the organizational commitment. Regarding the relation between job satisfaction and the working records, Gholampour and colleagues believe that a meaningful relation does not exist between working records and job satisfaction but they have consistency with research results, but Sedaghati fard and KhalajAsadi show the positive and meaningful relation between job satisfaction and working records. As a whole, the higher age means the higher job records and it leads in the dependence sensation to the job and organization which results in their commitment enhancement. The level of relational skills among the sport managers and experts in Isfahan is higher than average and it stays in desirable level. Nazari et al. mention their meaningful relation between the status-quo means and the desirable situation in verbal, listening and feedback skills among the sport managers. Iksan and his colleagues mention to this fact that university students hold relational skills higher than average level. The highness of the relational skills among the sport managers and experts in Isfahan is a privilege. Several jobs in this offices needs using different relational skills because of personnel continuous need to having interaction with subordinates, customers, colleagues and the superior managers, so that the result for this will be observed in their empowerment and the enhancement of their communicational level. Based on the acquired results, sport managers and experts in Isfahan show a job satisfaction level higher that the average level. As Gholampour, et al. mention the job satisfaction is the result of people's satisfaction of their job conditions. And the difference between several organizations lies in their method of management, salary and privileges, interaction and the cooperation between co-workers in offices, promotion method. Sport managers and experts in Isfahan feel more satisfaction in their occupation because of their desirable feeling toward their job.



REFERENCES

1. From Adolescent Storm and Stress to Elder Aches and Pains. *Journal of Language and Social Psychology*, Vol. 2002 21, No. 2, pp. 101-126.
2. Larsen, S., Marnburg, E., & Ogaard, T. Working onboard - Job perception, organizational commitment and job satisfaction in the cruise sector. *Tourism Management*, Vol. 2012 33, pp. 592-597.
3. Nazari, Rasool. Effective communication skills and interpersonal communication on organizational effectiveness athletic directors and Model, 1390 thesis, Islamic Azad University of Tehran.
4. Nazari, Rasool, Ehsani, Mohammad, Ashraf Ganjavi, Farideh, Ghasemi, Hamid (2012), Effects of communication skills and interpersonal communications on organizational effectiveness of Iran's sports managers and providing a pattern, *Journal of sports management studies*, issue 16, pp. 157-174.
5. Meyer, J.P. & Allen, N.J. The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*. 1991, Vol. 63, pp: 1-18
6. Matz, A. K., Wells, J. B., Minor, K. I., & Angel, E. Predictors of Turnover Intention Among Staff in Juvenile Correctional Facilities: The Relevance of Job Satisfaction and Job Satisfaction and Organizational Commitment. *Youth Violence and Juvenile Justice* published online, 2012 'Vol 0, pp. 1-17.





Performance and Resistance to Change in the Relationship between Participation in Sports and Youth Agency Staff Kermanshah Province

**Nariman Rahmani ¹, Ali Maleki ², kobra Din ³, Abed Rahmani⁴,
Foroogh Mohammadi ⁵**

1. Kermanshah University, PhD candidate in sports management
2. Physical Education graduate student, University of Shahid Beheshti, Tehran, Iran.
3. Master of Education
4. Physical Education graduate student University of Shahid Beheshti, Tehran, Iran.
5. Master of Sports Management experts

INTRODUCTION

All organizations are faced in his career. In today's volatile and competitive world, organizations are able to fast track the progress of the problem, the lack of readiness of personnel and organizations are (1). Regardless of their level of resistance emergence is normal. not and cannot be applied, often resist change, status quo to maintain sovereignty takes place due to past traditions and practices (2) To save the situation and unknown risks, organizations can survive long lasting experience that coordinate with internal and external changes, Well deal with the unknown and constantly keep pace with the expectations of the technology and new management style formation (3). One of the effective ways of reducing the resistance to change in organizations using participatory management. Participatory management is involved in the process of exploring the sites of the problem situation analysis Vdstyaby solutions so that employees have a lot of decision making power to obtain solutions consult with their supervisors are Vrvsay Increase employee participation in organizational change programs to facilitate the provision and coordination with the environmental changes 4. In this study, the researcher sought

is whether the participation in running youth sports organizations with employee resistance to change is a significant relationship exists Kermanshah.

METHOD

This study is a descriptive correlational study population consisted of all staff and youth sports organizations Kermanshah province is 243 persons. Sample sizes also acceptable according to the minimum number of samples from Morgan and random-cluster sampling method, 160 questionnaires distributed, 143 questionnaires were received and analyzed. To investigate the relationship between participative management and employee resistance to change in Kermanshah Province Office of Youth and Sport of the questionnaire Farahani (1389) is used. Reliability participatory management (75%) and for resistance to change (86%) can be. Data using the Pearson correlation coefficient was significant at the level ($p \leq 0 / 05$) were analyzed.

RESULTS

According to the Pearson test results in Table 1, from the perspective of Kermanshah between participation in youth sports office employees run with their resistance to change, there is a significant negative correlation ($p \leq 0 / 05$).

Table 1: Pearson correlation coefficient between the variables involved in the implementation and resistance to change

Variable	Participation in the implementation	
	Significant level	correlation coefficient
Resistance	0/005	-0/67

The means of the Pearson correlation test and the number 0/05 to 0/005 is less Therefore, in accordance with the principle of correlation between performance and resistance to change in employee participation in sport and youth organizations there Kermanshah province. This negative relationship is reversed. The increase in employee participation in the implementation of the Youth and Sports Office of Kermanshah reduce resistance to change them.

CONCLUSIONS

In general, the results of this study will Asefi (1388), parsley, Farahani et al (1389) there consistent with much the same results were found in this regard. Involve and engage staff in the implementation of programs and projects to prevent resistance to change is necessary. Because of its enforcement program or facility deficiencies in practice have been met and if managers

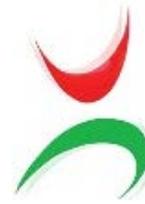


looking to improve performance of new thinking, new tools, and resistance of the personnel (the executor) and see, Involve and engage staff in the implementation of programs and projects to prevent resistance to change is necessary. If it can be said that provide context for participative management, are likely to extend a friendly atmosphere and emotional satisfaction and staff satisfaction are the goals of the individual and organizational and self-control and self-evaluation and innovation, and prosperity, talents cause. Successful managers are trying to establish human relations and participation, and provide a safe environment for employees.

REFERENCES

- 1) Thompson – John. "Lead with vision". Thompson Press".2011. P: 11.
- 2) Lawrence Green "Harnessing Resistance: using theory of constraints to assist change, 2010.
- 3) Francis S. Patrick, "Using Resistance to Change and TOC Thinking Processes", Focused Performance. 2010.
- 4) Manuela Pardo del Val, Clara Martinez Fuentes, (2009) "Resistance to change", Management Decision, 2009. pp.148-155.





The Relationship between Abuses of Coaches with Perceived Effectiveness of the Alborz Province Elite Wrestlers Greco

¹Mansoor Afshar*, ¹Abas Khodayari, ²Ali Zarei

1. Department of Physical Education and Sport Sciences, Karaj Branch, Islamic Azad University, Karaj, Iran.
2. Department of Physical Education and Sport Sciences, Central Tehran Branch, Islamic Azad University, Tehran, Iran.

INTRODUCTION

Competition among countries to increasing the number of medals is intensified in international competitions. Consequently countries are trying to more investing in both parts of male and female to have higher position in international arenas. Such a viewpoint, adding these advantages that has for countries, sport teams and athletes, also it has complications for athletes. Nowadays athletes to attempting for dominant positions in sport, they are tolerating terrible mental and physiological problems, as the difference of abuse and practice is not clear (1). Previous researches were shown that “accepted” methods of coaching in competing sports is one of the important research range that leads to more and more arguments(2). As yet some cases of accession of abuse was studied in sport, but the gap of applied researches for codification of moral rules and regulations completely. Moreover researches in the field of effectiveness of coaching, discuss the subject from coach’s point of view, while realizing of athlete from effectiveness of coaching could indicate adequate index about accessing the coaches(3). Nevertheless some studies that surveyed against athletes in the field of abuse in various countries, the mentioned issue is defined nonstandard socially and in Iran, and only one research developed by Bolourizadeh (1392) in basketball field(4). Therefore aim of this research was relationship

between coaches' abuse with perceived effectiveness of the Alborz province elite Wrestlers Greco.

METHOD

The population of this study is constituted of all elite athletes of Greco wrestling of Alborz province. Equal to existence statistics from wrestling association of Alborz province they are 140 totally. To gathering data the questionnaire is used: 1. Personal information questionnaire. 2. Questionnaire of abuse consideration of coach, Bolourizadeh (1392). 3. Questionnaire of athlete's perceptions from effectiveness of coaching with use of adoption version of effectiveness coaching scale (Feltz et al., 1999; CES). Questionnaire of abuse consideration, Bolourizadeh (1392), this scale has 4 subsets, emotional abuse, physical abuse, sexual abuse, and carelessness that has 39 questions with lycret in 5 costly scale. The questionnaire of perceptions of athletes from effectiveness coaching with use of adoption version of effectiveness coaching was measured (Feltz et al., 1999; CES). Descriptive statistics were used to summarizing and categorizing unrefined data and calculating mean, redundancy, deviation and drawing graphs and tables. To consideration of stability of scales we used cronbach test. To how data distribution, Kolmogorov –Smirnov test was used. The regression step by step test was used to perception of the relation of abuse of coached and perceived effectiveness of coaching known as criterion variable. To determining relation of variables, the Pearson correlation coefficient statistical method was used.

RESULTS

Results showed that, there is a negative relationship between emotional abuse, physical abuse, sexual abuse, carelessness of coaches and effectiveness of coaching; it means when one variable is increased, other variable is reduced. In other words, when emotional abuse, physical abuse, sexual abuse, or carelessness of coaches is rising, effectiveness coaching is decreasing.

Table1. According to above table findings, when emotional abuse, physical abuse, sexual abuse and carelessness of coaches increased effectiveness coaching decrease.

Variables	Pearson Correlation	N	Sig	Results
Emotional abuse & effectiveness of coaching	-0.429	140	0.000	P</.1
physical abuse & effectiveness of coaching	-0.427	140	0.000	P</.1
sexual abuse & effectiveness of coaching	-0.368	140	0.000	P</.1
carelessness & effectiveness of coaching	-0.395	140	0.000	P</.1



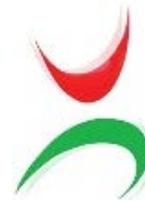
CONCLUSIONS

Findings of research indicated that coaches' abuses consist of emotional abuse, physical abuse, sexual abuse and carelessness of coaches has a significant negative correlation with effectiveness of coaching.

REFERENCES

1. Tofler, I., & DiGeronimo, T. F. (2000). Keeping your kids out front without kicking them from behind: How to nurture high-achieving athletes, scholars, and performing artists. San Francisco, California: Jossey-Bass.
2. Gervis M, Dunn N. (2004) The emotional abuse of elite child athletes by their coaches. *Child Abus Rev.*;13:215–223.
3. Sterling, A. and Kerr, G. (2012). The perceived effects of elite athletes' experiences of emotional abuse in the coach–athlete relationship. *International Journal of sport and Exercise Psychology*.
4. Bolorizadeh, P.(2013). To examine the conceptual model of causal relationship between coaches' abuse with athlete-coach relation and perceived effectiveness of the athletes from sports coaching. PH.D. Sport Management dissertation. Islamic Azad University Central Tehran Branch.
5. Farneti C, Turner B(2013). Student-Athletes' Perceptions of Leadership Styles of Division III Basketball Coaches. [Journal for the Study of Sports & Athletes in Education](#), 7(3): 210-228.
6. Marks, S., Mountjoy, M. and Marcus, M. (2011). Sexual harassment and abuse in sport: the role of the team doctor, *Br J Sports Med* 2012;46:905-908.





The Relationship between Motivation and Citizen Participation in Public Sports and Recreation to Economic and Social Situation in the Metropolis Kermanshah

**Abed Rahmani ¹, Nader Pirkhah², Jalal Azizi ³, Nariman Rahmani⁴,
M. Jowkar ⁵**

1. Senior sports management, University of Shahid Beheshti
2. Senior sports management , University of Shahid Beheshti
3. Assistant General Administration of Sport of Kermanshah
4. Kermanshah University, Sport Management PhD
5. PhD of Sports Management University of Guilan

INTRODUCTION

While the present day technological advances have brought prosperity for the human, but with reduced mobility and physical activities, new ways of life imposed on And reduce the harmful effects of poverty mobility, predispose many physical and psychological problems and disorders is described. The role of public sports and recreation sports and physical activity, particularly as a strategy that can potentially assist in the goals of health, social and economic, Very important is the fact that sport is a critical factor in the health of communities ts further development is felt necessary, the authorities and bodies responsible for sport shall be considered as additional cost, Rather, it is an investment in health, Public and social benefits for the country that provides financial resources to Know (3). Sport and costly because of the need to tackle the majority of people it is easy to implement individual one of the factors that increase the sustainability of the society to participate in public sports and recreation is the motivation of the individuals.

Motivation is simply the direction and intensity of effort. And people with different motives like business vitality, pleasure and the prevention of disease and maintenance of health and vitality and skinny participate in sports activities (1). One way to accomplish this is to help people explore the factors affecting trends are towards this issue. Among the factors that motivate people to participate in sport the type that represents their attitude towards sport is influencing factors such as socioeconomic status and so on. The present study aimed to investigate the relationship between socioeconomic status and motivated public participation in sports and recreation as well as the motivation of participants in the sport and its relation to the preferences of different socioeconomic classes among the population of the metropolitan area was Kermanshah.

METHOD

Descriptive and correlational research method was applied in this field was done. The population of the city of Kermanshah that all citizens in the exercise of public parks and recreational tackle. Given the infinite population of 384 subjects was determined based on Morgan. Measuring Socioeconomic Status Questionnaire (of 1390), respectively. Measuring the motives of public participation in sports and outdoor recreation questionnaire Hong Yong Lin (2010) was used (2). Reliability using Cronbach alpha, respectively, 82% and 78% were approved. To describe the subjects of descriptive statistics and inferential statistics of the Kolmogorov-Smirnov test was used.

RESULTS

The changing socio - economic variables are positive and significant relationship between participation motivation.

CONCLUSIONS

The results showed that socioeconomic status motivated participation in public sports and recreation is a significant positive correlation with the results Kantrz et al. (2013) is consistent with (3). And the results of Prince et al (2112) is inconsistent (4) In addition to the results of the regression analysis in this study showed That the economic class, income and parents' educational level predictors for stronger motivation to participate in sport and recreation are the universal due to importance and impact of public health development of the sport in the country is one of the key factors affecting health due to importance of sport and exercise among the country's policies, officials and managers of sports organizations is proposed to be associated with sport attempt to identify the motivations and attitudes to sport and recreation in public areas and different socio-economic classes around the country to understand the motivations and

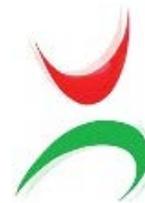


attitudes of people in different areas of the sport, and the equipment to suit their needs in the development of sport stadium and facilities act.

REFERENCES

1. Drenowats, Clements. Eisenmann, Joey. Pfeiffer, Karin. Welk, Greg. Heelan, Kate: Gentile, Douglas. Walth, David. "Influence of socio –economic status on habitual physical activity and sedentary behavior in to 11 years old children". *Journal of BMC public health*.(2010). 10, PP: 1-11.
2. Hung-Yung, Lin. "The Study of Exercise Participation Motivation and the Relationship among Service Quality, Customer Satisfaction, and Customer Loyalty at Selected Fitness Health Clubs in Taipei City, Taiwan". A dissertation submitted to the faculty of the United States Sports Academy in partial fulfillment of the requirements for the degree of Doctor of Education in Sports Management. United States Sports Academy(2010).
3. Kanters, Michael A., Jason N, Bocarro., Michael B, Edwards., Jonathan M, Casper., & Myron F, Floyd. "School Sport Participation Under Two School Sport Policies: Comparisons by Race/Ethnicity, Gender, and Socioeconomic Status". *Ann, Behave, med*, (2013). Vol.45, PP:113-121.
4. Prins, Richard G., Sigrid M, Mohnen., Frank J, van Lenthe., Johannes, Brug., &Anke, Oenema. "Are neighbourhood social capital and availability of sports facilities related to sports participation among Dutch adolescents?". *International Journal of Behavioral Nutrition and Physical Activity*, (2012). Vol.9(90), PP:2-11. <http://www.ijbnpa.org/content/9/1/90>





The Comparison Component Organizational Justice and Quality of Work Life Physical Education College in Azad and Public Universities of Tehran

¹Mohammad Amin Farrokhnia*, ²Abbas Khodayari

1. Department of Physical Education and Sport Sciences, Islamic Azad University, Iran
2. Department of Physical Education and Sport Sciences, Karaj branch, Islamic Azad University, Iran

INTRODUCTION

Justice in the workplace for employees and management are critical issues. Managers are responsible for establishing and create fair treatment of employees. This behavior could be in the form of compensation, promotion, delegation of authority, evaluation of individual behavior and other elements that are based on the employee's experience, is opportunities for growth and continuous security, the development of human capabilities, legalism in the organization of work, overall living space, safe and healthy working environment and the quality of working life is complaining. On the other hand, the psychological needs of employees in the use of technology, quality of working life will be fulfilled. To actually improve the quality of working life among university staff in their mind and motivation to reinforce progress. On the other hand, the psychological needs of employees in the use of technology, quality of working life will be fulfilled. To actually improve the quality of working life among university staff in their mind and motivation to reinforce progress. The aim of this study was to compare the components of

organizational justice and the quality of working life in the physical education staff at colleges and universities across the Azad universities of Tehran.

METHOD

This research was a descriptive correlational field study was undertaken. The population included all of the Physical Education Colleges and universities across Tehran in 1392, which had 163 participants from which 110 of them were randomly selected according to Morgan and Kergsi table. In this research, the demographic questionnaire, the questionnaire organizational justice (Nyhvf and Moorman) and Quality of Work Life (Walton), the coefficient of reliability by Cronbach alpha, respectively (935/0%), and (881/0%) has been determined, the data is used. Data analysis using SPSS 21 software by t-test and Pearson's correlation and regression analysis were used.

RESULTS

According to the findings, r observed at $p < 0/05$ between organizational justice component and a component of quality of working life, except (safe working conditions) at the Faculty of Physical Education staff and the National University of Tehran, significant differences exist there. The overall results indicate the average amount of each variable in each college.

Table 1: Results of the Pearson test of the relationship between organizational justice and quality of life of its components work in Open Universities

Organizational Justice	Interactional justice	Procedural justice	Distributive justice	Organizational Justice / Quality of working life	
				R	Sig
0.377**	0.305**	0.287**	0.467**	R	Adequate wages
0.005	0/023	0.034	0.000	Sig	
0.260	0.187	0.249	0.295**	R	Working conditions
0.055	0.173	0.066	0.029	Sig	
0.569**	0.531**	0.518**	0.552**	R	Opportunity to use
0.000	0.000	0.000	0.000	Sig	
0.704**	0.628**	0.671**	0.564**	R	Security and opportunities for growth
0.000	0.000	0.000	0.000	Sig	
0.477**	0.405**	0.330**	0.484**	R	Social cohesion
0.001	0.002	0.014	0.00	Sig	
0.132	0.215**	0.250	0.384**	R	Individual rights
0.338	0.039	0.066	0.020	Sig	



0.604**	0.549**	0.564**	0.479**	R	And the space
0.000	0.000	0.000	0.000	Sig	
0.492**	0.440**	0.433**	0.442**	r	Social Artat
0.000	0.001	0.001	0.001	sig	
0.630**	0.549**	0.599**	0.589**	r	Quality of working life
0.000	0.000	0.000	0.00	sig	

** Level ($p \leq 0.05$) is significant.

Table 2: t-test for the difference between organizational justice and its components on universities

P	df	t	M±SD	University	Levine test		index variable
					P	F	
0.005*	108	2.851	0.760 ±3.30	National	0.834	0.039	Organizational Justice
			0.717 ±2.90	azad			
0.002*	108	3.240	0.799 ±3.31	National	0.697	0.159	Distributive justice
			0.728 ±2.84	azad			
0.037*	108	2.113	0.880 ±3.36	National	0.833	0.045	Procedural justice
			0.879 ±3.00	azad			
0.014*	108	2.510	0.848 ±3.26	National	0.977	0.001	Interactional justice
			0.726 ±2.87	azad			

* Level ($p \leq 0.05$) is significant.

CONCLUSIONS

Given the overall results obtained in most cases represent a significant and inverse relationship between the components of the research. The need for further investigation into the living conditions and quality of work life for employees following components are. These components provide the organization with respect to the components of equity among employees can be more efficiency organizations.

REFERENCES

- 1- Flippo.Edvin B.(1984).personnel management.sivth edition Mc Graw-Hill International editions.Professional Psychology.13 293-301
- 2- Freadenberger J.J. (1975).The staff burnout syndrome in alternative institutions.Psychiatry,Theory,Researchn practice.Vol 12.No.1.
- 3- Konovsky M.A.&Gropanzano R.(1991).the perceived fairness of employee druy testing asa predictor of employee attitudes and jop performance.Journal of Applhed psychology 76 – 698-707
- 4- Maslach G ,Jackson . SE ‘The measurement of experienced burnout.Journal of organization Behavior 1981 ,2(2) : 99-113.



- 5- Moorman R .H.(1991).relationship between organizational justice and organizational citizenship behaviors : do f
Moorman R .H.(1991).relationship between organizational justice and organizational citizenship behaviors : do
fairness perceptions in fluenece employee citizen ship?Journal of applied psychology 76 – 845-855.
- 6- Maslach C (2001).Jop BURNOUT. Annual Review of psychology.vol.52 p 397-420.
- 7- Nabatchi,Tina ., Bingham,LisaBlomgren ., H,david.(2007).organizational justice and workplace mediation:a six-
factor model : international journal of conflict management,18,148-174.
- 8- Niehoff,B.P.Moorman,R.H.(1993).Justice as a mediator of the relationship between methods of monitoring and
organizational citizenship Behavior , academy of management Journal , 36,PP 527-556.
- 9- Walton Richard(1973)quality of work what is it?Slon management reviet.airness perceptions in fluenece
employee citizen ship?Journal of applied psychology 76 – 845-855



Study of Ergonomics the Personnel Departments of Youth and Sports Semnan

¹Babak Azimi Sanavi*, ²Nastaran Salimi, ¹Reza Talaie

1. Department of Physical Education and Sport Sciences, Shomal University, Amol, Iran.
2. Department of Physical Education and Sport Sciences, Alborz Campus, Tehran University, Tehran, Iran.

INTRODUCTION

In the texts of Management, one of relatively new term in the developing and developed countries, the ergonomics and human factors engineering (1). Investigate the nature of the profession of physical education and sport from various perspectives indicate that the nature of this profession and working conditions, with many jobs are different (3). Ben Sierra(1995) to evaluate the effectiveness of workplace physical education and sports teachers and coaches, to conclude that the particular circumstances of the business creates a lot of stress(4). Research on workplace stress, the PEO is very limited.

METHODS

This study is a descriptive survey. The status of ergonomics, according to demographic characteristics (individual) were compared. The research including staff offices, sports and youth are in Semnan province (100). Information needed for the study was obtained by questionnaire. In a preliminary study of the reliability of the questionnaire was estimated using Cronbach alpha coefficient(0.92). Data analysis was performed using SPSS version 18. Statistical methods used, including One-sample t-test, Independent-sample t-test, and ANOVA, at the significant level of 0.05 and 0.01.

Corresponding Author:

Babak Azimi Sanavi

E-mail: Babak.Azimi777@gmail.com

RESULTS

All items related to ergonomic pressures, substantially in the following table.

Table 1: "Ergonomics pressures"

Number of questions	Items	experimental mean	amount t	degree of freedom	Significance level
1	through The growing of people	3.68	7.88	99	0.01
2	Excessive noise in the workplace	2.40	4.83-	98	0.01
3	Inadequate ventilation	2.60	3.71-	96	0.01
4	improper workshop space	3.02	0.19	98	-
5	Inadequate facilities	2.88	0.95-	97	-
6	Improper heat and cold	2.92	0.60-	95	-
7	lack of the principles of safety	2.78	1.97-	93	0.05
8	unfavorable light	2.50	4.79-	99	0.01
9	workplace pollution	2.46	5.12-	95	0.01
10	Lack of cleanliness working environment	2.63	3.43-	113	0.01
11	total Pressures ergonomics	2.75	2.91-	77	0.01

According to the values obtained from the employee perspective, the impact of ergonomics pressures lower than average will be accepted.

CONCLUSIONS

Considering the purpose of the survey, the results of the study indicate that, in relation to demographic characteristics, including: Sex, marital status, age and experience, no significant difference. And only in relation to employment status, it is observed that, official staff compared with other employees, their employment status, contractual, corporate and contract, they feel more pressure. Perhaps the reason for this is that official workers than job security, have not felt the pressure, and more ergonomic factors have been found. But other employees feel more pressure due to lack of job security and ergonomic factors such as pressure.

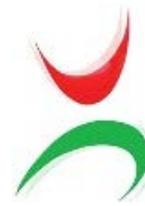
REFERENCES

1. Nourbakhsh, P. Develop and validate measures of job stressors and physical education teachers in Khuzestan province to determine the relationship between mental health, physical education and sport science Management Thesis, University of Teacher Education. 1378.
2. Mmqanyan, M. Engineering, human factors, ergonomics, Institute of Educational Studies and Planning, Industrial Development and Renovation Organization of Iran. 1370, Page 5.
- 3- Marc G.Singer, Human Resource Management, Pws-Kent, Co., Boston, 1990, P.364.



4. Ramazani race, R. Evaluate and compare the behavior of management support, maintenance of employment and occupational stressors teachers of physical education and sport in schools, sports management and planning thesis, Tehran University. 1380.
5. Banister EW, Hamilton CL. Variations in iron status with fatigue modelled from training in female distance runners. *European journal of applied physiology and occupational physiology*. 1985;54(1):16-23. Epub 1985/01/01.
6. Burke ER. *Science of cycling*. USA: Human Kinetics; 1986.
7. Hooper SL, Mackinnon LT, Howard A, Gordon RD, Bachmann AW. Markers for monitoring overtraining and recovery. *Med Sci Sports Exerc*. 1995;27(1):106-12. Epub 1995/01/01.
8. Clark M, Lucett S, Kirkendall DT, Medicine NAS. *NASM's Essentials of Sports Performance Training*: Wolters Kluwer/Lippincott Williams & Wilkins; 2010. 558 p.
9. Baechle TR, Earle RW, National Strength Conditioning Association. *Essentials of Strength and Conditioning*, Second Edition: Human Kinetics; 2000.





The Investigation of the Relationship between Time Management Skills and Productivity of Officials in Sport Stuffs in Quchan, Iran

¹Majid Arji*, ²Abbas Khodayari

1. PhD Student Sport Management, Physical Education and Sport Sciences Faculty, Islamic Azad University Research and Science Alborz Branch, Karaj, Iran.
2. Physical Education and Sport Sciences Faculty, Islamic Azad University of Karaj Branch, Karaj, Iran.

INTRODUCTION

Modern societies are the societies in which there are no enough hours during the day and new technologies have provided a place where we can access to the much information within the little time and do much work faster. Time is a unique source that if it would be wasted there is no substitute for that. Although work force and other sources have been distributed unequally, all the officials have the time equally and they can only use the time better than others. On the other hand, every nation's happiness and their prosperities depend on the effort and scramble of every class of the society and productivity is the criteria for evaluating the operation of these efforts in different parts of socio-economic (1). As we can observe that in many organizations lack of planning and irregularity of officials makes some of them not to have careful planning to perform their duties. Sudden orders from their superiors make them confused and decrease their efficiency and productivity (2). Research community is considered as the first effective platform that effects on the states' exercise. So keeping them informed about time management is very important

*- Corresponding Author:

Majid Arji

Arjimajid@gmail.com

because it allows them to be stronger in exercise planning, efficiency and effectiveness (3). With these qualities, time management skills programs and the relationship with productivity can be a good guide for those officials for sport staff. We hope that by presenting the results of this research and its application it would help organizations to be succeed and increase their productivity.

METHOD

The present study is applicable and due to the nature of the study it is cross-correlation. The population of the research is formed by 53 people of sports staff in Quchan. Because of the small size of the population, the selected sample was equal to the population to be significant and acceptable in aspect of statistical operations. For data collection, Time Management Skills Questionnaire (Queen, 1990) and employee productivity (Blanchard and Goldsmith, 1996) were used. To analyze the data, Asmyrnfbray Kolmogorov test of data normalization and Tai-Kendall test (especially the relationship between normal and abnormal variable) were used. Meanwhile, The α level for all tests was considered 0.05.

RESULTS

There is significant relationship between time management skills, work, location, daily communication, and officials' productivity in sport staffs (Table 1).

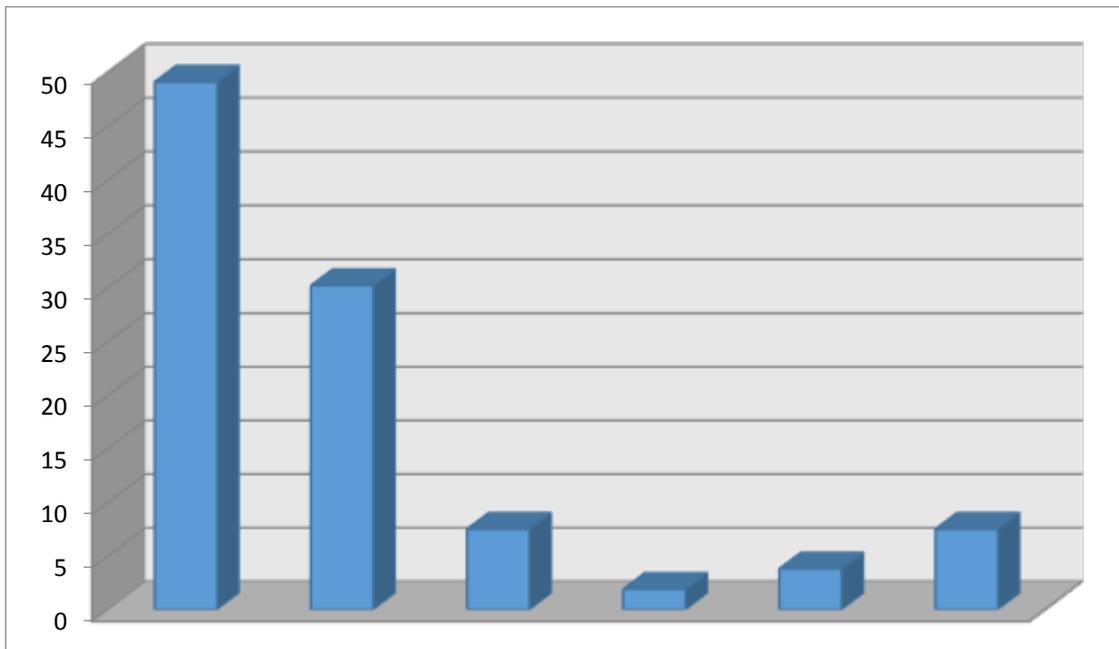


Diagram1- The frequency distribution of management experience

The above diagram distribution of the staff responsible for the management of sports city Quchan shows (Diagram1).



Table (1) -Kendall's coefficient of component skills, time management and productivity.

	number	correlation coefficient	Significance level	R2
Time management Efficiency	53	0.42	0.001	0.176
Business Management Efficiency	53	0.17	0.022	0.028
Place management Efficiency	53	0.19	0.002	0.036
Communication management Efficiency	53	0.187	0.018	0.032
Daily management Efficiency	53	0.169	0.028	0.028

CONCLUSIONS

Results show that there is a significant relationship between time management and productivity of the employees. This means that an increase in the use of time management, makes employee's productivity increased. These results are consistent with findings of Icon Yildirim (2008) and Adebisi (2012). Employees need to enhance their ability to manage time effectively to achieve sufficient balance in their work –life and having time management skill has a positive effect for people to have optimal use of the time and it is useful for enhancing organizational productivity. There is a significant relationship between work management and productivity. One of the key aspects of management is prioritizing the tasks and the key to be successful in time management is that the most important things to be considered before any work and the main focus would be on it. Another objective is to examine the relationship between productivity and place management that the results showed that there was a significant correlation between these two variables. One of the most important abusers of time is lack of personal discipline. Computing the Kendall correlation coefficient between communication and productivity management indicated that there was a significant relationship between these two variables. Meetings, allocate most of the time to the officials that presiding the meetings is a kind of art and requires time management. There is a significant relationship between daily management and productivity. Inability to focus makes the decision to become a very hard work for the people and deadlines that have been set for the work to be finished and this increases the stress on the individual and decreases efficiency (3). Therefore, an individual should have control over his/her time to be able to spend his/her time on tasks effectively and positively.



REFERENCES

1. Kazemi SA. Productivity analysis in organizations. First Edition. Publishing Samt, Tehran; 1381.
2. Moghimi SM. Organization and management reseach- approach. Fifth Edition. Publishing Termeh, Tehran; 1386.
3. Honari H. Investigate the relationship between motivation and productivity of manpower physical education organization of Islamic Republic of Iran. Move Publication Tehran University, 1382; (72): 45-54.
4. Adebisi JF. Time management practice and its effect on business performance and productivity. Canadian Social Science, 2012; (1): 165-168.
5. Yildirim D. Nurses work demands and work- family conflicts questionnaire survey. International Journals Nurse Student Spa, 2008; (9): 65-98.





Codifying a Strategic Plan for the Volleyball Academies in Iran for Sections, Talent Identification, Based on a Combined Model of SWOT and AHP

¹ Masoud Najafi* ² Ali Mohamad Safanya ³ Hamta Hadian

1. (M.A. sport management) Member of the Committee of talent Volleyball Federation, Director of Volleyball Association's Education Committee in The Ministry of Education
2. Associate Professor in physical Education and Sport Sciences Islamic Azad University, Science and Research Branch, Tehran
3. (PH.D student)

INTRODUCTION

The present study is codifying a strategic plan for the volleyball academies in Iran for sections of, talent identification, based on a combined model of SWOT and AHP

METHOD

Research methodology is of the strategic and survey type. The study is conducted in the form of a field survey through analytical-descriptive methods and is considered as an applied developmental study. A combination of methods have been used for data collection: needed data are obtained through library studies, surveys, strategic council meetings and research made questionnaires. Where the

Corresponding Author:

Masoud Najafi

E-mail: masoudnajafi24@gmail.com

sequential exploratory mixed methods study we benefit First, qualitative methods were used to collect data, and then a little way The statistical population studied in this research includes the board of directors and authorities of talent identification and education committees of the Federation, academy directors, physical education teachers, pundits and experts, expert authorities, professional journalists, educators, arbiters and heads of delegations from among whom 30 individuals with necessary characteristics were selected purposefully as the sample. Then, the questionnaire was further administered among 20 volleyball experts (through explanatory method). They were asked to identify the internal factors (strengths and weaknesses) and external factors (opportunities and threats) of volleyball academies based on the Delphi method and in order of importance by filling out the questionnaire. Finally, the questionnaire was consistent and reached theoretical saturation with 20 participants. A total of 26 indices in the form of 7 opportunities, 6 threats, 4 strengths and 9 weaknesses were identified. The validity of questionnaires was confirmed by 20 sports management experts and volleyball academy experts. The reliability of questionnaires was confirmed by the Cranach's alpha coefficient for Talent identification ($\alpha=0.957$);The SPSS software v18 was used for analyzing the data obtained from this study by descriptive parameters such as frequency, percentage, and tables. Then, the items and indices were designed in two separate questionnaires based on paired comparisons through the AHP method and were completed by 23 of the sample population. Of these, 20 questionnaires were selected as the main instances. In the inferential statistics section, we used the AHP method, the Expert Choice software, and the SWOT analysis in order to rank the strengths, weaknesses, opportunities, and threats.

RESULTS

Based on the results of the present study, two SO strategies, one ST strategies, three WO strategies one WT strategies, and an special strategy were used for talent identification that make up a total of 7 corresponding strategies.

CONCLUSIONS

From among these strategies at different levels, the development of a comprehensive plan for volleyball talent identification, the designing and, charting the path of cooperation with the Department of Physical Education and Health International Volleyball Federation Ministry of Education and Ministry of Youth and Sports the designing and.....section have exhibited the highest priority.



Prioritizing Opportunities Facing the Development of Sport in Physical Education Directors and Heads of Delegations from the Perspective of Kermanshah Province Public Sport

**Iraj Lotfi¹, Saeed Khodadad², Nariman Rahmani³, Abed Rahmani⁴,
kobra Din⁵**

1. Master of Sport Management
2. Master of Sports Management, University of Shahid Beheshti, Tehran
3. PhD in Sport Management, Kermanshah University
4. Master of Sports Management University of Shahid Beheshti, Tehran
5. Master of Education

INTRODUCTION

Machine of modern life and a reduction in physical activity, all sections of society, causing widespread problems of poverty is work. Now more than ever the necessity of regular physical activity to maintain physical and mental health of people feel (2). Basically, the development of sport in relation to increasing participation and promoting there opportunities and benefits of participation in sport activities. Participation in sports and physical activities in a wide range of concepts such as the presence of children playing, women's participation in sport, youth participation in sports that are regulated, and ultimately the development of sport, both professional and relevant to the hero (3). Since sport there a critical factor in the health of those communities that felt the need to further develop, Governmental authorities and bodies responsible for sport shall be considered as an additional cost, but also the social benefits of investment in health, Public and economic resources to provide the know (1). Given that extensive research has been done in the field of sport weaknesses would seem necessary In a

study examining the problems facing the weaknesses of the sport to realize these issues are more appropriately dealt with them. The current study utilizes the scientific method seeks to develop a strategic plan to identify the most important opportunities for the development of sport engage in Kermanshah province. With the hope that its results could have a role in the development of the sport in the province.

METHOD

Descriptive research method in applied research objective is to establish itself. Total number of comments were made and all the officials of the board of directors of the departments of physical education and sport were collected. To measure the ability of the latter, the Cronbach alpha was performed using SPSS software. This value is based on data from questionnaires / 94. The descriptive statistics are given as frequency, mean, standard deviation, and percentages were presented in graphs and tables. Through data analysis, using hierarchical binary matrix comparisons were weighted and ranked. All calculations have been done through SPSS16 software and Excel 2010.

RESULTS

Willingness of authorities to develop sport (0.318) as the major opportunities facing the development of sport Kermanshah province were identified. After the bodies were covered sports many sport disciplines (0.202), there is good potential for ecotourism and climate ... (0.149), and eagerly welcomed families to the sport (0.128), there capacity of local indigenous games (0.103), use of local media, provincial and national (0.059) and there are new ideas and perspectives to the sport (0.037) are (table 1). Consistency index for Sport for Development Opportunities matrix is equal 0.009 and shows the priority of the two most reliable comparisons.

CONCLUSIONS

Alikhani (1381), Amir Tash (1384), Reza (1384), igneous Badri (1385), stenographer and Ghassemi (1386), Ghofranipour.F (1387), Khosravi, M. (1387), Nassir Zadeh (1387) and Saif Ali Panahi (1389) is aligned with the investigation. Considering the importance of sport and sports officials, especially Directorate General of Youth and Sports and committees of provinces and cities to plan your sport on enhancing opportunities acquire focus on sport development, It should be noted that the State Sport General Administration of Sport, Youth and missions on domestic opportunities are better able to respond and their applications to react on this opportunity to learn more on their own.



REFERENCES

1. Karabakh, MA. Status of sport and its comparison with selected countries of the world, PHD thesis in management and planning exercise, Tarbiat Moallem University, Tehran. (1383). [Article in Farsi]
2. Karabakh, Muhammad Ali and Shjy, MR. Examine the challenges and obstacles facing the sport in general, with emphasis on human resource management and the Seventh National Conference on Physical Education and Sport Sciences, University of Tabriz. (1385). [Article in Farsi]
3. Kalliopi, S., Shilbury D., Christine, G Sport Development Systems, Policies and Pathways: An Introduction to the Special Issue. *Sport Management Review*, (2008). Vol. 11, pp. 217-223.





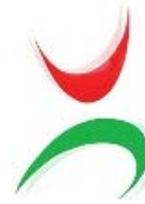
Exercise Physiology



Annals
of
Sport
Applied Science



Annals
of
Sport
Applied Science



The Effect of Eight Weeks of Endurance Training with Milk: The Insulin Levels in Overweight Boys

¹Fatemeh Moslehi, ²Abdullah Moslehi*

1. Master of Sciences in Sport Physiology
2. Master of Sciences in Sport Management

INTRODUCTION

Prevalence of overweight and obesity in childhood in developed and developing countries is rising. For these changes in eating habits and reduced physical activity are referred to as the most common reasons. The aim of this study was to evaluate the effects of 8 weeks of endurance training with milk on insulin in overweight boys.

METHOD

Quasi-experimental study with a pretest-posttest design was conducted on 28 male prepubertal overweight. The exercise protocol consisted of strength training for 8 weeks, 3 days a week, with 40% beginning and at the end of the 60% aerobic capacity was also a group of complementary milk (236 ml) received the blood before and after 8 weeks.

Corresponding Author:

Abdullah Moslehi

E-mail: [Moslehi320@gmail.com](mailto:moslehi320@gmail.com)

RESULTS

Insulin concentrations in the exercise group, exercise-supplement, and the control-supplemented decreased significantly. But in the control group this decrease was not significant.

Table 1: Statistical indices calculated to determine insulin

pValue	t table	tValue	df	Deviation Astadard	mean	Index	
						insulin	
0/001	2/44	5/80	6	1/23	9/55	Before	Group Practice
						After	
0/003	2/44	4/89	6	2/37	11/62	Before	Group exercise - Supplements
						After	
0/968	2/44	-0/049	6	2/50	11/52	Before	Controls
						After	
0/001	2/44	7/88	6	2/46	11/15	Before	Group Control Supplements
						After	

CONCLUSIONS

This study shows that 8 weeks of endurance training is associated with improved milk consumption decreased levels of insulin. It is suggested that obese and overweight people benefit from this therapy changes.

REFERENCES

1. Alexandre M Lehnen, Natalia M Leguisamo, Graziela H Pinto, Melissa M Markoski, Kátia De Angelis, Ubiratan F Machado, Beatriz Schaan (2010). The beneficial effects of exercise in rodents are preserved after detraining: a phenomenon unrelated to GLUT4 expression Cardiovascular Diabetology 2010, 9:67.
2. Augustin R (2012). The protein family of glucose transport facilitators: it's not only about glucose after all. IUBMB Life; 62:315–33.
3. Katan MB, Ludwig DS (2013). Extra calories cause weight gain but how much JAMA; 303: 65-6.
4. Oreopoulos A, McAlister FA, Kalantar-Zadeh K, Padwal R, Ezekowitz JA, Sharma AM (2009). The relationship between body mass index, treatment, and mortality in patients with established coronary artery disease: a report from APPROACH. Eur Heart J; 30: 2584-92.
5. Pirre St-Onch MP, Goree L (2009). High-Milk Supplementation with Healthy Diet Counseling Does not Affect weight loss but Ameliorates insulin Action Compared with low milk Supplementation in Overweight children. ASN.





Effects of Swiss Massage and Static Stretching on Jumping and Sprinting Ability

¹Abbas Asadi*, ²Hamid Arazi, ³Kako Hosseini

1. PhD Candidate, Department of Sport Physiology, University of Guilan, Rasht, Iran
2. PhD, Department of Sport Physiology, University of Guilan, Rasht, Iran
3. PhD Candidate, Department of Physical Education and Sport Sciences, Razi University, Kermanshah, Iran

INTRODUCTION

Warm-up prior to physical activity is a well-accepted practice believed to reduce the risk of injury and enhance performance (1). There were various types of pre-event warm-up programs for enhancing performance, such as; static-stretching, massage, dynamic stretching, PNF stretching and/or jogging. Static-stretching has been shown to significantly reduce leg strength, and high speed motor capacities such as power and vertical jump (2). Therefore, the purpose of the present study was to compare the effects of two different warm-up programs consist of Swiss massage and static-stretching on jumping and sprinting ability of male college athletes.

METHOD

Twenty male college athletes volunteered to participate in this study and were randomly divided into three groups; massage group, static-stretching group, and rest group. Vertical jump (VJ), 10, 20 and 30-m sprint tests were assessed before (pre) and after (post) each of the interventions.

Corresponding Author:

Abbas Asadi

E-mail: Abbas_asadi1175@yahoo.com

RESULTS

The results of the present study are presented in Table 1. There were significant worsening in VJ, 10, 20 and 30-m sprint time following static-stretching and Swiss massage ($P < 0.05$). There were no significant changes in the rest group for the all tests ($P > 0.05$). There were also no significant differences among groups at post test for all variables ($P > 0.05$).

Table 1. Pre-to-Post changes in jumping and sprinting ability following each intervention (mean±Sd)

	Swiss Massage		Static-stretching		Rest	
	Pre	Post	Pre	Post	Pre	Post
Vertical jump (cm)	39.48±1.6	38.02±1*	38.85±2.3	37.92±1.9*	39.62±2.6	39.55±2.1
10-m sprint (s)	2.02±0.46	2.08±0.34*	2.01±0.31	2.07±0.26*	2.01±0.13	2.04±0.22
20-m sprint (s)	2.63±0.29	2.68±0.22*	2.65±0.34	2.69±0.38*	2.66±0.33	2.67±0.39
30-m sprint (s)	4.68±0.39	4.77±0.42*	4.66±0.48	4.73±0.43*	4.67±0.33	4.69±0.47

*significant difference ($p < 0.05$) compared to pre value.

CONCLUSIONS

In summary, we conclude that static-stretching and Swiss massages are not effective methods for improving explosive event. According to the present results, static-stretching (20-sec) and long duration massage should not be recommended for warm-ups before jumping and sprinting events.

REFERENCES

- 1- Hunter AM. Watt JM. Watt V. Galloway SD. Effect of lower limb massage on electromyography and force production of the knee extensors. *British Journal of Sports Medicine*. 2006 40:114-118.
- 2- Wiktorsson-Moller M. Oberg B. Ekstrand J. Gillquist J. Effects of warming up, massage, and stretching on range of motion and muscle strength in the lower extremity. *American Journal of Sports Medicine*. 1983 11:249-252.





Comparing Effects of Selective Aerobics and Resistance Training on Profile Lipid in Overweight Untrained Women

¹Sania Sedaghatkish*, ²Farhad Rahmaninia, ³Zahra Hojjati

1. Science and Research Branch, Islamic Azad University, Rasht, Iran.
2. Department of Physical Education and Sport Sciences, University of Guilan, Rasht, Iran.
3. Islamic Azad University, Rasht, Iran.

INTRODUCTION

Cardiovascular disease is the most common cardiovascular diseases and considered as the main cause of mortality in the world. The purpose of this study was to compare effects of selective aerobic and resistance training on lipid profile, in overweight untrained women.

METHOD

36 overweight female volunteers, 23-30 years old, participated in this study. The subjects were randomly placed into one of three groups namely aerobics (13), resistance (13) and control (10). Body mass index, body fat percentage and lipid profile were measured at baseline and after exercise training. Training program lasted for eight weeks and it was carried out 3 times per week. Statistical tests of paired t-test and ANOVA were used for data analysis.

RESULTS

Corresponding Author:

Sania Sedaghatkish

E-mail: sania_skg@yahoo.com

Plasma TC, LDL, TG and HDL changed significantly selective aerobic and resistance training ($p \leq 0.05$); but, there were no significant differences in triglyceride (TG), total cholesterol (TC), high density lipoprotein (HDL), low density lipoprotein (LDL) and between selective aerobic and resistance groups.

Diagram1.Changes in the demographic characteristics, body fat percentage and WHR of subjects in intra group and inter group.
Diagram2.The amounts depends on the blood lipid profile before and after exercise(average \pm standard deviation)

average \pm standard deviation						Variable
Control Group		Aerobic Group		Resistance Group		
after training	before training	after training	before training	after training	before training	
86.14 \pm 189.40	88.56 \pm 187.80	47.76 \pm 181.85#*	65.38 \pm 194.08	43.90 \pm 173.08#*	44.33 \pm 175.62	TG (mg/dl)
37.27 \pm 189.70	37.73 \pm 189	36.04 \pm 196.31#*	37.09 \pm 200.15	32.07 \pm 185.54#*	32.83 \pm 188.92	TC (mg/dl)
26.93 \pm 158.20	26.93 \pm 158.30	29.69 \pm 139.69#*	30.4 \pm 142.77	27.57 \pm 138.69#*	27.67 \pm 140.54	LDL (mg/dl)
11.81 \pm 45.90	12.36 \pm 46.10	9.31 \pm 49.85#*	8.78 \pm 45.23	8.01 \pm 47.69#*	8.40 \pm 45.69	HDL (mg/dl)

average \pm standard deviation						Variable
Control Group		Aerobic Group		Resistance Group		
after training	before training	after training	before training	after training	before training	
-	2.05 \pm 24.70	-	1.83 \pm 24.62	-	1.83 \pm 23.77	Age(year)
-	7.99 \pm 156.20	-	4.25 \pm 154.15	-	5.46 \pm 154	Height(cm)
7.66 \pm 75.01	7.59 \pm 74.80	8.38 \pm 70.80#*	8.66 \pm 71.76	9.41 \pm 71.58#*	9.62 \pm 72.38	Weight(kg)
4.01 \pm 29.79	4 \pm 29.80	2.68 \pm 27.67#*	3.1 \pm 29.05	3.91 \pm 26.74#*	4.37 \pm 28.20	BMI Kg/m2)
4.13 \pm 30.90	4.11 \pm 30.75	3.22 \pm 28.79#*	3.56 \pm 30.16	3.74 \pm 28.08#*	4.24 \pm 29.39	Body Fat (percentage)

*Significant differences in each group before and after 8 weeks($P \leq 0.05$).

#Differences between experimental group and the control group($P \leq 0.05$).



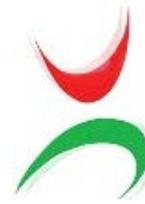
CONCLUSIONS

The result of the present study indicated that both selective aerobics and resistance training resulted in reduced lipid profile in overweight women. However, each type of training also provides unique benefits.

REFERENCES

1. Fridman J M. Obesity in the new millennium. *Nature*. 2000; 404:632-34
2. Jung RT. Obesity as a disease. *Br med Bull* 1997; 53: 307-21
3. Aerobic exercise is best fitness program for patients with stable heart failure: *Journal of the American College of Cardiology*. [Cited 2007 June 12]. Available from: [http:// www.scienceDaily.com](http://www.scienceDaily.com)
4. Michael ML, Garner JC, Plaisance EP, Taylor JK, Alhassan S, Grandjean PW. Blood lipid response after continuous and accumulated aerobic exercise. *Inter J Sport Natri Exerci Metab*. 2006; 16(3): 245-54.
5. Durstine JL, Haskell WL. Effects of exercise training on plasma lipids and lipoproteins. *Exer Sport Sci Rev*. 1994; 22: 477-521.





The Relationship between Breakfast Consumption and Body Composition in Students

¹Fazel Bazyar*, ²Ramin Shabani, ³Vahid Aghajani, ⁴Tina Ghaffari,
⁵Ramin Aghajani

1-Department of Physical Education and Sport Sciences, Rasht Branch, Islamic Azad University, Rashat, Iran.

2-Department of Physical Education and Sport Sciences, Rasht Branch, Islamic Azad University, Rashat, Iran.

3-Department of Physical Education and Sport Sciences, Rasht Branch, Islamic Azad University, Rashat, Iran.

4-Department of Physical Education and Sport Sciences, Rasht Branch, Islamic Azad University, Rashat, Iran.

5-Department of Physical Education and Sport Sciences, Rasht Branch, Islamic Azad University, Rashat, Iran.

INTRODUCTION

Nutrition has an indispensable role in the daily lives of individuals. Food that is chosen wisely can contain all the nutrients necessary for normal human actions. One of the good habits that will positively influence the nutrition balance, physical growth, school performance and learning is eating breakfast. Breakfast consumption has a beneficial effect in enhancing the quality of child nutrition and maintaining their *blood glucose levels*. The purpose of this study was to evaluate the

Corresponding Author:

Faze lbazyar

E-mail: fazelbazyar@yahoo.com

relationship between repetitions in breakfast consumption on weekdays with body composition in children with intellectual disability.

METHOD

In this study, 91 students with intellectual disability, (with The mean age $13 \pm 1/7$ years old, mean height $166/5 \pm 7/1$ cm, mean weight $61/4 \pm 15/4$ and mean IQ $61/5 \pm 7/1$) were chosen from schools in the city of Roodbar. First, based on their medical records information such as (IQ, age and health problems) collected, then for data gathering (Height, weight) and body composition was calculated by using weight formula (kg) divided by the square of their height (m). The repetition of breakfast consumption was evaluated by a questionnaire. The questions were adapted from questionnaires by Mohammadi et al. questions like “How many days a week do you eat breakfast at home?”. The answer was a number from 0 to 7. Since breakfast consumption is considered as a habit in this study, so the response of the participants categorized as; always have breakfast (5-7days a week), sometimes (1-4 days a week) or never (0). To describe the data, descriptive statistics (mean and standard deviation), and for finding the relationship among variables, Spearman's rank correlation coefficient was used. All statistical operations was done by SPSS software version 20 and a significance level of ($p < 0/05$) Was considered.

RESULTS

The results of the study showed that 28/55 % of studied students who didn't have breakfast, 36/26 % some times and 35/16 % of them always had breakfast. The results of this study showed that people who sometimes eat breakfast, are more obese , have more body composition than those who regularly eat breakfast and are thinner and have less body composition than those who do not eat breakfast at all.($p \leq 0/05$)

CONCLUSIONS

Thus, according to the results of this study it can be said that; there is a significant relationship between body composition of children with intellectual disability, and the repetition of breakfast consumption.

REFERENCES

- 1- Ahmadi B , Rahimi A , Keshavarz A , Angourani P . Sadrzadeh H, The effect two method of Nutrition education at breakfast on the performance of student in forth grade girls in 6 tehran .



- Research and Scientific journal of school of public health and institute of public health research. (2006)1: 65-72 [Persian].
- 2- Baghdadchi J , Amani R. Assessment of the effects of breakfast on concentration span short-term memory of school children. Research and Scientific journal of university of medical Sciences iran. (2001). 2: 535-540 [Persian].
 - 3- C S Berkey, H R H Rockett, M W Gillman , A E Field and G A Colditz: Longitudinal study of skipping breakfast and weight change in adolescents. (2003).
 - 4- [Dubois L](#), [Girard M](#), [Potvin Kent M](#), [Farmer A](#), [Tatone-Tokuda F](#). Breakfast skipping is associated with differences in meal patterns, macronutrient intakes and overweight among pre-school children.(2009).
 - 5- Godarzi M .Nutrition for athletes .(2007). p 268-256 [Persian] .
 - 6- Henriquez Sanchez P, Doreste Alonso J, Lainez Sevillano P, EstevezGonzalez MD, Iglesias Valle M, Lopez Martin G et al.Relationship with breakfast and physical activity (2008).
 - 7- Keshavarz A , Nutrition and diet athletes. (2006) .p 264 [Persian].
 - 8- Melvin H , William S .translated by Alijanian R .Nutrition for health , fitness , sport. (2007). p 535- 657 [Persian].
 - 9- Mohamadi, Asl, liyla, The relationship of breakfast consumption , body composition and cardiorespiratory fitness in elementary school students. Thesis, University of Guilan. 1389.
 - 10- [Maureen T. Timlin](#), PhD, [Mark A. Pereira](#), PhD, [Mary Story](#), PhD, [Dianne Neumark-Sztainer](#), PhD Breakfast Eating and Weight Change in a 5-Year Prospective Analysis of Adolescents: Project EAT (Eating Among Teens). (2007).
 - 11- Shaw ME. Adolescent breakfast skipping: an Australian study. Adolescence. (1998).33, 851-61.





The Effect of Sauna and Wrestling on Blood Sodium, Potassium and Urea in Elite Wrestlers

¹Mahraz Moradi, ²Saeid Shakerian *, ²Mehdi Zarghami,
³Hamid Aghili nasab

1. Department of Physical Education and Sport Sciences, Shoushtar Branch, Islamic Azad University, Shoushtar Iran.
- 2.3 Department of Physical Education and Sport Sciences, Shahid chamran University, Ahvaz, Iran.,
4. Department of Physical Education and Sport Sciences, Shahid chamran University, Ahvaz, Iran.

INTRODUCTION

Weight loss and reaching an ideal weight are the concern of coaches. In athletic acute weight loss through reduction of strength and endurance , power and capacity of aerobics and anaerobic, increase protein metabolism and dangerous like thermal disease same as muscle cramp , thermal exhausting or heatstroke , muscle and likely liver glycogen depletion , heart rate increasing, plasma and blood volume reduction can became harmful for health and sport performance.

So the aim of this study survey the effect of one wrestling session on rate of blood sodium, potassium and urea in Khuzestan elite wrestlers whose results could practical and useful.

Corresponding Author:

Mahraz moradi

E-mail: mahraz_moradi@yahoo.com

METHOD

20 subjects of Khuzestan elite wrestlers voluntarily participated in this survey. Control group (mean [\pm SD] height 174.5 \pm 2, weight 82.68 \pm 1, BMI 22.5 \pm 1). This study consists of sauna and maximal training and wrestling. Blood samples were taken from wrestlers and Control group. Independent t-test and Pearson correlation were used for survey of significance in each group in pre and posttest. The level of statistical significance was set at $p < 0.05$. Values are expressed as mean \pm SD.

RESULTS

Finding of this study indicate that wrestlers blood urea in sauna and one day after training (in post vs. pretest) had a significant change in training group (0.05).

The rate of blood electrolyte (sodium) did not have any significant change in significance ($p < 0.5$).

Likewise, in wrestling session in pre and posttest wrestling blood sodium in the significant level ($p < .271$) like sauna session did not have significant change on wrestlers.

Blood electrolyte (potassium) in attention to pre and posttest of wrestlers in sauna and significant level means that the amount of potassium in elite wrestlers has a significant change. Also, the rate of potassium in pre and posttest at the wrestling session is significant in the level of ($p < 0.011$).

This finding indicates augment in exclusion of blood electrolyte of potassium in two sessions of sauna and wrestling.

min	max	SD	mean	f	Group 1
17,00	20,00	3,10734	22,1000	10	age
174,00	183,00	2,70681	178,4000	10	Height(cm)
min	max	s.d	mean	fr	group 2
17,00	20,00	3,10734	22,1000	10	age
174,00	183,00	2,70681	178,4000	10	Height(cm)

CONCLUSIONS

The results of this study indicated that wrestlers blood urea in sauna (in post vs. pretest) in training group ($p < 0.05$) and the rate of urea in the day of training (in post vs. pretest) had a significant change ($p < 0.05$).

Finding about urea in sauna and wrestling was compatible with the study of Morteza solimani (2011) and Mohammad Reza Ramezanzpour, Javad Mohammadkhani but in contrast with Babing et al (2009).



The reason for this difference is perhaps the type of exercise, body composition of track and field and wrestling.

Augment in exclusion blood electrolyte potassium in two session of sauna and wrestling in comparison with studies of Maryam Nour Shahi (2011) and Ziya Moeini(2000) but in contrast with studies of Beton (2011) and Alonso(2007).

The reason for this difference may be due to the exercise protocol and imbibe water in subjects during exercise and sauna.

This study included Khuzestan elite wrestlers. It is suggested similar studies be performed on other sport in which reaching on ideal weight is important.

REFERENCES

- 1- Movahedi a.(2004) "examining effectiveness of ahmadreza movahedis metabolic theory and model for weight contro "asia pacj clin nutr.13(suppl)S145Katie
- 2- Reilly , T , Atkinson ,G , Water house . J . (2000) Chronobiology and Physical performance . exercise and Sport Science.Lipincott Williams and wilkins , Philadelphia : 351-372.
- 3- Baker LB,Dougherty KA,Chow M,Kenny WL.Progressive dehydration cause a progressive decline in basketball skill performance.Med Sci sports exerc 2007;39:1114-23.
- 4- Murray, B .(2007). Hydration and physical performance. Journal of the American college of Nutrition , 26(9): 542 s-548s





The Effect of Endurance Training on Serum hs-Creative Protein as an Inflammatory Predictor of Cardiovascular Disease in Untrained Men

BEHZAD KIA *

Department of Physical Education and Sport Sciences, Shoushtar Branch, Islamic Azad University, Shoushtar, Iran.

INTRODUCTION

This study aimed to determine the effect endurance training on hs-creative protein (hs-CRP) as a predictor of cardiovascular disease(2) but there hasn’t been any study about endurance training(3). So, the purpose of study is the investigation of the effects endurance training on hs-creative protein (hs-CRP) as a predictor of cardiovascular disease(5).

METHOD

30 healthy male students were selected and divided randomly into two equal groups (endurance training and control). Endurance group was trained for 12 weeks, 3 times a week at particular intensity and duration. Two blood samples were taken before and after training hs-CRP was measured using ELISA kits and immunoturbidometric assay.

* - Corresponding Author:

Behzad kia

E-mail: kiabehzad1973@gmail.com

RESULTS

It is observed that result showed that hs-CRP levels decreased significantly ($p=0.001$) after 12 weeks training.

Table 1. Physiological and biochemical changes of physical variables, endurance and control groups in the test and post test

Endurance group		Control group		index	Group
Post test	Pre - test	Post test	Pre - test		
25/00 ± 0/518		25/00± 6/30			age
175/00±9/04		175/00 ± 7/32			Height (cm)
±9/75 69/21	±1052 71/39	70/98	70/87		Weight (kg)
±1/77 22/35	1/87 22/92±	22/83	22/83		The body mass index (kg/m ²)
±1/49 16/62	±2/21 19/93	±2/58 19/56	±2/12 19/89		Body fat percentage(%)
±2/40 46/09	±2/49 41/80	± 2/14 42/11	± 2/53 41/93		The maximum oxygen consumption (mL/kg/min)
±0/016 0/373	0/ ±0/011 415	± 0/08 0/417	±0/097 0/414		CRP (Mg/d)

CONCLUSIONS

In conclusion it could be stated that regular endurance training (4), could be helpful reducing the risk cardiovascular diseases through lowering the serum hs-CRP levels (5).

REFERENCES

- 1) Kim H, Lee Ho, Kim CK. (2007). Bio makers of muscle and cartilage damage and inflammation during a 200 km. *Eur. Appl. Physiology*. 99: 443- 47.
- 2) Awodu OA, Famodo AA. (2007). Effects of exercise on hemorheological parameters of young Nigerian smokers. *Turk J Med Sci*. 37 (1): 11-16.
- 3) Claudia ST, Lauren BW, Ellen CU, Daniel PW, Scott BG, and Timothy GL. (2004). Effect of resistance training on c-reactive protein in postmenopausal women. *Med Sci Sports Exer*: 36(5).189-196.
- 4) Stauffer, Hoetzer, Smith and Desouza. (2004). Plasma C – reactive Protein is not elevated in Physically active postmenopausal women taking hormone replacement therapy. *Journal of Applied Physiology* .96: 143 - 48.
- 5) Ahmadizad S, El-Sayed M S. (2005). The effects of resistance exercise on the main determinantsof blood rheology. *Journal of Sports Science*. 23: 243-249.





Effects of Arbutin Supplementation on Liver Total Oxidant and Antioxidant Status Following a Period of Aerobic Exercise in the Liver of Alloxan-Induced Diabetic Rats

¹Fatemeh Rashidpour* ²Parvin Farzanegi, ³Mohammad Taghipour

1. Rashidpour Fatemeh (M.SC): Department of Physical Education and Sports Sciences, Sari Branch, Islamic Azad University, Sari, Iran.
2. Farzanegi Parvin (PhD): Assistant Professor, Department of Physical Education and Sports Sciences, Sari Branch, Islamic Azad University, Sari, Iran.
3. Taghipour Mohammad (PhD): Associate Professor, Mobility impairment Research Center, Babol University of Medical Sciences, Babol, Iran.

INTRODUCTION

Diabetes cause Exacerbated oxidative stress and reduced activity of the antioxidant defense system (1). Reactive oxygen species are produced in response to exercise and it seems that the use of antioxidant supplements reduces exercise-induced oxidative stress (2). In the present study, the effects of arbutin supplementation on total oxidant and antioxidant status (TOS&TAS) following a period of aerobic exercise in liver of diabetic rats were evaluated.

METHOD

In this experimental study a total of 42 male Wistar rats with average weight of 195-220 gr. randomly divided into 6 groups named control, diabetes, diabetes-exercise, arbutin, diabetic-arbutin, diabetic-arbutin-exercise. Aerobic exercise was programmed as five sessions per week during 6 weeks and 5-36 min/day. Alloxan (90mg/km) was injected to make diabetic rats and blood glucose higher than 250 mg/dl has been considered as diabetic. After that the arbutin

(50mg/kg) was injected subcutaneously. Liver biopsy was done to measure (TOS&TAS) after 72 hours the last exercise session. Data were analyzed by one-way ANOVA. Data analysis of variance Shdnd.hm study to examine the statistical software SPSS version 16 and a significance level of $P \leq 0.05$ was considered significant.

RESULTS

The mean liver TAS in arbutin and diabetes-exercise groups was significantly higher than relative to Diabetes and diabetes-arbutin groups and lower than relative to arbutin and control groups ($P \leq 0.05$). The mean difference liver TOS between diabetic group compared to diabetes-arbutin, arbutin and control groups and diabetes-exercise relative to arbutin group and diabetic-arbutin-exercise compared to arbutin group was significant ($P \leq 0.05$).

CONCLUSIONS

The results showed regular exercise cannot lead to complete inhibition of oxidation in the liver of diabetic rats by itself (3). But a combination method using exercise and arbutin simultaneously can be effective in improving TAS and TOS balance (4).

REFERENCES

- 1- Alipour, M. Salehi, I . Ghadiri, Soufi, F (2012), Effect Of Exercise On Diabetes-Induced Oxidative Strees In The Rat Hippocampus. Iran Red Crescent Med J;14(4);222-8
- 2- Arshadi.Sajad ,Peeri. Maghsood ,Bakhtiyari Salar. (2013) .The effect of 6 weeks swimming training on plasma antioxidants activity in diabetic rats ; European Journal of Experimental Biology, 3(4):230-235
- 3- Gholizade N , Khanbabapoor Z, Habibnejad F, Lakzaei M,Pouramir M. Effects of Pyrus Boissieriana Buhse Leaves Extract on Antihyperglycemic,Antioxidant and Antilipidproxidative in Rats. J Babol Univ Med Sci; 11(4); 2009 :7- 12
- 4- Grzelak P, Czupryniak L, Olszycki M, Majos A, Stefańczyk L.Age effect on vascular reactivity in Type 1 diabetes.Diabet Med. 2011 Jul;28(7):833-7.



The Effects of Selected Aerobics Training on Time of Fatigue Incidence and Some Physiological Factors in Patients with Multiple Sclerosis

BEHZAD KIA *

Department of Physical Education and Sport Sciences, Shoushtar Branch, Islamic Azad University, Shoushtar, Iran.

INTRODUCTION

This study aimed to investigate the effects of interval aerobic training on time of fatigue incidence, and some physiological factors in patients with multiple sclerosis (1). But there isn't any study about interval aerobic training on time of fatigue incidence (4). So, the purpose of study is the investigation of the effects of interval aerobic training on time of fatigue incidence, and some physiological factors in patients with multiple sclerosis.

METHOD

Twenty five female patients with relapsing-remitting multiple sclerosis with average age 25 years, illness time (4 ± 1) and moderate disability (EDSS: 1.5-6) were selected purposefully and divided randomly into two groups of Experimental (exp.: $n=15$) and control (cont.: $n=10$). In order to evaluate fatigue incidence time, heart rate and blood pressure cycle ergometer, electrocardiogram and stethoscope were used, respectively. After pre-test measurements no significant differences were observed between two groups for all measured variables. Besides medicinal treatment, subjects in experimental group performed an interval aerobic training on

* - Corresponding Author:

Behzad kia

E-mail: kiabehzad1973@gmail.com

cycle ergometer at an intensity corresponding to 60% of HRmax for 6 weeks, 3 sessions per week. Independent t-test level of significance was set at $P < 0.05$. After the intervention, time of fatigue incidence increased significantly in experimental group. But changes in heart rate and blood pressure were not significantly different between two groups.

RESULTS

It is observed that The findings showed that 6 weeks of regular interval aerobic training on cycle ergometer, 3 sessions per week, at 60% of HRmax performed under the coach supervision and alongside medical treatment in patients with relapsing-remitting multiple sclerosis and moderate disability (EDSS: 1/5-6) has a positive effect on delaying time of fatigue incidence. But this training has no effect on resting heart rate and blood pressure.

Table 1. Aerobics exercise program by the time pedal shuffle, repeat, time off, rest sessions per week and the weeks practice.

Run the post test	6	5	4	3	2	1	weeks	Run the pre test
	10	9	8	7	6	5	training	
	Pedal time to minutes						The number of repetitions	
	Three repeat							
	Three minutes						Rest time is disabled	
Three sessions						Sessions per week		

Table 2. The values of the time resting heart rate, blood pressure, fatigue, systole and rest in the dyastol test and posttest experimental and control groups for the mean and standard deviation

Control group		The experimental group		group
Post test	Pre test	Post test	Pre test	Variable-the-test
8/58± 2/81	8/13± 2/88	21/49± 8/04	8/05± 4/36	Time of the occurrence of fatigue
84/5 ± 9/84	86/00 ± 10/75	84/00 ± 11/27	83/00 ± 14/24	Resting heart rate
11/55± 1/73	12/00 ± 0/82	10/37 ± 1/44	10/66 ± 0/95	Blood pressure in systole rest
7/75 ± 1/55	8/22 ± 0/83	7/30 ± 0/62	6/86± 0/74	Blood pressure dyastol break

CONCLUSIONS

In conclusion, based on the findings of the present study it could be concluded that short-term interval training in patients with multiple sclerosis(3), has a positive impact on fatigue incidence but has no effect on hemodynamic variables(5).



REFERENCES

- 1) Bjarnadottir OH , Konradsdottir AD, Reynisdottir K, Olafsson E. (2007). Multiple sclerosis and brief moderate exercise. *Mult sclera*. 13(6):776-82.
- 2) Crayton H, Heyman R, howard S. (2004). A multimodal approach to managing the symptoms of multiple sclerosis. *Neurology*. 63(15): 12-18.
- 3) Morrison EH, Cooper DM, White IJ, Larson J, Leu SY, Zaldivar F. (2008). Ratings of perceived exertion during aerobic exercise in multiple sclerosis. *Arch Phys Med Rehabil*. 89(8):1570-4.
- 4) Newman MA, Dawes H, Vandenberg M, Wade DT, Burridge J, Izadi H. (2007). Can aerobic treadmill training reduce the effort of walking and fatigue in people with multiple sclerosis ,a pilot study. *Mult Scler*. 13(1):113-9.
- 5) Romberg A. (2004). Effects of a 6-month exercise program on patients with multiple sclerosis –a randomized Study . *neurology* . 63: 2034-38.





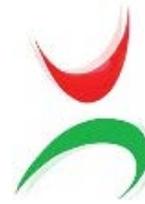
Motor Behavior



Annals
of
Sport
Applied Science



Annals
of
Sport
Applied Science



Observational Learning: A Suitable Alternative to Physical Practice

¹Mahsa Ajam, ²Hassan Rohbanfard*

1 M.A. in Physical Education and Sport Sciences, Bu-Ali Sina University, Hamedan, Iran.

2. Assistant Professor, Bu-Ali Sina University, Hamadan, Iran

INTRODUCTION

There is no doubt that physical practice leads to learning a motor task. However, this type of practice is not always possible, or in some cases may not be the best strategy (e.g., injury, etc.). Moreover, in some cases it needs enough time and facilities. Various studies, on the other hand, have shown that another effective way for motor learning is observing a model performing the same task, known as "observational learning" (1-5). It is believed that observation enables an individual to determine the key spatial and/or temporal features of the task, which removes the need to create a cognitive representation of the action pattern through trial and error (i.e., physical practice; 1). For example, Rohbanfard and Proteau (2011) indicated that observing a novice model, an expert model, or a combination of both novice and expert models leads to better learning of a relative timing task (2). However, research investigating the effectiveness of each training method (physical practice vs. observation) was not found. The aim of the present study, therefore, was to determine whether observation of a model by itself results in same learning as compared with physical practice. Neurological research has illustrated that the same areas of the brain are activated during the execution of a task as well as during the observation of a model performing the task. Despite the belief that physically practicing a motor skill is the best learning

Corresponding Author:

Hassan Rohbanfard

E-mail: hrahbanfard@yahoo.com

strategy, then, it is hypothesized that observation or physical practice leads to same results while learning short backhand serve in Badminton.

METHOD

To reach our goal, 64 right-handed female students at Bu-Ali Sina University of Hamedan - who voluntarily participated in the study - were randomly divided into four groups. Three groups watched a video presentation of an expert, a novice, or a mixed model (a combination of expert and novice models), who was performing the short backhand serve in Badminton. The other group physically practiced the task. Following acquisition phase, all groups took part in two retention/transfer tests (10 min and 48 hr). Using SPSS, repeated measure ANOVA was run to analyze data ($\alpha = .05$). Results are shown in Figure 1

RESULTS

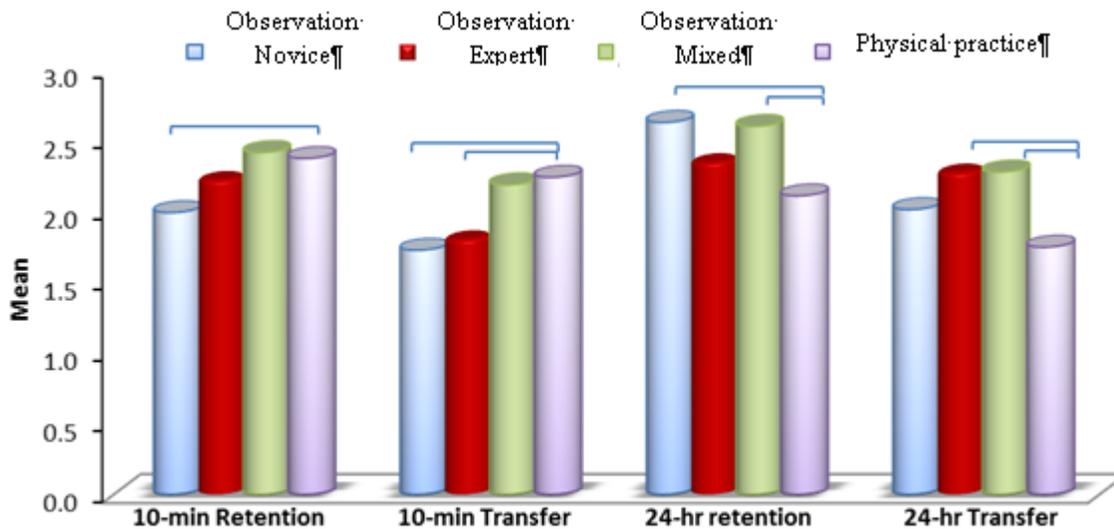


Figure 1. Experimental Phases

CONCLUSIONS

The results of the present study showed that physical practice group outperformed some of observation groups in 10-min retention/transfer tests, although this preference was disappeared during 24-hr retention/transfer tests. In this phase, even, some of the observation groups performed better than the physical practice group. It seems that a better performance of the physical practice group in 10-min retention/transfer tests was a result of "performance effects" of



doing the same thing frequently, as these temporal effects were removed during the 48-hr retention/transfer tests. By the way, the performance of observation groups showed consistency and, thus, reflected "learning" of the motor task. To summarize, in some conditions physical practice can be replaced properly by observation. These results help coaches and athletes to organize the most effective practical settings.

REFERENCES

- 1- Buchanan JJ. Dean NJ. Specificity in practice benefits learning in novice models and variability in demonstration
- 2- Rohbanfard H. Proteau L. Learning through observation: a combination of expert and novice models favors learning. *Experimental brain research*. 2011 .215(3-4): 183-197
- 3- Andrieux M. Proteau L. Observation learning of a motor task: who and when? *Experimental brain research*. 2013 .229(1): 125-137
- 4- Andrieux M. Proteau L. Mixed observation favors motor learning through better estimation of the model's performance. *Experimental brain research*. 2014 .1-12
- 5- Ajam M. The effects of observation of a combination of expert and novice models on learning a sport skill. 2014. Bu-Ali Sina University of Hamedan [Thesis in Farsi].





Comparison of Perceived Motivational Climate between Female and Male Basketball Players Ranging from 18 to 23 Years Old

¹Reihaneh Ezzati*, ²Shahzad Tahmasebi Brojeni, ³Akbar Bohloul

1. MSc, Motor behavior, University of Tehran, Tehran, Iran
2. Assistant Professor of University of Tehran, Tehran, Iran
3. MSc, Motor behavior, University of Tehran, Tehran, Iran

INTRODUCTION

Perceived motivational environment is social –cognitive activity that refers to individual’s goal orientation. In other words, how individuals perceive their surrounding social environment and in which category (self-oriented or task oriented) put their goal orientation in accordance with understanding their motivation. The main purpose of the present study is to examine perceived motivational environment between female and male basketball players ranging from 18 to 23.

METHOD

Participants included 86 Basketball players (f=43, m=43) participating in 12th Iranian student sport Olympia with the average age of (21.09± 1.37). The second version of Perceived Motivational Climate in Sport (PMSCQ-2) was used to evaluate the athletes’ motivation. Approximately all the participants were playing in university level with mean sport experience of (7.52±2.51). In this study, with significant level of 0/05, S-K test was used for examining normal

Corresponding Author:

Reihaneh ezzati

E-mail: reihanehezati@ut.ac.ir

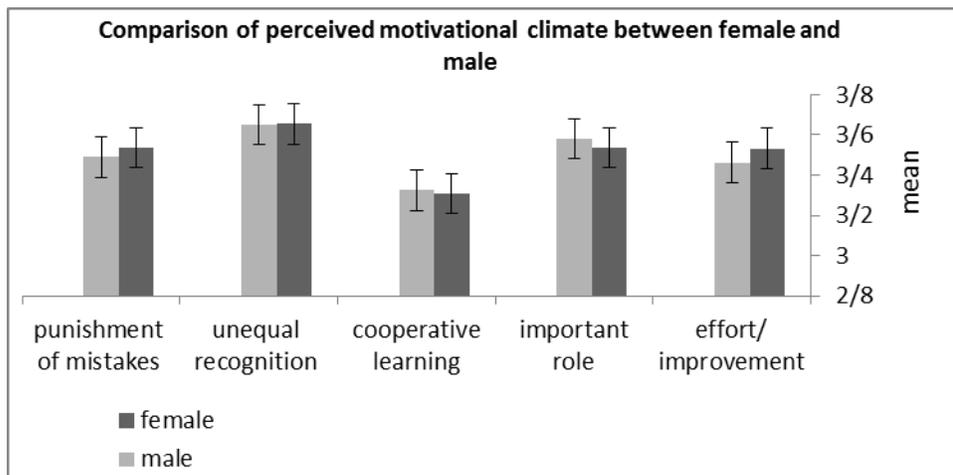
distribution of data, descriptive statistics for reporting scores and independent t-tests for distinguishing the performance of 2 genders.

RESULTS

The result of study showed no significant differences between men and women in self-oriented & task-oriented dimensions and showed no significant differences between men and women in perceived motivational climate. ($p \geq 0.05$).

category	gender	Number of participants	Mean	Mean SD n	Standard error of mean	t	P value $p \leq 0.05$
self-oriented	female	43	3.59	0.36	0.05	0.219	0.827
	male	43	3.57	0.68	0.10		
task oriented	female	43	3.45	0.38	0.05	- 0.46	0.641
	male	43	3.50	0.47	0.07		

Also, just as showed in graph 1, there was not any significant differences between men and women basketball players in self-oriented & task-oriented dimensions. $p \geq 0.05$.



Graph1. Comparison of perceived motivational climate between female and male basketball players



CONCLUSIONS

The result of this study showed no significant differences between men and women in self-oriented & task-oriented dimensions. The results of this study support importance of creating motivational climate in sport and suggest coaches and athletes to pay special attention to motivational dimensions. Also we suggested to researchers that research more about motivational climate in the other sports.

REFERENCES

- 1- Newton M, Duda JL, Yin Z. (2000). Examination of the psychometric properties of the perceived motivational climate in sport questionnaire 2 in a sample of female athletes. *Journal of Sport Sciences*, 18: 275-290.
- 2- Wang, J. C., Liu, W. C., Chatzisarantis, N., & Lim, C. B. S. (2010). Influence of perceived motivational climate on achievement goals in physical education: A structural equation mixture modeling analysis. *International Journal*.
- 3- Reinboth M, Duda J. (2006). Perceived motivational climate, need satisfaction and indices of well-being in team sports: a longitudinal perspective. *Psychology of Sport and Exercise*, 7: 269-286.
- 4- Moreno Murcia J.A., Gimeno Cervelló E., & González-Cutre Coll D.(2007). Young athletes' motivational profiles. *Sports Science and Medicine*. (6):172-9.
- 5- Nicholls, J.G. (1989). *The competitive ethos and democratic education*. Cambridge, MA: Harvard University Press.
- 6- Smith, A.L., Biddle, S.J.L. (2008). *Youth physical activity and sedentary behavior: Challenges and Solutions*. Champaign, IL: Human Kinetics.





Comparison of Proficiency Level (Skilled vs. Unskilled) in Learning Basketball Lay-up Shot

¹Sara Tarhi Miandoab*, ²Mohammadtaghi Aghdasi, ³Marina Daneghian

1. Sama technical and vocational training college, Islamic Azad University, Miandoab Branch, Tabriz, Iran.
 2. Associate professor, Department of Physical Education and Sport Sciences, Tabriz Branch, Islamic Azad University, Tabriz, Iran.
- Sama technical and vocational training college, Tabriz Branch, Islamic Azad University, Tabriz, Iran.

INTRODUCTION

Because it is difficult to be able to describe how movements are performed, observational instruction is often used as well as verbal instruction. Therefore, studying motor behavior modification is of utmost importance for researchers (1). One of the most important aspects of motor skill instruction is to provide a presentation (display) in order to lead the learner to appropriate technique and optimal performance (11). The main purpose of this study was to compare the skillful and none skillful model in basketball lay-up shot learning.

METHOD

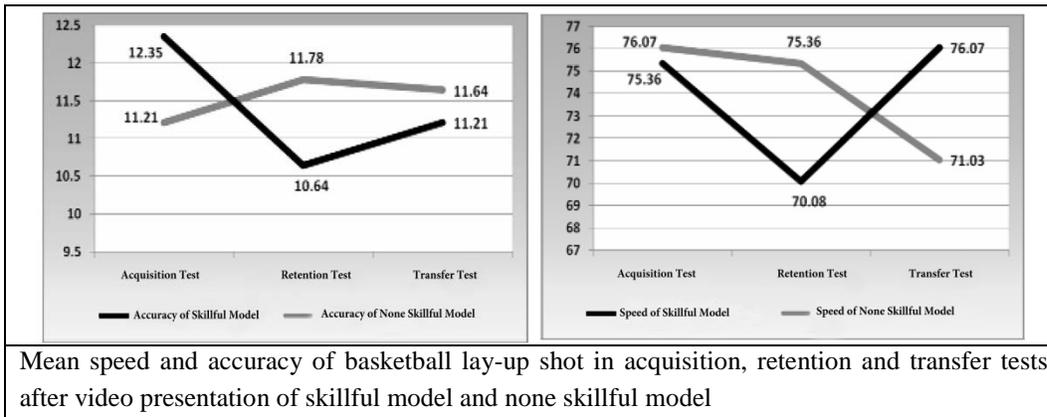
28 female students (average age of 14-17) were randomly selected. After completing questionnaires, they participated in pre-test. According to their Scores Rating, they were randomly divided into two groups (skilled and unskilled model). One group observed skilled

Corresponding Author:
Sara Tarhi Miandoab
E-mail: tarhysara8@gmail.com

model performance, while the other observed unskilled model, performing lay-up shot for 20 times in 6 sessions. At the end of the 6th session they carried out acquisition test, after 48 hours of no training session, they were taken delay retention test and transfer test was followed.

RESULTS

Mean speed and accuracy of lay-up shot in acquisition, retention and transfer tests after video presentation of skilled and unskilled model, both groups performed approximately similar to each other in terms of speed of acquisition test and accuracy of retention test.



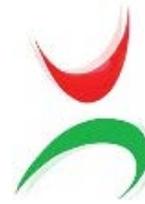
CONCLUSIONS

The results showed that skill level of the model (skilled and unskilled model) had no significant effect on acquisition, delayed retention and transfer in lay-up shot task. The effect of these two groups had no significant differences on three tests.

REFERENCES

- 1- Eshmite,A, R,1941,Motor learning and performance, translated of Namazizadeh-Vaez Mossavi, Samt publication
- 2- Blandin.Y, and Proteau,(2000).On the cognitive basis of observational learning : Development of mechanisms for the detection and correction of errors. Journal of quarterly experimental psychology. 53A,846-867





Comparison between Simple Visual Reaction Time in Obese, Overweight and Normal Children

¹Ehsan Zareaian, ² Elahe Siavashi *, ³ Habib Allah Azarhazin

1. Department of Physical Education and Sport Sciences, Allameh Tabataba’i University, Tehran, Iran.
2. M.Sc Student of Allameh Tabataba’i University, Tehran, Iran.
3. M.Sc of Kharazmi University, Tehran, Iran.

INTRODUCTION

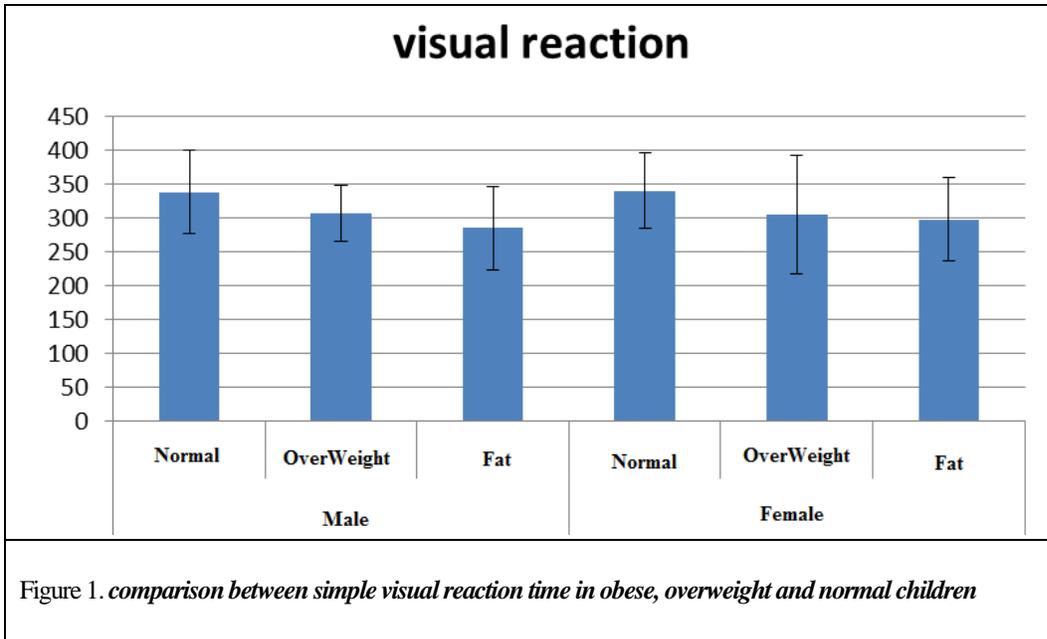
Obesity is globally epidemic and has been found to be associated with multiple health hazards(1,2) Reaction time is the time interval from the onset of the stimulus to the very beginning of the motor action, and reflects the integrity of the information processing system(3). The relationship between obesity and cognition is evident in both children and adolescents, with higher body mass indices (BMIs) associated with poor attention and task-switching abilities (4). Some experimental data have indicated that CNS may also be affected by obesity leading to cognitive decline and dementia (5).

METHOD

The statistical population of the research included all of the 8-12 aged students of Shahr-e-Ghods. They were divided into 3 categories: obese, with overweight and normal. The reaction time software was used in order to measure reaction time. Also, the participants were asked to respond quickly to stimuli.

RESULTS

The results of Two Way Variance analysis test indicated that there are no differences between groups ($p= 0.78$).



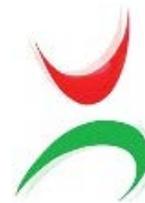
CONCLUSIONS

Various neurophysiological studies have shown that greater BMI is associated with reduced cognitive performance especially in area of attention, execution and memory (6), but to this study no differences between groups. Inconsistent result can relate to different age condition and selection of participants or types of reaction time.

REFERENCES

1. Pigeot, I., Barba, G., Chadjigeorgiou, C., de Henauw, S., Kourides, Y., Lissner, L., et al. (2009). Prevalence and determinants of childhood overweight and obesity in European countries: Pooled analysis of the existing surveys within the IDEFICS Consortium. *International Journal of Obesity*, 33, 1103–1110.
2. World Health Organization, "obesity and overweight, Fact sheet no.311," september 2006.
3. Magill, R. A. *Motor learning and control: Concepts and applications* (8th ed.). New York, NY (2011): McGraw-Hill Companies.
4. Cserjési, R., Luminet, O., Poncelet, A., Lénárd, L., 2009. Altered executive function in obesity. Exploration of the role of affective states on cognitive abilities. *Appetite* 52, 535–539.
5. Bruce-Keller AJ, Keller JN, Morrison CD. Obesity and vulnerability of the CNS. *BIOCHIM Biophys Acta*. 2009; 1792(5):395-400.
6. Cournot M, Marquie jc, Ansiau D, Martinud c. Relation Body Mass Index and cognitive function in healthy middle aged men and women. *Neurology* 2006; 1208-1214.





The Effect of Relaxation Training with Physical Activity on Mental Health of Students

¹Neda ghobadi*, ²Mahboubeh Yousefpour Soleymani

1. PhD Student School of Physical Education and Sport Sciences, Kharazmi University, Iran.
2. Department of Physical Education and Sport Sciences, Science and Research Branch, Islamic Azad University, Mazandaran, Iran.

INTRODUCTION

The case for exercise and physical health is now widely accepted by medical authorities across the world [1]. Sedentary living doubles the risk of morbidity and mortality from coronary heart disease and stroke [2] which is comparable with the risk associated with hypertension and hyperlipidemia.

The relationship between mental, physical ability and performance was of the most principles of modern sport psychology to integrate and teach aspects of cognitive-psychology, neurology, psychophysiology, and sport-exercise science [3].

Mental training method is one of the new methods that have been used in motor learning domain because many of researchers recognized the importance of using mental concepts which help to improve the level of skill performance in physical education [4].

Physical activity can be viewed from four different perspectives regarding its direct contribution to solving mental health problems: 1. Treatment of mental illness and disorders; 2. Prevention of mental illness and disorders; 3. Improvement of mental and physical well-being of those with mental illness; 4. Improvement of mental well-being of the general population.

Relaxation exercises are an effective tool of sport psychology that help reduce tension among peoples, thus giving them the ability to deal with psychological pressures and improve their

Corresponding Author:

Neda Ghobadi

E-mail: ghobadi_neda@yahoo.com

muscle tone. As a result, the psychological fitness of the person is enhanced. This aim of this study was to investigate the effects of relaxation exercises with selected physical activity on girl's mental health.

METHOD

In this regard, 80 female students (15 to 17 years) participated in this study. They were divided into 4 similar groups. Categories include: relaxation groups (n=20), the physical activity group (n=20), relaxation with physical activity group (n=20) and control group (n=20). Experimental groups performed exercise for 6 weeks and 2 times a week. But the control group did their routine activities. Mental health of participants before and after the exercise intervention was assessed by General Health Questionnaire (GHQ - 12). The obtained data was analyzed by multivariate of variance (MANOVA) and Bonferroni test.

RESULTS

The statistical data show that the effects of relaxation training ($P<0/0001$), effects of Physical activity ($P<0/0001$), effects of Combined exercises ($P<0/0001$).

CONCLUSIONS

This study showed that relaxation training and Physical activity and combined exercises cause to be improving to general health student girls. Although not differences were observed between the three groups, but this study emphasizes the relaxation of role in general health. The employing different methods of relaxation are as an effective and practical aims. So, it is suggested that effect of other relaxation methods with physical activity and also interactivities influences of combination training types would be used. In conclusion, eccentric exercise caused WBC elevation that it was maybe due to neutrocytosis (3), and lymphocytosis (4), but in recovery period of 24h after exercise it was only due to lymphocytosis (5).

REFERENCES

- 1- US Department of Health and Human Services (PHS), Physical activity and health, A report of the Surgeon General (Executive Summary), 1996, Pittsburgh, PA: Superintendent of Documents.
- 2- Berlin JA, Colditz GA, *Am J Epidemiol*, 1990, 132, 612–28.
- 3- Martin G.L., VauseT & SchwartzmanL. Experimental Studies of Psychological Interventions with Athletes in Competitions: Why so Few? *Behavior Modification*,2005. 29, 616-641.
- 4- Stamatakis E, Hillsdon M, Primatesta P, *Am J Prev Med*, 2007, 32, 320–7.
- 5- Shamoun ME, Mental training in the sports field, Dar Elfekr El-Araby, second edition, Cairo, 2004, pp, 273.



Comparison between the Opening and Closing Skills Athletes in terms of Emotional Intelligence and Athletic Performance

¹Payam Mohammad panahi, ²Moein Abdolmalaki*, ²Hamid Sarabi

1. Department of Physical education and Sport Sciences, Qorveh Branch, Islamic Azad University, Qorveh, Iran
2. Bachelor of Physical Education and Sports Management.

INTRODUCTION

Communication and exchange of huge interest in understanding the relationship between personality variables sports, and much of the literature, to identify six broad areas of mental skills that are discussed in the text refers to the functional (1) (Hardy et al., 1996). These concerns have focused on main issues: 1) Many of the components and characteristics of individual components used are traditional for special use by athletes underdeveloped. 2) Many component in a clinical context with theoretical models of psychopathology as intellectual level has been improved. 3) Data were used to validate the specification has been developed in non-athletes. 4) Poor sampling techniques, experimental methods and statistical techniques due to the high quality of this device is invalid. 5) Many tools are concentrated on a single skill or competence based on the character of the place. 6) Lack of a conceptual framework for comparison between athletes and non-athletes. Despite the widespread use of psychological factors in sports psychology, researchers and useful questions have raised valid and appropriate athletic fields. Now, a new concept in the field of sport psychology, emotional intelligence. And the most powerful force for leadership and

success. (Goleman, Daniel). A growing interest in the sport is about emotional intelligence (Mayer and Zizi, 2007). Recent research found that emotional intelligence and emotional experience associated with successful and failed before the function (Lin et al, 2009). Lin et al (2009) showed that the feelings and emotions that are associated with successful performance, power, joy and peace. In fact, poor emotional functions such as confusion, depression and fatigue are related. Emotional intelligence enjoyable and negative feelings associated with unpleasant feelings. In addition, Lin et al (2009) found that emotional intelligence scores were associated with the use of psychological Mkrmhart. Athletes report that repeated applications of psychological skills (Thomas et al., 1999)

METHOD

They studied 40 male athletes from Division I basketball and weightlifting championships that all of them were present, (= n20; basketball) open and skills (= n20; weightlifter) package of sports skills. In the category of persons aged 18 to 28 years in the study of the subject and had enough information, and provide your written consent. Emotional Intelligence Questionnaire (EIQ16) was used to open and close different emotional intelligence among athletes have the skills to evaluate. Measuring Tools the following questionnaire was used to collect the data needed Emotional Intelligence Scale - I (1997)

RESULTS

Table 1 shows that significant differences in self-analysis ($p=0.0005$), other-analysis ($p =0.0130$), the self-expression ($p =0.0270$), thinking ($p =0.0175$), judgment ($p =0.0010$) solution problem ($p =0.0315$), complexity ($p =0.0025$), phase change ($p =0.0011$), honesty ($p =0.0055$), self ($p =0.0561$) and other items ($0.0481 = p$). Among the athletes have the skills to open and close ($p <0.05$) there. The results indicate that significant differences in discrimination ($p =0.1645$), Sensibility ($p =0.0651$), symptoms ($p=0.2514$), results ($p =0.0655$) self-monitoring ($p =0.2211$) absent ($0.05 <p$).

P Value	T Value	SEM		SD		Mean		Variables
		Closed Skill	Open Skill	Closed Skill	Open Skill	Closed Skill	Open Skill	
*,***	*4,200	0,84	0,92	3,80	4,10	03,30	00,90	Self-Analysis
*,**	*2,610	0,67	0,60	3,13	3,04	22,40	20,40	Others-Analysis
*,**	*2,280	0,84	0,60	3,70	2,60	18,00	20,00	Self-Expression
*,**	1,314	0,60	0,30	2,70	1,32	12,80	12,10	Discrimination
*,**	*2,060	0,30	0,40	1,30	2,10	11,60	10,00	Thinking
*,**	*3,762	0,83	1,01	3,80	4,00	03,00	00,10	Judgment



۰,۶۵۱	۱,۷۵۵	۳,۶۸	۰,۶۵	۳,۱۲	۳,۰۵	۲۳,۴۰	۲۲,۰۰	Sensibility
۰,۳۱۵	*۲,۳۳۰	۰,۸۳	۰,۵۳	۳,۹۲	۲,۶۰	۱۹,۵۰	۲۰,۲۵	Problem Solution
۰,۲۵۱۴	۱,۱۴۳	۰,۵۹	۰,۲۹	۲,۸۰	۱,۳۱	۱۴,۰۵	۱۳,۳۰	Symptoms
۰,۰۶۵۵	۱,۸۵۰	۰,۳۰	۰,۴۰	۱,۴۰	۱,۸۵	۱۱,۷۹	۱۰,۹۰	Results
۰,۰۰۲۸	*۳,۲۱۵	۰,۹۰	۱,۰۰	۴,۰۵	۴,۴۵	۵۳,۰۰	۵۰,۸۰	Complexity
۰,۰۰۱۱	*۳,۷۷۳	۰,۶۳	۰,۶۵	۲,۸۹	۲,۹۰	۲۳,۲۵	۲۰,۹۰	Phase Change
۰,۰۰۵۵	*۳,۰۷۵	۰,۸۳	۰,۶۱	۳,۷۵	۲,۸۰	۱۸,۴۵	۲۱,۵۰	Honesty
۰,۲۲۱۱	۱,۱۵۱	۰,۶۱	۰,۲۵	۲,۷۵	۱,۲۵	۱۴,۰۵	۱۲,۲۳	آگاهی
۰,۰۵۶۱	*۲,۰۳۱	۰,۳۱	۰,۳۵	۱,۵۵	۱,۷۵	۱۱,۵۵	۱۰,۷۰	Self-Monitoring
۰,۰۴۸۱	*۲,۱۰۲	۰,۸۵	۱,۱۰	۳,۸۳	۴,۸۵	۵۱,۶۵	۵۰,۲۰	Other Items

CONCLUSIONS

Emotional intelligence (EI) is more and more realistic assessment of the implementation of other measures in many areas of human activity (Ajay et al., 2008). However, evidence suggests that it is used for amateur athletes and their possible effect on athletic performance is not yet known (Ajay et al. 2008).

Therefore, this study aimed to compare the skills of emotional intelligence among athletes was opened and closed. The results showed significant differences in their analysis (0.0005 p), other analysis (0.0130p =), the expression (0.0270 = p), thinking (0.0175 = p), judgment (0.0010p =), solution problem (0.0315 = p), complexity (0.0025 = p), phase change (0.0011p =), honesty (0.0055 = p), self (0.0561p =) and other items (0.0481 = p). Among the athletes have the skills to open and close (0.05p <) is the study noted that a difference in your analysis, analysis of others, self-expression, thinking, judgment, problem solving, complexity, transmission, openness self-control and control the opening and closing skills are among athletes. results from the significant differences in the discrimination (0.1645p =), sensitivity (0.0651p =), symptoms (0.2514 = p), results (0.0655p =) and monitoring (0.2211p =. (No. Of suggests that any difference of discrimination, sensitivity, symptoms, results and supervision of skilled athletes, there is no opening and closing skills. These findings proved the claim investigator Hannan (2000), who believes that feelings can range from performance can fluctuate and cause both positive and negative experience (Hannan, 1997; Jones, 2003). In the study of emotions and their impact exercise performance, researchers Brown (2002) claimed that athletes should be critical experiences row. With regard to the structure of emotional intelligence as the ability to understand, monitor, and manage emotions employment is defined, it is essential that we assess the relationship between emotional intelligence and emotion regulation. In fact, research has shown that emotional regulation can lead to the desired location (Leach, 2001). So, no it is not surprising that researchers have discovered a useful tool in the exercise of their emotional



intelligence (Mayer et al., 2003; Meyer and Fletcher, 2007; Meyer and Zizi, 2007; Zizi et al., 2003). As a result, emotional intelligence is an important structure in the field of sport (Meyer and Fletcher, 2007). Accordingly, interest in emotional intelligence specifically increased in athletes and heroes (Zizi et al., 2003). Proponents of this theory claim that emotional intelligence can be a function of leadership, team cohesion and Gary deal with the pressure increase.

REFERENCES

- 1- Hardy et al. (1996). Anxiety-induced performance catastrophes investigating effort required as an British Journal of Psychology 98, 15–31.
- 2- Zizzi S.J., Hirschhorn, D.k. (2003). The Relationship between Emotional Intelligence and Performance among College Baseball Players. J. Appl. Sport Psychol., 15(3): 262-269

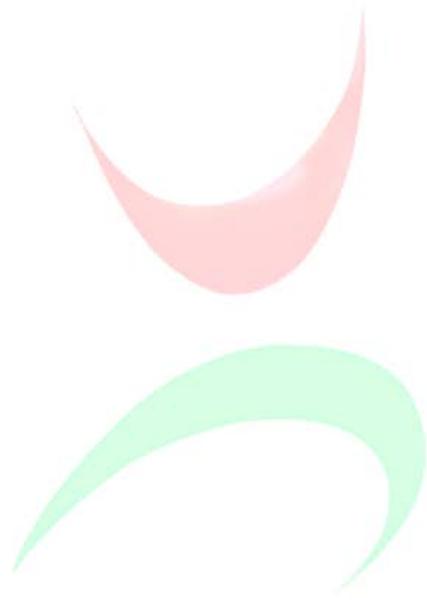




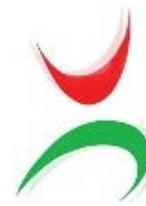
Sport Biomechanics



Annals
of
Sport
Applied Science



Annals
of
Sport
Applied Science



The Plantar Pressure Distribution among Low Back Pain Patients in Static and Dynamic Positions

¹Mohsen Mohammadi*, ² Murat Kaldırımçı, ³ Ahmet Gökhan Yazıcı, ⁴ Seyed ebrahim kazemi

1. Department of Physical Education and Sport Science, Atatürk University, Erzurum, Turkey.
2. Department of Physical Education and Sport Science, Atatürk University, Erzurum, Turkey.
3. Department of Physical Education and Sport Science, Atatürk University, Erzurum, Turkey.
4. Department of Physical Education and Sport Science, Gazi University, Ankara, Turkey.

INTRODUCTION

The lumbar spine is a place to transfer force from the upper body to the lower extremities (1) and Low back pain (LBP) is one of the most common musculoskeletal problems (2). Patients with LBP experience changes in walking pattern which may lead to changes in the pressure pattern at the foot (3). The purpose of this study was to determine plantar pressure distribution among LBP patients in standing and walking.

METHODS

The 56 LBP male and female with an average age of 47.7 ± 4.6 yr, height of 169.5 ± 5.6 cm and weight 82.2 ± 7.3 kg participated in this study. Plantar pressure was measured using the foot scan system (RS-Scan) in ten anatomical regions at two conditions, standing and walking. Statistical data analysis was performed by using paired samples t-test and independent t-test at $p \leq 0.05$.

RESULTS

The results showed that during walking the highest and least pressure was at fourth metatarsal head and midfoot, respectively and there were significant differences between male and female in static pressure values for the lateral and medial heel regions and toe.

Corresponding Author:
Mohsen Mohammadi
E-mail: mohsen64_m@yahoo.com

CONCLUSION

In the scientific literature for plantar pressure distribution among LBP patients, there is no valid data regarding. In addition, there are differences in plantar pressure distribution between LBP patients and able-bodied people that would be considered at shoe designing.

REFERENCES

1. Da Fonseca JL, Magini M, De Freitas TH. Laboratory gait analysis in patients with low back pain before and after a pilates intervention. *Journal of Sport Rehabilitation* 2009; 18: 269-282.
2. Bussey MD, Bell ML, Milosavljevic S. The influence of hip abduction and external rotation on sacroiliac motion. *Manual Therapy* 2009; 14: 520-525.
3. Deepashini H, Omar B, Paungmali A, Amaramalar SN, Ohnmar H, Leonard J. Reliability Study of Plantar Pressure Measurement Among Low Back Pain Patients Carrying Different Loads. *Middle-East Journal of Scientific Research* 2014; 21 (7): 1044-1050.





Roundhouse Kick’s Variability in Kinematic Coupling Assessed by Continuous Relative Phase and Vector Coding in Elite Taekwondo Players

¹Kamran Azma, ²Hamid Reza Barnamei*

1. Department of Medicine and rehabilitation, AJA University, Tehran, Iran.
2. Department of Biomedical Engineering, Science and Research Branch, Islamic Azad University, Tehran, Iran. University, Tehran, Iran.

INTRODUCTION

Taekwondo techniques are inherently variable. A traditional perspective from Shannon’s information theory (Shannon, 1948) argues that variability is synonymous with “noise” arising from errors, either in the performance of the movement or in the recording and treatment of the data (Fitts, 1954; Schmidt et al., 1979). Alternatively, dynamical systems theory argues that variability is not inherently good or bad, but reflects the variety of coordination patterns used to complete the task (Haken et al., 1985; Schoëner and Kelso, 1988).

Researchers have used different techniques of nonlinear dynamics to study the structure of variability in sports movement. The two most popular techniques for quantifying variability in human movement appear to be vector coding (Heiderscheit et al., 2002; Ferber et al., 2005; Wilson et al., 2008) and continuous relative phase (CRP) (Hamill et al., 1999; Irwin and Kerwin, 2007; Miller et al., 2008). Although both techniques involve the assessment of coordination by the quantification of phase plane trajectories, the phase planes constructed with these two techniques are fundamentally different. The vector coding phase plane contains only spatial information derived from positional signals, while the CRP phase plane contains both position and velocity signals, and provides spatiotemporal information. In light of these differences, there is no assurance that vector coding and CRP convey similar information on the structure of variability when they are used to study a particular movement. In addition, a direct comparison between variability quantified by vector coding and by CRP has not been widely demonstrated in the biomechanics and motor control literature. Consequently, it is difficult to make comparisons between studies that use vector coding and those that use CRP. These comparisons are important if both techniques are to be used as measures of variability. Therefore, the purposes of the study

Corresponding Author:
Hamid Reza Barnamei
E-mail: hamid.barnamei@gmail.com

were to directly compare roundhouse kick's variability quantified by vector coding and CRP in Taekwondo, and to determine if these techniques convey similar information on variability.

METHODS

Six elite athletes of National Taekwondo Team of Iran who won many medals of Taekwondo games at international level. In experimental setup, we chose the roundhouse kick being testing movement, which is the most frequently used technique in competitions, the Motion Analysis System with 5 high speed cameras (S Infrared, Vicon camera, Oxford metrics, Oxford, UK) were used to collect the kinematics data (sampling rate at 200 Hz) through tracking the 22 markers automatically, and then the joint velocity and angular velocity for each lower limb were derived from the time series. The movement time was calculated from toe-off to the ground contact. In all the examples that follow, the coupling between two time-varying signals θ_1 and θ_2 was assessed. The two signals were always of equal length, sampled n times at the same points in time.

2.1. Vector coding

Vector coding was performed using the method of Sparrow et al. (1987). A phase plane was constructed, consisting of θ_1 on the x-axis and θ_2 on the y-axis. Coupling between θ_1 and θ_2 was quantified by the coupling angle θ_{VC} between consecutive coordinates in the phase plane

$$\theta_{VC}(i) = \tan^{-1} \left| \frac{\theta_2(i+1) - \theta_2(i)}{\theta_1(i+1) - \theta_1(i)} \right|, \quad i = 1, 2, \dots, n-1$$

Where i indicates the point within the time series.

2.2. Continuous relative phase

Continuous relative phase (CRP) was performed using the method of Hamill et al. (1999). The state of each signal was assumed to be described by two state variable $\tilde{\theta}$ and $\tilde{\omega}$ with amplitude A and frequency f

$$\tilde{\theta} = A \cos(f\theta)$$

$$\tilde{\omega} = A \sin(f\theta)$$

A phase plane was constructed with $\tilde{\theta}$ on the x-axis and $\tilde{\omega}$ on the y-axis.

$$\phi(i) = \tan^{-1} \left| \frac{\tilde{\omega}(i)}{\tilde{\theta}(i)} \right|$$

Coupling was quantified by the CRP angle θ_{CRP} , which is the difference between the phase angles of two signals

$$\theta_{CRP}(i) = |\phi_1(i) - \phi_2(i)|$$

Where ϕ_1 and ϕ_2 are the phase angles for the first and second signals, respectively.

RESULTS

In this paper, first calculate angle of lower limb joints and then calculate the angular velocity of them. With sketch the angle-angle and angle- angular velocity diagram, analysis to be perfect. Figure1, show the angel-angular velocity diagram of Hip and Knee. Figure2, show the angle-angle diagram of Knee and Hip.



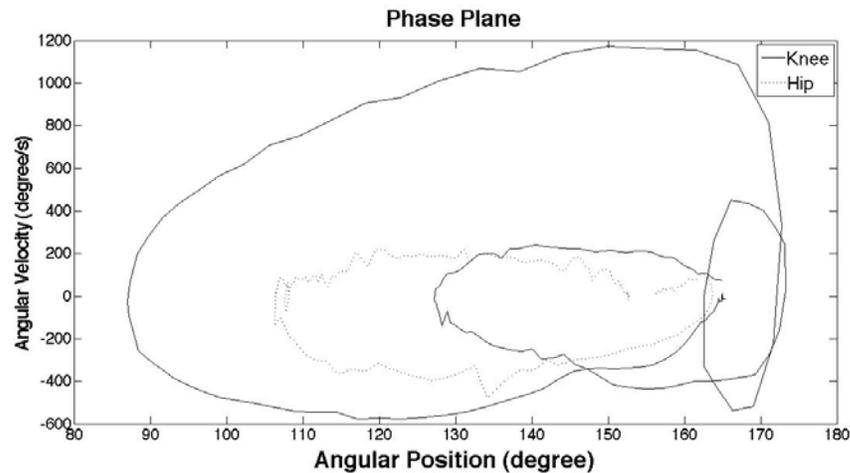


Figure 1: Angular Position-Angular Velocity of Hip and Knee joints

The pattern of inter-joint coordination of CRP and VC was compared by descriptive descriptions with in phase ($CRP = 0^\circ$ or $\pm 360^\circ$; $VC = 45^\circ$ or 225°) and out of phase ($CRP = \pm 180^\circ$; $VC = 135^\circ$ or 315°). The variability of inter-joint coordination of CRP and VC was calculated as the average standard deviation of all points on the ensemble CRP and VC curves over a Roundhouse's Taekwondo for each subject, namely the deviation phase (DP). DP values represent the turn to return variability and a lower DP value indicates a more repeatable coordination between two joints.

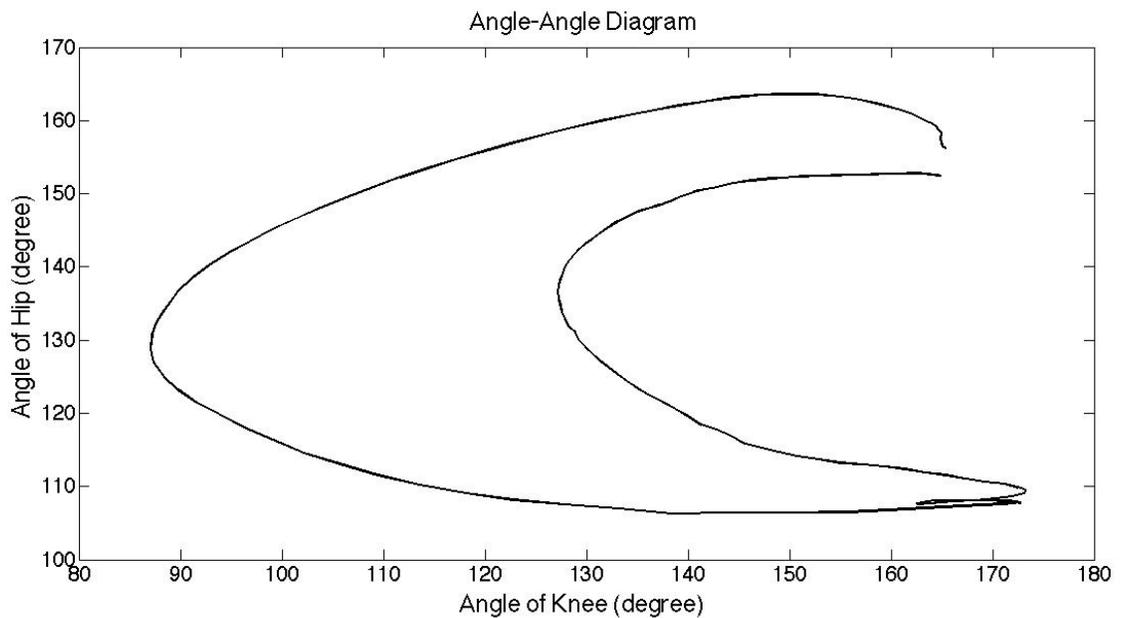


Figure 2: Angle (Knee)-Angle (Hip) Diagram

The alternations of coordination patterns between in phase and out of phase were generally in similar fashion in both techniques, except the initial contact of hip-knee coordination. While VC seemed to have greater ranges of fluctuations on the patterns than CRP, CRP seemed to have sharper inflexion points on knee-ankle inter-joint coordination than VC. The DP values for both

hip-knee and knee-ankle inter-joint coordination were similar using both techniques, respectively (Table 1).

Table 1: DP values of inter-joints coordination (degrees)

Inter Joints	CRP	VC
Hip-Knee	0.17±1.23	0.77±0.11
Knee-Angle	0.15±1.03	0.83±0.09
Angle-Hip	0.02±0.96	0.82±0.11

CONCLUSION

In figure1, the loop of the knee is larger than to hip and it shows range of motion and angular velocity range of knee are greater than hip because in Roundhouse kick's Taekwondo, knee joint play important role in attack. In addition, in figure1 and 2, all curved are loop because in this study roundhouse kick is cyclic technique and the leg of attach return to initial position. Figure2 has 2 step that relate to turn and return and consequently all from in-phase to out-phase and vice versa. In ideal state turn and return curved are unique and in this state player has full stable condition.

Our findings suggested that there was a slight difference in the pattern and variability of inter-joint coordination presented by CRP and VC. This difference may be caused by the velocity (temporal evolution) and the normalization procedure involved in calculating CRP. The coordination information obtained from CRP and VC might be comparable with cautions. However, movement velocities were found to play an important role in finding the relationships between electromyography (EMG) and the joint kinematics properties on a phase portrait. Previous studies had successfully demonstrated that the control of human movement can be validated by using phase portraits of the motions of joints or segments. Hurmuzlu et al. (1994) has suggested that observing joint positions alone may be enough to identify the movement equilibrium during walking, however, phase portraits can be considered as useful tools to monitor the properties and changes of joints over time as they directly correlated the joint angles with respect to joint velocities. Since it has been indicated that the afferent fibers in muscle receptors work most efficiently by sensing joint position and velocity and a parameter missing the temporal evolution may potentially reduce its sensitivity to the variability, CRP may provide a higher level assessment of neuromuscular control as it can define joint position and direction of motions across multiple points of a gait cycle when compared to VC. Therefore, in the dissertation, we used CRP to investigate the inter-joint coordination.

REFERENCES

1. Fitts, P.M., 1954. The information capacity of the human motor system in controlling the amplitude of movement. *Journal of Experimental Psychology* 47, 381–391.
2. Haken, H., Kelso, J.A.S., Bunz, H., 1985. A theoretical model of phase transitions in human hand movements. *Biological Cybernetics* 51, 347–356. Hamill, J., Van Emmerik, R.E.A.,
3. Heiderscheit, B.C., Li, L., 1999. A dynamical systems approach to lower extremity running injuries. *Clinical Biomechanics* 14, 297–308.





The Effects of Three Time Periods (5, 10 And 15 Seconds) Of Isometric Contraction in PNF Method on Range of Hamstring Stretch in Male Non-Athletes

BEHZAD KIA*

Department of Physical Education and Sport Science, Soushtar Branch, Islamic Azad University, Soushtar, Iran.

INTRODUCTION

It is reported that the effects of three time periods of 5, 10, and 15 seconds (1) of maximum voluntary isometric contraction (MVIC) (2) in the slow-reversal-holdrelax stretching technique. So, The purpose of this study was to investigate the effects of three time periods of 5, 10, and 15 seconds of maximum voluntary isometric contraction on hamstring flexibility in male non-athletes.

METHODS

Thirty nonathlete male student of azad univercity of 6 locale ir.iran,(Mean±SD; age, 20±2.1years; body mass, 68±6.3 kg; height, 171±5.1 cm) were randomly assigned to one of the three training groups: 5s-MVIC, 10s-MVIC, and 15s-MVIC. Measurements of hamstring stretch were performed at the beginning and at the end of six weeks of training by researcher using a goniometer and SLR test. Training program included one set of stretch training (SRHR-PNF)

* - Corresponding Author:

Behzad kia

E-mail: kiabehzad1973@gmail.com

with three repetitions per set and three sessions per week for 6 week. The training increased to three sets with three repetitions at the end of the program. At the end of training period, rate of hamstring stretch was measured using SLR test. Data were analyzed using dependent t-test and one-way ANOVA

RESULTS

It is observed that significant increases in hamstring flexibility for three groups. However, no significant difference between groups was found ($P_{0.05}$). Conclusions: according to the findings of the present study it could be concluded that a longer MVIC time dose not lead to a greater increase in flexibility.

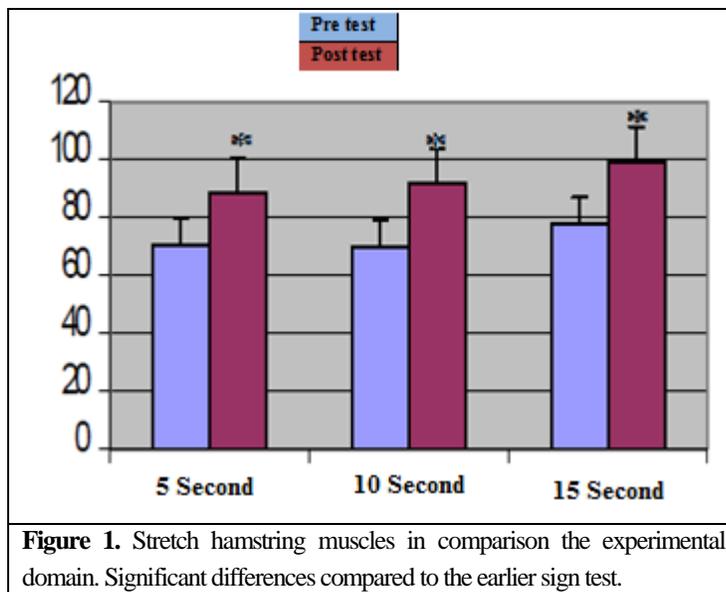


Table 1. Changes of Some data of pre-test to post test, average and percentage differences in the experimental group 1, 2 and 3.

Percentage progress	Average difference	Post-test (degree)	Pre-test (degree)	Experimental group
25/5	18	10/7 ± 88/5	9 ± 70/5	Experimental group(5 s)
31/7	22/1	13/9 ± 91/9	9/3 ± 69/8	Experimental group(10 s)
27/6	21/5	11/3 ± 99/3	7/1 ± 77/8	Experimental group(15 s)

CONCLUSION

In conclusion, according to the findings of the present study it could be concluded that a longer MVIC time (3) does not lead to a greater increase in flexibility (5).



REFERENCES

1. Davis DS, Quinn RO, Whiteman CT, Williams JD and Yaung CR. (2008). Concurrent validity of four clinical tests used to measure hamstring flexibility. *J Strength Cond Res.* 22: 583-8.
2. Feland JB, Marin HN. (2004). Effect of submaximal contraction intensity in contract-relax proprioceptive neuromuscular facilitation stretching. *Br J Sports Med.* 38: 18.
3. Feland JB, Marin HN. (2004). Effect of submaximal contraction intensity in contract-relax proprioceptive neuromuscular facilitation stretching. *Br J Sports Med.* 38: 18.
4. Marek SM, Cramer JT, Fincher AL, Massey LL, Dangelmaier SM, Purkayastha S, Fitz KA, Culbertson JY. (2005). Acute effects of static and proprioceptive neuromuscular facilitation stretching on muscle strength and power output. *J Athl Train.* 40:94-103.
5. Bonnar BP, Deivert RG, Gould TE. (2004). The relationship between isometric contraction durations during hold-relax stretching and improvement of hamstring flexibility. *J Sports Med Phys Fitness.* 44:258-61.



The Effect of Short- Term use of Cold Spray on Ankle Joint Position Sense in Professional Wrestler

¹Heydar Sadeghi, ¹Hamidreza Naserpour*, ¹Hadi Habibi

1. Department of Physical Education and Sport Science, Kharazmi University, Tehran, Iran.

INTRODUCTION

In wrestling the ankle is most frequent site for joint sprains. That involved approximately 38 percent of all wrestling injuries (Pasque and Hewett, 2000).during wrestling exercise or competition following the collision or performs various actions, uncontrolled pressure may be applied to the ankle of the wrestlers, which in some cases require medical treatment, in such situations, a common treatment technique is the use of cooling method. However, in most cases, the athlete should immediately return to practice or competition after applying the cold. Although cryotherapy is commonly used in the treatment of acute and chronic athletic injuries, the deleterious effects of limb cooling, such as decreased nerve and muscle function, slowed sensation and inhibition of normal relaxes, may put an athlete at increased risk of additional injury (Schieppati and Nardone, 1997). Reduction of proprioception receptors pulses and postural reflex responses may lead to cause abnormal situation of body and finally, increase the risk of ankle joint injury, especially during athletic activities (Lephart SM et al., 1997). The purpose of this study is the effect of a short period of Cryotherapy on ankle position sense in professional wrestlers.

METHODS

14 Professional wrestler (age 24 ± 3 years old, and weight 74.1 ± 19.2 kg) participated in this study. They all had at least 5 years training experience with provincial and national championships. All participants read and signed an approved informed consent form. Electro-goniometer (J-TECH Made in America) was used to measure the accuracy of the reproduce of the ankle joint angle and dominant limb was used for the same conditions of participant. In present study aims reproduce the angle of ankle joint, movement and angles plantar and dorsi flexion, respectively, 20 and 10° were considered. Initially, each subject was asked to move his ankle to the target angle with open eyes three times and remain for three seconds in that situation and maintaining this position in his short-term memory. Then, to eliminate visual interference during measurement of the test the eyes of participant was closed by blindfold and he was asked to move his ankle in two condition first in active and then with the move of examiner to the target angle in passive form. Error angel defines as the difference between the target angle and the angle created by the participants reproduced, regardless of whether the error was a positive or negative. Each movement was repeated three times and then average of error angles for each movement was taken as the main record. After that, the subjects medial-lateral of ankle, with distance 30 cm for 5 seconds under cold applied by using spray cooling (COLD SPRAY product of manufacturing HAGER company, made in Germany) And the test was repeated again. Inferential statistics Kolmogorov-Smirnov test was used to check the normality distribution, using a paired t- test tests to compare variables before and after cooling, with a significant level of ($p\leq 0.05$).

RESULTS

Test results are presented In Table 1. Results show that the Regeneration error after using the spray increased 0.23 and 0.29 degree respectively in active and passive dorsiflexion and it was 0.8 and 0.1 degree respectively in active and passive plantar flexion, but this increases was not statistically significant.

Table 1. Result of Pair t-test for Comparison of the Regeneration Error in Active and Passive Position

Variable Name	Pre-test	Post-test	t(13)	.P-value
Regeneration error of Active Dorsi Flexion	2.36+1.29	2.59+1.45	-0.538	0.599
Regeneration error of active Plantar Flexion	3.77+1.11	3.85+1.14	-0.176	0.863
Regeneration error of passive Dorsi Flexion	2.37+0.95	2.66+1.05	-0.707	0.492
Regeneration error of active Plantar Flexion	2.93+0.954	3.03+1.032	-0.176	0.863

* Difference is significant at the 0.05 level.



CONCLUSION

The results showed that short-term local cooling by using cold spray on ankle joint position sense of professional wrestlers is not significantly change. It appears that the use of cold spray for a short time only has an immediate effect on the skin receptors. But the muscle spindles and joint receptors as deeper receptors, which have a key role in joint position sense, are not affected that this results are corresponded with Beyranvand et al research (Beyranvand et al., 2013).

REFERENCES

1. BEYRANVAND, R., SEIDI, F., RAJABI, R. & MORADI, A. 2013. The Effects of Cupping Therapy on Biomechanical Properties in Wistar Rat Skin. *J Res Rehabil Sci* 9, 889-898. [Article in Farsi].
2. LEPHART SM, PINCIVERO DM, GIRAILO JL & FH., F. 1997. The role of proprioception in the Management and Rehabilitation of Athletic Injuries. *American Journal of Sport Medicine*, 25, 130-137.
3. PASQUE, C. B. & HEWETT, T. E. 2000. A Prospective Study of High School Wrestling Injuries. *American Journal of Sport Medicine*, 28, 509-515.
4. SCHIEPPATI, M. & NARDONE, A. 1997. Medium Latency Stretch Reflexes of Foot and Leg Muscles Analyzed by Cooling the Lower Limb in Standing Humans. *Journal of Physiology* 5.3, 691-668.





Technology of Sport Equipment Manufacturing Using Wood Composites

¹ Mahboobe Mehmandoost*, ²Abolghasem Khazaeian

1. Master of Science Wood Composites, University of Agricultural Sciences and Natural Resources, Gorgan, Iran.
2. Associate Prof., Dept. of Wood Engineering and Technology, University of Agricultural Sciences and Natural Resources, Gorgan, Iran.

INTRODUCTION

In many sport activities, there are certain tools or equipment that is needed for the game. For example, rockets are used in tennis, badminton, table tennis, and cricket (1). The use of advanced materials in sport equipments can be important and significant role in improving the performance and success of the different exercises, especially in sports such as pole-vaulting, cycling, golf and tennis types (2). The purpose of this study is to explain and suggest the necessary conditions to develop technology of manufacturing sport equipments from wood products within the country.

METHODS

In this research, in order to write theory and to consider and to introduce techniques and methods of sport equipments production, domestic and foreign articles are used in addition books also in order to enrich research literature and increase its validity, internet magazines and internal and

external sources are enjoyed to suggest the way of providing some changes related wood composites.

RESULTS

Wood materials due to special features such as lightness, isolation, being flexible, colours variety, physical and mechanical properties, biological features and the elastic property is considered to other materials, so a lot of wood sport equipments are built for all ages in order to attain the purpose of creating a skill, strength, endurance and muscle strength in people (3).

New sport equipments are made from acetylated wood. The process of manufacturing such equipments consisting of layers of wood processing by acetylating process and then their formation is like desired sport equipments, because it has exceptional properties and has utilization capacity in sports activities without breaking it (4). The below figure shows sport equipments are manufactured from acetylated wood.

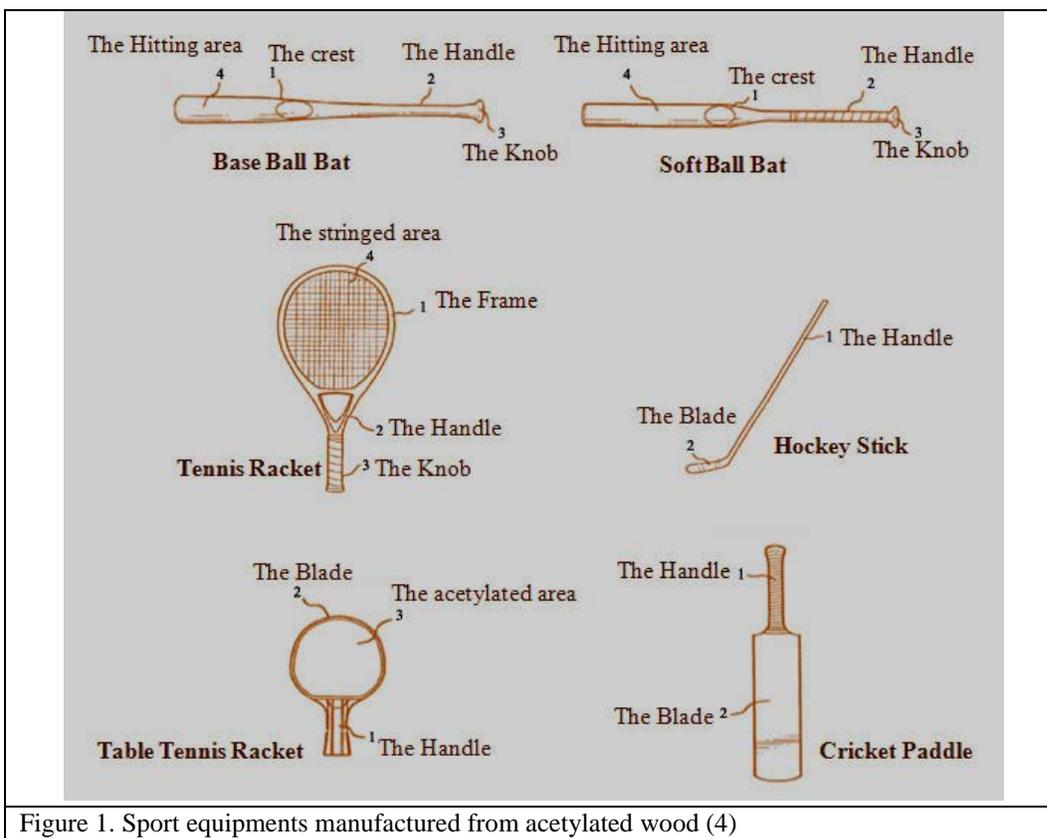


Figure 1. Sport equipments manufactured from acetylated wood (4)

CONCLUSION

The ideal design of sport equipments requires a regular and systematic performance not only to improve efficiency, but also in addition to user-friendly it needs is to be far away of the



damage. The design includes materials science, mechanical engineering and physics, also requires knowledge of anatomy, physiology and biomechanics (3). It seems the production process of sport equipments for domestic production, doesn't have in accessible and complex technology in production condition! Therefore, with regard to existing facilities, the ability to produce in country is in accordance with global standards, on the other hand, because the level of experts' knowledge to design these equipments will conform to the related federations approval.

REFERENCES

1. Ebrahimi Gh. Wood Technology. Iran Textbooks Publishing Company/Tehran; 2005. 113 pp.
2. Froes, F.H. Is the use of advanced materials in sports equipment unethical? JOM (Journals of the Minerals, Metals & Materials Society). 1997. 49 (2): 15-19.
3. Froes, F.H. and Haake S.J. Materials and science in sports.TMS (The Minerals, Metals & Materials Society). 2001. 724: 37-45.
4. Roy Bonds, F. Michel Bonds, D. Wooden sports articles and a method of manufacture. United States patent application publication. 2011. No: US 2011/0094626 A1.





Comparison of Shoulder Range of Motion during Direct Box to Boxing Bag and Shadow Kick in Amateur Boxers

¹Morteza Madadi Shad (MSc)*, ²Nader Farahpour (PhD)

1. M.Sc. Bu Ali Sina University, Hamedan, Iran.

2. Professor, Sport Biomechanics, Bu Ali Sina University, Hamedan, Iran.

INTRODUCTION

Direct forward punch at chest height is a basic and simplest skill in boxing. Beginners usually perform it in a slower manner compared to elite boxers (1). There are few different way of training this skill including shadow kick, kicking the boxing bag, and kicking a partner during a fight. Each of these training methods may activate different neuromuscular pathway resulting in a different muscle activity pattern. Previous studies have analyzed both kinematics and kinetic aspects of direct punch to a boxing bag (2-4). The differences between the above mentioned techniques on muscle activation and/or biomechanical characteristics are not well explained. The purpose of this study was to compare the shoulder range of motion during shadow punch and boxing bag punch in amateur boxers.

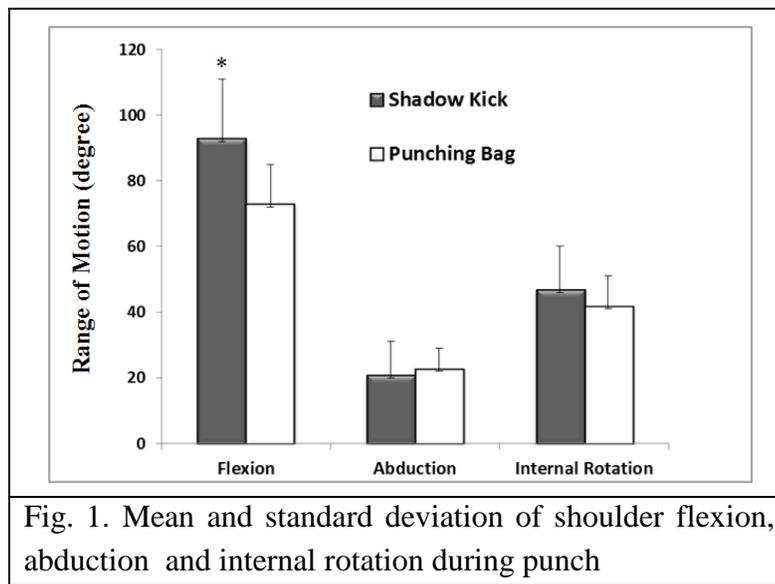
METHOD

Ten male amateur boxers participated in this experiment. All subjects were amateur and had between one to three months of experience in boxing. Subjects were excluded if they reported a history of upper extremity injury. Each subject performed six shadow punches and six punch against punching bag while his shoulder kinematics was being measured using a Vicon system with four cameras. There was a five minutes of rest between every two following punches. The

range of motion of shoulder including abduction, flexion, and axial rotation were measured. Paired sample t-test was used for statistical analysis. The significance level was set at $p < 0.05$.

RESULTS

The shoulder range of motion is illustrated in figure 1. The range of shoulder flexion on attacking arm was different between the two techniques ($p = 0.03$). Shoulder abduction and rotation was similar in the two techniques ($P > 0.05$).



CONCLUSION

The results of present study showed that punching for a virtual target, such as in shadow boxing condition, amateur boxers displayed larger shoulder flexion in the attacking arm compared to the boxing bag kick. Based on Previous studies Karateka presented higher shoulder and elbow angular velocity during punch against makiwara (1). We did not find any similar study to compare our results. In punch against punching bag antagonistic muscles are learned to control the shoulder motion to prevent the extreme range of motion for security reasons. However, other motions were similar in both techniques.

In conclusion, shadow kick differs from the boxing bag punch. Consequently they may have different muscle activation pattern.



REFERENCE

1. Vences Brito AM, Rodrigues Ferreira MA, Cortes N, Fernandes O, Pezarat-Correia P. Kinematic and electromyographic analyses of a karate punch. *Journal of Electromyography and Kinesiology*. 2011;21(6):1023-9.
2. Whiting WC, Gregor RJ, Finerman GA. Kinematic analysis of human upper extremity movements in boxing. *The American journal of sports medicine*. 1988;16(2):130-6.
3. Gallaher DM. 3D analysis of punching technique: reverse vs. lead (Gyaku tsuki vs. Oi tsuki): California State University, Chico; 2013.
- 1.4. Mack J, Stojich S, Sherman D, Dau N, Bir C, editors. Amateur boxer biomechanics and punch force. *ISBS-Conference Proceedings Archive*; 2010.





Sport Psychology





Annals
of
Sport
Applied Science



Body Image and Self-Esteem Differences According to the Role of Gender in Students of Islamic Azad universities of Tehran

¹Maisam Allahmoradi*, ²Tayebeh Zargar

1. Department of Physical Education and Sport Sciences, South Tehran Branch, Islamic Azad University, Tehran, Iran.
2. Department of Physical Education and Sport Sciences, South Tehran Branch, Islamic Azad University, Tehran, Iran.

INTRODUCTION

Body image is an image that we have created in our minds. Body image has a great impact on the psychological and internal states of a person. On the other hand self-esteem is self-respect and worth that a person performs towards her/himself (1). The prevalence of body dissatisfaction is a major concern, because it is associated with mental disorders such as: decreased self-confidence, depression, social anxiety, eating disorders and diseases related to bad body shape (2). Today, sport and physical activity as a treatment is considered more for body image disturbance (3). Exercise can reduce mental disorders and body image dissatisfaction which can be substantially preventive and therapeutic methods (4). The aim of this study was investigation the body image and self-esteem differences according to the role of gender in students of Islamic Azad universities in Tehran.

Corresponding Author:

Maisam Allahmoradi

E-mail: Maemreh@gmail.com

METHOD

According to the relation between variables, the present study is a descriptive-correlation study and according to the aim of research it is a practical research that carried out in field method. Statistical population includes students of Islamic Azad universities in Tehran studying in the 92-93 academic year in all fields and levels of education (a total of 146,000 students). The multi-stage cluster sampling was used and finally according to the Morgan table the sample size was determined at least 384. In this research demographic questionnaire, multi-dimensional body-self relations, and Alice Pope self-esteem questionnaire were applied to assess the reliability of the questionnaire the Cronbach alpha was used, for self-esteem questionnaire ($\alpha=0.83$) and for body image questionnaire ($\alpha=0.86$). According to the measurement level of variables investigated in the descriptive statistics, the data analyzed by SPSS software version 22.00. In the inferential statistics, statistical method of Pearson correlation for determining the relevance and independent t-test to assess differences between the two groups were used.

RESULTS

According to results of table 1, a significant difference was observed between body image of female and male students ($P<0.05$, $t=2.96$).

Table 1. t-test for comparison of body image of female students with male students

Variable	Gender	Mean	df	t	p
Body Image	Female	3.26	369	2.96	0.003**
	Male	3.95			

** $P<0.01$

According to the results of Table 2, no significant difference was observed between self-esteem of female and male students.

Table 2. Independent t-test to compare the self-esteem of female and male students

Variable	Gender	Mean	df	t	p
Self-Esteem	Female	3.92	369	1.79	0.074
	Male	4.01			



CONCLUSIONS

The results of research illustrated that there is positive and significant relationship between body image and self-esteem that this result is consistent with results of Asgary and Shebaky (1389) and Tabnak et al. (2007). Other results showed that there is no significant difference between self-esteem of male and female students. This result is consistent with results of Roos et al. (2000) and Kamaly and Ghafary (2009). These results indicate the positive effect of exercise on body image. Explanations for this finding can be presented: exercise and physical activities by creating better muscular balance and increase physical performance in athletes can improve their body image and by preventing lack of confidence and feelings of inadequacy which are due to little work and immobilization of muscle cause increased fat and imbalance and inappropriate body composition, and improve their body image and self-concept. All of the items mentioned above show the extraordinary importance of physical activity on body image. It seems that participation in physical activity have a mediated role in increasing self-esteem and attitudes to self. In fact, participation in physical activity increases the ability and physical fitness of the individual so this in turn will change the type of evaluation and estimation of individuals from their capabilities. This relationship has a positive cycle that leads to increased self-esteem and a more positive attitude of the body.

REFERENCES

1. Askari,P., Shabaki, R. (2010). The role of body image in the quality of life, life satisfaction, self-esteem and sex role attitudes. *Thinking and Behavior (Applied Psychology)*, 17, 9-18.
2. Cash, T.F., Novy, P.L., & Grant, J.R. (1994). Why do women exercise? Factor analysis and further validation of the reasons for exercise inventory. *Perceptual and Motor Skills*, 78, 539–544.
3. Hausenblas, H. A., & Anna Campbell. (2009). Effect of exercise intervention on body image: A meta-analysis. . *Psychology and Health*,14,780.
4. Donaghy, M. (2007). Exercise can seriously improve your mental health: Fact or fiction? *Advances in Phychology*, 9, 7688.
5. Tabak, I., Mazur, L., & Oblacinska, A. (2007). Body Mass, self-esteem and life satisfaction in adolescents aged 13-15 years. *Med Wieku Rozwoj*, 11 (3), 281-290.





The Relationship between Life Quality, General Health and Physical Activity among Old Males in Sanandaj’s Nursing Home

SamiraAliabadi¹, Shima Hesami², Parsa Aliabadi³

1. Faculty member, Department of Physical Education and Sport Sciences, Sanandaj Branch, Islamic Azad University, Sanandaj, Iran.
2. M.Sc. Student, Physical education and sport sciences, Garmsar University.Semnan, Iran.
3. Medical Student, Department of Medicine, School of Medicine, Tehran University of Medical Sciences, International Campus (TUMS-IC), Tehran, Iran.

INTRODUCTION

Aging is a critical period of human life; thus, paying attention to the issues and needs of this stage is a social necessity (1). Considering the special needs of this period, focusing on life quality and physical activity in the elderly is very urgent which mostly ignored (2) is. Today, due to the increasing life span and life expectancy indexes, the question of how spending life quality of life is discussed (3). Addressing this issue have been attracted experts and researchers in the case of elderly people. Quality of life in various social ranks, especially those who have specific physical or mental conditions is significant this situation may lead to stress (4); the present research was to investigate the relationship between life quality, general health and physical activity among older men in nursing home.

¹ . Corresponding Author:
Samira Aliabadi
Email: s.aliabadi311@hotmail.com

METHOD

The method of this study was descriptive-correlation. The populations of the study were old men in Sanandaj's Nursing Home who were 36 individuals. The survey instrument was General Health (GHQ) and Quality of Life (WHOQOL: BREF) Questionnaire. To assess the interval validity of the scale was Cronbach alpha coefficient, that the results indicated acceptable internal validity consistency and alpha coefficient were $\alpha=0.83$, $\alpha=0.87$. Also to analyze data, we used the Spearman and Pearson correlation tests using SPSS₂₀ software.

RESULTS

The results described the average quality of life and general health in the elderly active and passive in Figure 1 below.

Table1: Correlation test between life quality, general health, physical activities and sports experience

variable	General Health	sports experience	Physical activity
Life Quality	r=0.52 p=0.001	r=0.065 p=0.706	r=0.331 p=0.04
General Health		r=0.335 p=0.046	r=0.113 p=0.51

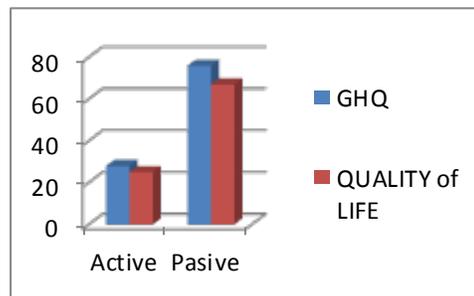


Figure 1: Describing the average quality of life and general health in the elderly

According table1, the results of research show that there was a significant relationship between quality of life and general health of the elderly men ($r=0.52$, $p=0.001$). Also, there was no significant relationship between general health and physical activities during the week ($r=0.113$, $p=0.051$). While, there is a significant relationship between quality of life and physical activity in the life of elderly men ($r=0.331$, $p=0.04$). In addition, there was a significant relationship between general health of elderly men and their sports experience in youth course ($r=0.335$, $p=0.046$), that there was no relationship between quality of life of elderly men ($r=0.065$, $p=0.706$).



CONCLUSIONS

According to the results of this research, it suggested that with development of opportunities and requirements for physical activity and sports in community and especially nursing home, we can take effective steps to improve the quality of life and general health of the elderly men. Also, we can use the specialists in sports sciences for educating and doing appropriate physical activity for elderly men in order to improve the quality of life in the final years of their life.

REFERENCES

- 1- Vahdaninia M.S., Goshtasbi A., Montazeri A., Maftoon F. Health- Related Quality of life in Elderly people: Population Survey. Payesh; 2005. 4(2): 113-120.
- 2- Lee TW, Ko IS, Lee KJ. Health promotion behaviors and quality of life among community – dwelling elderly in Korea. Int J Nurs Stud; 2005. 49(2):129-137.
- 3- Ahmadi F, Salar A, Faghihzadeh S. "Assessing Quality of life Among Elderly people in Zahedan". Hayat. 2004; 10(22): 61-67.
- 4- Hellstrom Y, Persson G, Hallbery I.R. quality of life and symptoms among older people living at home. Journal of Advanced nursing. 2004; 48: 584- 93.





The Relationship between Sources of Control and Loneliness in Disabled Athletes and Disabled Non-Athletes

¹Amir Hossein Ghorbani*, ²Hasan alikhani, ¹Javad Parhizkar Kohnehoghaz

1. PhDs of motor behavior, department of physical education, science and research branch, Islamic Azad University, Tehran, Iran
2. Assistant professor of motor behavior, department of physical education, Lahijan branch, Islamic Azad University, Lahijan, Iran

INTRODUCTION

With the appearance of the lesions and symptoms of physical weakness self-reliance of disabled people has been precarious. Recent findings suggest that exercise have close relationship with psychological conditions improvement, including emotional states and self-knowledge, and physical exercise is a proper way to achieve the proper mental conditions (1-3). The need to exercise and its health impact on people with disabilities is felt much more than healthy people.

As mentioned in the literature on loneliness: 1. Personal experience is not visible to others, 2. In general, engenders from lack of personal relationships, and 3. is an unpleasant condition.

On the other hand, one particular and important concept of ratter social learning theory is source of control. This concept has two dimensions: internal and external. People With the external sources of control believe that their success or failure are handled by external factors such as fate, luck, chance, and powerful unpredictable environmental forces, but people with internal sources of control believe that their actions and abilities determine their success or failure.

Corresponding Author:

Amir Hossein Ghorbani

E-mail: A_ghorbani1986@yahoo.com

Attarzadeh Torabi and Hossein (2005) and Sheikh et al. (2006), about the source of control and loneliness differences in female athletes and non-athletes stated that athletes and non-athletes differ in the degree of loneliness. And these differences imply less loneliness in athletes. But in the sources of control (external - internal) between two groups did not report any differences. Feyzkhademy et al. (2010) also were found significant differences between team and individual sport athletes (4).

METHOD

120 Participant (60 disabled athletes and 60 non-athletes with disabilities) were randomly selected. They completed Lonson source of control Questionnaires (IPC) and loneliness (UCLA). And after considering the assumptions of parametric statistical data collected using multivariate analysis of variance, and post hoc test and Pearson correlation analysis was used.

RESULTS

Test results of variance multivariate analysis showed that there were significant differences between source of control and loneliness in disabled Participants ($p=0.876$; $F = 5.50$; $df = 115$; $sig = 0.001$). The post hoc test showed that the source of control is significantly different athletes and non-athletes ($P=0.008$), Between external source of control (tendency to powerful people) ($P = 0.028$) and loneliness ($P=0.002$), there is a significant difference between the two groups. Pearson correlation test results showed that the between loneliness and internal source of control there is a significant negative correlation in athletes disabled ($r = -0.337$; $p=0.002$). Other relationships variables can be seen in the below table.

Table 1. Pearson correlation test results to determine the relationship between loneliness and locus of control in the two groups.

		Internal source of control (I)		External source of control (P)		External source of control (C)	
		Athletic	Non-Athletic	Athletic	Non-Athletic	Athletic	Non-Athletic
loneliness	Groups						
	correlation coefficient	-0.337	0.120	0.226	0.078	0.027	0.352
	Sig	0.002**	0.194	0.044*	0.492	0.810	0.001**

CONCLUSIONS

The results show significant differences in source of control between athletes and non-athletes disabled. This difference indicates that more disabled athletes have internal source of control.



These findings are consistent With the result of feyz Khademi et al (2010), and inconsistent with the results of Shaykh et al. (2006) & Attarzadeh hosseini (2005).

Also results showed that the in the two groups there was a significant difference in the rate of loneliness. There are significant differences between athletes and non-the disabled in loneliness that supports beneficial effect of psychosocial sporting activities. According to descriptive statistics, we can conclude that the athletes compared to non-athletes are less likely to feel lonely, That these results is consistent with the results of Grace Khademi et al. (2010), Turabi, Attarzadeh hosseini (2005) and Sheikh et al. (2006).

Correlation test results showed that the between loneliness and internal source of control in athletes there is a significant negative correlation. These findings with respect to the exercise theoretical foundations were not unexpected. Because results have shown that people with physical activity and exercise are less likely to suffer from loneliness and non-athlete group had a mean feeling more alone than other group. These results are consistent with findings by Sheikh et al (2006) and Turabi and Attarzadeh hosseini (2004) is consistent.

The results of this study, revealed the role of exercise in modulating the structure of personality and mental health and will be identified the importance of such studies for coaches and officials. Recent findings suggest that exercise improves psychological conditions such as emotional states and self-recognition, feeling close and physical exercise is proper way for achieving good mental Conditions.

REFERENCES

- 1- Schmake, J., Shea, J. D., Monfries M.M & GrothMarnat, G. Loneliness and life satisfaction in Japan and Australia. *The Journal of Psychology*; 1992. 127: 65-71.
- 2- Javadi M, Kadivar P. *Personality psychology*. 4th edition. Rasapublication. 1995.
- 3- Goldberg, G., Shephard, R.J. Personality profile of disabled individual in relations to physical activity pattern. *Journal of Sport Medicine and Physical Fitness*; 1982. 22: 447-484.
- 4- FeyzKhademi, A., Azimi, Sh., Hajipoor, S., Jalalian M. Loneliness and Source of Control (Internal-External) in Young Male Athletes in Team and Individual Sports in Kermanshah City. *Journal of Social Sciences*; 2010. 14: 272-277.
- 5- Ghasemi, abdollah., Momeni, Maryam., Khaneh, Hamid Reza. The comparison body imagery disable athletes with disables and undisable non-athletes male. *Rehabilitation journal*, 2009. 10 (4): 26-31.



The Study of Teachers’ Viewpoints about Responsibility Levels in Athlete and Non-Athlete Students

¹Samaneh Nazari*, ¹Rahim Ramzaninezhad, ¹Mina Mallaei

1. Faculty of Physical Education and Sport Sciences, Guilan University, Rasht, Iran

INTRODUCTION

The purpose of the present research was to study of physical education teachers’ viewpoints about responsibility levels in athlete and non-athlete male and female students of 3rd grade middle schools of the city of Rasht in physical education class. To determine the level of responsibility of the students in PE class has been used from Hellison’s model. This model uses sport and physical activity as a valuable instrument to teach and assess responsibility (1, 2). Because of its widespread application and practical appeal, As well as, in our country So far no research in physical education has been conducted on this specific model, there is need for continuing development and study of this particular model and it`s level responsibility.

METHOD

According to the Morgan table and using random cluster sampling method, 400 students were selected with low probability as statistical sample from the total population study (6882 person). 357 persons (90%) participated in the study. Tools of research was used a standard questionnaire responsibility (Wright and colleagues (2008)) that included questions for measuring the levels of

Corresponding Author:

Samaneh Nazari

E-mail: Email: sama_nazari89@yahoo.com

a responsibility for students. Validity of this questionnaire were reviewed by 15 prominent science experts and then approved. Also, the overall reliability coefficient was calculated through Cronbach alpha method ($\alpha = 0/86$). According to being non-normal distribution of data, it was used U-Mann Whitney test ($P \leq 0.05$).

RESULTS

Data analyzing by using U-Mann Whitney in significant level of $P \leq 0.05$ indicated that from physical education teachers' viewpoints, athlete students had higher responsibility in all responsibility levels. Nevertheless, the results indicated that level of athlete students' irresponsibility was lower than non-athlete students (table 1, diagram1).

Table1. The comparison of responsibility levels in athlete and non-athlete students from physical education teachers' viewpoints

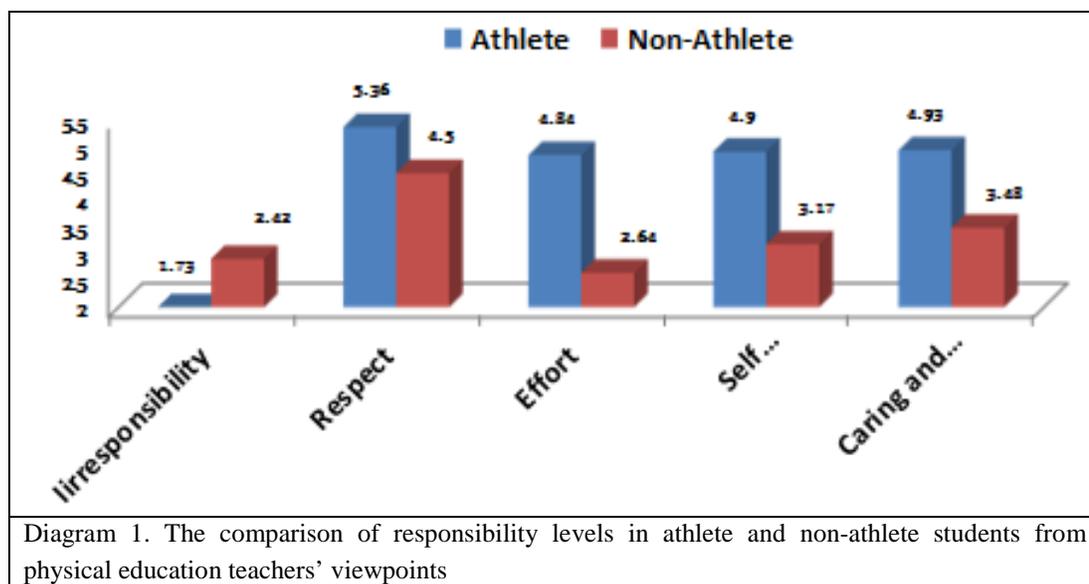
U-Man Whitney tests		Standard Deviation	Mean	Group	responsibility levels
Level of Significance	calculated-z				
0/001*	-11/005	0/77	1/73	athlete	Irresponsibility
		0/94	2/42	non-athlete	
0/001*	-7/036	0/81	5/36	athlete	Respect
		1/24	4/50	non-athlete	
0/001*	-14/518	0/88	4/84	athlete	Effort
		0/99	2/64	non-athlete	
0/001*	-13/718	0/76	4/90	athlete	Self responsibility
		0/98	3/17	non-athlete	
0/001*	-12/349	0/81	4/93	athlete	Caring and Helping to others
		0/93	3/48	non-athlete	

* significant at the level of $P \leq 0/05$

CONCLUSIONS

The results indicate that participation in sport activities can be important factor in developing young students' responsibility (3). In fact, participation in sport activities can promote responsibility in personal activities and social skills (4).



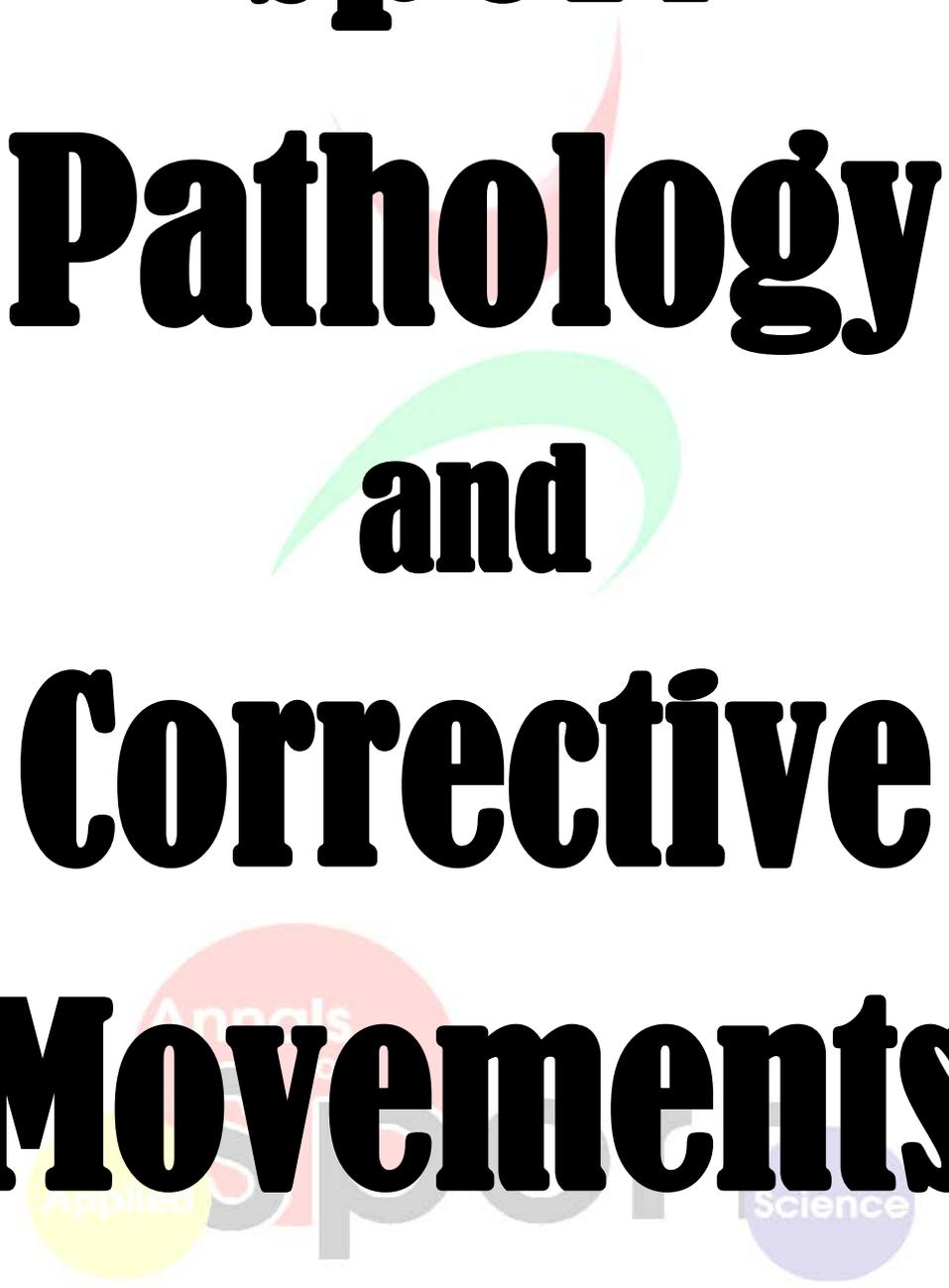


REFERENCES

1. Andre MH. Analyzing the learning of the taking personal and social responsibility model within a new physical education undergraduate degree program in El Salvador. 2010.
2. Fletcher TS. Elementary Physical Education: Fitness Sessions or Whole-Child Development? *CJNSE/ RCJCÉ*. 2009;2(1).
3. Martinek T, Schilling T, Johnson D. Transferring personal and social responsibility of underserved youth to the classroom. *The Urban Review*. 2001; 33(1):29-45.
4. Metzler, M. (2007). "Looking for (and finding) modern day pioneers in kinesiology and physical education in higher education". *Quest*, 59(3), 288-297.



**Sport
Pathology
and
Corrective
Movements**





Annals
of
Sport
Applied Science



Description of Operational Injury with Upper Limbs Structure in Female Athletes of Sanandaj in volleyball, basketball and Futsal Premiere League

¹Shohre Sheikhattari, ²Samira Aliabadi, ³Shirin Rahimi

1. M.A of corrective exercise, Lecturer, Department of Physical Education and Sport Sciences, Sanandaj Branch, Islamic Azad University, Sanandaj,Iran
2. Faculty member, Department of Physical Education and Sport Sciences, Sanandaj Branch, Islamic Azad University, Sanandaj, Iran.
3. M.A of corrective exercise, lecturer, department of Physical Education and sport sciences, Sanandaj Branch, Islamic Azad University, Sanandaj,Iran

INTRODUCTION

Injury is regarded as an unavoidable potential threat in the sport events, and it decrease the athlete position especially in professional level sometimes it is impossible to explain and interpret the injury condition. Mostly, it has clear and explicit pattern

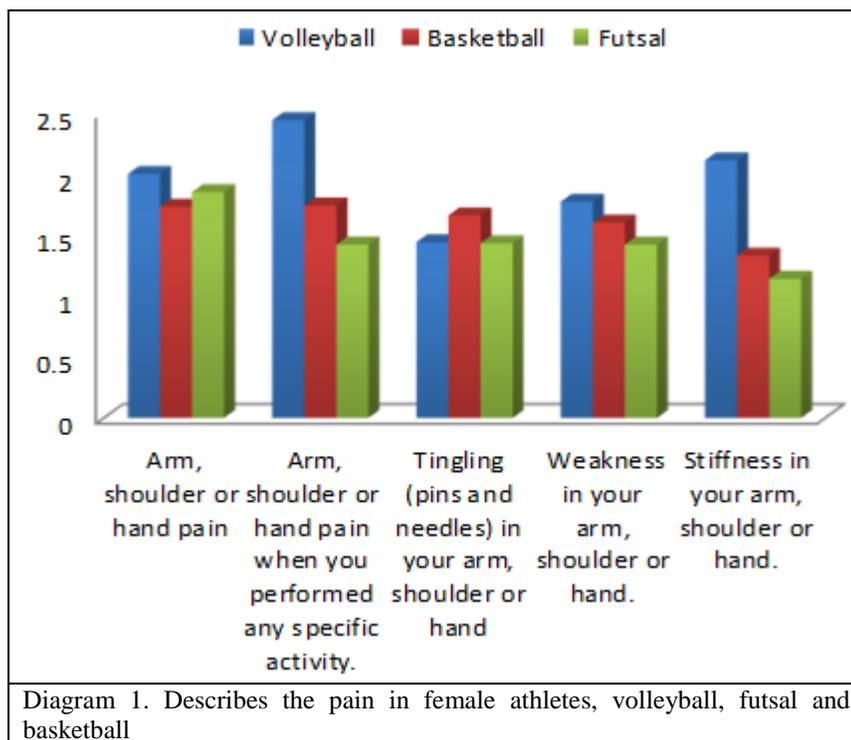
When there is an explicit pattern of injury condition, in reducing the injury risk some opportunities appear. For the athletes who are active in champion ship level, it is necessary both their injury is diagnosed and recovered by physician, Because the more rapid the recovery take places, the less time is in need to athletes return to their usual practices. so, recognizing the injury condition in each activity and also, finding the comparison and similarity of applied organs can provide the suitable background to give impressive suggestion in to enhance the harmful techniques and consider the primary principles of exercise(1).Thus the research study the research study the rate of operational injury with upper limbs structure in female athletes of Sanandaj in volleyball, basketball and futsal premiere league.

METHOD

The research methodology is descriptive measurement and applicable. The research statistical population consists of the female athletes of Sanandaj played in volleyball, basketball and futsal leagues. Among them, 23 accompanied the researchers. The questionnaire was measured with DASH standard in which in 30 evaluate. The range of the injury with upper limbs structure in various situation. Data was analyzed with descriptive statistics including the mean, Standard deviation, diagram and deductive statistics including T-test and two independent groups.

RESULTS

The results show the total mean core from evaluating the injury of hand T shoulder of female athletes in volleyball ($m=20.55\pm 2.26$), basketball ($m=18.27\pm 1.92$) and futsal ($m=34.58\pm 1.68$) were obtained. The result of evaluating the hand, and shoulder injury in a special activity is depicted in diagram 1.



The results of the comparison of the final evaluation inability hand, arm and shoulder in the female athlete in Table 1 below. As shown in table 1, There is not any significant differences between hand and shoulder injury in female athletes. But there is significant difference between hand and shoulder injury in female athletes in volleyball – football ($t=6.014, p=0.001$) and basketball ($t=10.167, p=0.001$).



Table 1. Comparison of the final assessment inability hands, arms and shoulders in female athletes

Group	t	df	p
Volleyball-Basketball	1.93	22	0.069
Volleyball-Footsal	6.014	13	0.001
Basketball-Football	10.167	19	0.001

CONCLUSIONS

The result show the operational injury with upper limbs structure in futsal female athletes is more than basketball player and volleyball player and there is significant difference between with upper limb in female athletes, Due to the fact the futsal player apply their upper limbs more than other athletes and the rate of their hand application is less than volleyball player and basketball player, it seem they should strengthen. Foot muscles and warming lower limbs. Low attention to upper limbs in warming and body building program in these athletes increase the operational injury in their upper limb. While these athletes apply their hand less than other athletes in two other fields. Because their applicable limb is their feet regarding to the results Coaches need to warm upper bod. In addition to lower extremity note Fitness plan for strengthening the upper body mind. Cooling of the upper limb Involvement and lower limbs as well as in the.

REFERENCES

1. Sadeghi H, Malek Mohammadi M . The relationship between operational injuries with upper limbs structure in Volleyball players of premiere league's in Iran. *J Med Sport*. 2008; 2(3):71-81
2. Murphy, D.F, Connolly, D.A.J. and Beynon, B.D. (2003). "The risk factors for lower extremity injury a review of literature". *British Journal of Sports Medicine*. 37: 13-29.
3. Aagaard, H. and Jorgensen, U. (1996). "Injuries in elite volleyball". *Scand J Med Sci sports*. 6(2):PP: 228-232.
4. Bahr, R. and Bahr. I.A. (1997). "Incidence of acute volleyball injuries: a prospective cohort study of injury mechanisms and risk factors". *Scand J Med Sci Sport*. 7(3): PP: 166-171.
5. Verhagen, E.A.L.M. vander Beek, A.J. Bouter I, L.M. Bahr, R.M. and Mechelen, W. (2004). "A one season prospective cohort study of volleyball injuries". *Br J Sports Med*. 38(4): PP: 477-481.
6. Watkins, J. and Green, B.N. (1992). "Volleyball injuries: a survey of injuries of Scottish national league male players". *Br J Sports Med*. 26(3): PP: 135-137.
7. Knobloch, K., Rossner, D., Jagodzinski, M., Zeichen, J. Gossling, T., MartinSchmitt, S., Richter, M. and Krettek, C. (2005). Prevention of school sport injuries—an analysis of Ballsports with 2234 injuries. *Sport verletz Sports chaden*. 19: 82-88.
8. Faude, O., Junge, A., Kindermann, W. and Dvorak, J. (2005). "Injuries in female soccer players". *The American Journal of Sports Medicine*. 39: 3-9.
9. Limdenfeld, T.,Schmitt,D., Hendy, M., Mangine, R. and Noyes, F. (1994). "Incidence of injury in indoor Soccer". *Am J Sports Med*. 22:364-371.





The Effect of Corrective Exercises on Uneven Shoulder Degree of Tehran Female Students

¹Elahe Fadaee, ²Habib Zarei*

1. MSc, Corrective Exercises, University of Tehran, Tehran, Iran
2. MSc, Sports Injuries, University of Tehran, Tehran, Iran

INTRODUCTION

Understanding deformity and corrective exercise is a branch of physical education which seeks to reform and fix the muscular, organic and coordination and balance weaknesses and deformities using exercise and precise programs. Examination and evaluation of shoulder scapula show that uneven shoulder is the most common postural deformity, and it is due to the incompetence of the upper trapezoid muscle. The muscles in the drop shoulders such as homboids, levator scapula, and sternocleidomastoid weaken and pectoralis minor, subclavius muscle become shorter. Despite of valuable researches in this area, there are just few studies investigating shoulder deformity separately. For example, Hosnood et al. (1390) examined the effect of 8-week regular corrective exercise on skeletal-muscular deformity in 160 girl students ranging from 12 to 14 years old in Khorramabad, and reported significant reduction of uneven shoulder degree after participating in corrective training sessions (3). Such conclusion can be seen in other studies as well (2,1,4).because of few studies in this area and lack of training intervention in Tehran schools, the present study aims to examine the effect of 4-week corrective exercises on the uneven shoulder degree in girl student in Tehran during education year of 93-94.

Corresponding Author:

Elahe Fadaee

E-mail: Fadaee_Elahe@yahoo.com

METHOD

The statistical population included all student in Tehran during education year 92-93 among which 37 student from region 12 schools with mean age of 14.05 ± 1.02 , mean height of 1.56 ± 6.34 and mean weight of 52.04 ± 7.12 participated in this study. Uneven shoulder degree was measured by goniometer. The validity of the device is 0.95 and reliability is 0.91. Individuals with uneven shoulder degree less than 4 and history of Fracture, dislocation, and surgery [of shoulder, clavicle, scapula or ribs and structural scoliosis that may have cause them structural uneven shoulder had removed from the study. Selected participants undergo a 4-week training program, 3 sessions a week including warm-up and stretching and dynamic movements for shoulder scapula muscles for 15 minutes and then specific training for increasing flexibility, strength and Proprioception. The time spend for the exercise was about 60-70 minutes in addition to 10-minute cold-down at the end. SPSS software version 16 and paired T test was used for analyzing the data. Significant level was taken as 95%, $\alpha \leq 0.05$.



RESULTS

The results show that exercise caused a significant decrease in the average degree of uneven shoulders. It indicates significant difference ($p=0.000$) in uneven shoulder degree before and after the intervention. The table below shows mean, standard deviation and level of significance before and after intervention.

	Mean \pm SD	t	df	p
Pre-Test	4.71 \pm 0.51	22.12	36	0.00
Post-Test	2.23 \pm 0.73			



CONCLUSIONS

Performing Corrective exercise cause changes in skeletal muscles including increased total contractile protein particularly in Myosin fibers, an increase in the amount and strength of connective tissue, tendons, ligaments, increased capillary density in muscle fiber, increasing the number of fibers as the result of longitudinal muscle fibers division. These changes cause increased muscular strength and endurance and it seems that strength exercise influences the length of muscular tendons, makes different skeletal parts move, and ligaments be stable and standing. On the other hand, stretching exercises act as coordinators of agonist and antagonist muscles(5). So this exercises increase the length of muscles in the shorten side and eventually reduce deformity degree. The results of the present study show 4-week corrective exercise improves the degree of uneven shoulder in girl students which is in consistent with previous studies.

REFERENCES

1. Mahmoodi F, Sahib Zamani M, Sharifian E, Sharifi H. The Effect of corrective exewrcises on pain and uneven sholder degree. *Journal of Sport Rehabilitation*. 1392; 9-1(2) 1. Epud 1392/01/01
2. Carter ND, Khan KM, McKay HA, Petit MA, Waterman C, Heinonen A, et al, community base exercise program reduce risk factors for falls in 65 to 75 years old women whit osteoporosis, randomize control trial, *CMAJ*. 2002; 167(9): 92-104. Epud 2002/01/01
3. Hasanvand B. The effect of regular corrective exercise on muscloskeletal deformity on students KHORAM ABAD city. *Journal Lorestan University of Medical Sciences*. 1390; 13(1). Epud 1390/01/01
4. Mahdavinejad R, investigation of exercise and motional activities on functional deformities corrective of spinsl column in junior student of Tehran [Msc thesis], Tehran tarbiat modares university. 2008; p- 3- 21 (in Persian). Epude 200/01/01
5. Shondi N, Shahrejerdi SH, Heydarpoor R, Sheykh hosseini R. Effect of 7weeks corrective exercise on kyphosis student with Hayper kyphosis. *SHAHREKORD University of Medical Sciences*. 1390; 13(4): 42-50. Epud 1390/01/01.





Exercise, Training

and Health

Journal
of
Sport
Applied Science



Annals
of
Sport
Applied Science



Are Morning Exercise Training Programs Effective on Physical Fitness of Rural and Urban Students?

¹ Narges Aliniya*, ¹ Zahra Hojatti

1. Department of Physical Education and Sport Sciences, Rasht Branch, Islamic Azad University, Rasht, Iran.

INTRODUCTION

The purpose of this research was to analyze the effects of an 8-week morning training program on physical fitness factors of urban and rural students.

METHOD

In the 92-93 school year, samples were chosen from elementary female students of the city of Astara (fourth, fifth and six grade) out of 2 urban schools and 2 rural schools. Before starting the training program, in the same condition physical fitness tests were taken from both groups. Then, students participated in a special training program; at the end, physical fitness tests were repeated.

Corresponding Author:

Narges Aliniya

E-mail: naliniya@yahoo.com

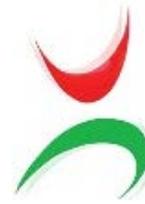
RESULTS

The results of the correlated t-test showed that effectiveness of morning programs on a number of physical fitness factors (cardio-respiratory endurance, muscles of the shoulder girdle endurance, agility, speed, explosive power, flexibility) were significant ($p>0.05$), but the influence of other factors (abdominal muscle endurance, B.M.I) were not significant ($p<0.05$).

CONCLUSIONS

Morning training for 8 weeks is effective on some of students' physical fitness factors.





Assessing Demographic Characteristics and Main Reasons for not Participating in Sport Activities within Pregnant Women Referring to Health Centers in Gorgan

Fatemeh Islami*

Department of Physical Education, Golestan University, Gorgan, Iran.

INTRODUCTION

Pregnancy is the most interesting and stressful times in a woman's life. One of the important questions in this time is the question of the relationship between pregnancy and exercise, other than doing daily chores. Research indicates that the majorities of pregnant women are elusive from physical activity, and because it is early pregnancy nausea, fatigue, discomfort during physical activity and lack of sufficient time to consider the limits of sporting activities. Usually one of the factors hindering physical activity for pregnant women are false beliefs that they believe exercise adversely affects the health of the fetus. While the mother and baby stay healthy, it requires knowledge about the type and manner of exercising during pregnancy. On the other hand, the first step in this direction, cognitive, behavioral patterns causes pregnant women's lack of exercise during pregnancy.

Corresponding Author:
Fatemeh Islami
E-mail: f.eslami@gu.ac.ir

METHOD

The current study is a descriptive-analytical study using field research design. The population includes the healthy pregnant women visiting Gorgan's health centers during the year 2013 (2500 individuals). The non-random cluster sampling based on objective was conducted with proportional allocation (248 individuals). The research tools include the researcher-made questionnaire consisting of two parts: 1) Questionnaire of demographic characteristics and 2) the questionnaire of main reasons for not participating in the sport activities in pregnancy. The validity of the questionnaires were verified by a number of academics and the reliability was verified by Cronbach alpha coefficient (0.700) was calculated. Data collection tools include interviewing with pregnant women by midwives and trained health workers. The data was analyzed using both descriptive and inferential statistics (Independent-Samples T Test, One- Way ANOVA, and Pearson and Spearman tests).

RESULTS

50.4 percent of the participants did not participate in physical activities during pregnancy. Fear of harm to the fetus was the main reason for not participating in the sport activities (table1). There was no significant relationship ($P \geq 0.05$) between the reasons for not participating in the sport activities and demographic variables including age, education level of the individual and the spouse, number of pregnancies, abortion, successful pregnancies, delivery and type of delivery (natural or cesarean). There were significant differences between the reasons for not participating in the sport activities and ethnicity but there was no significant difference between the reasons for not participating in the sport activities and other variables including the job (individual and their spouse). There was no a statistically significant difference between the mean scores of the reasons for not participating in the sport activities and location and type of referral health centers.

Table 1. why not participating in sports during pregnancy?

main reasons for not participating in the sport activities	Frequency	Percent of Frequency
Fear of harm to the fetus	33	31.1
Prohibition of medical and sports activity	21	20
Lack of awareness of the benefits of exercise in pregnancy	13	12.4
Fear of premature labor	13	12.3
Lack of proper training on how to perform the type of exercise in pregnancy	12	11.3
Lack of time	11	10.5
Lack of motivation	10	9.5
Fear of causing fetal growth disorder	8	7.6
Friends advised to reduce physical activity	8	7.6
Lack of recommendation from the doctor and midwife	7	6.7
The lack of sports facilities	7	6.7
The large size of the abdomen	6	5.7
Pregnancy-related depression	1	0.9



CONCLUSIONS

Fear of harm to the fetus was the main reason for not participating in the sport activities (31.1%). Ribeiro and Milan (2011) (3) noted barriers to exercise during pregnancy such as not having enough time (8/55 percent), feeling tired (18.6%), discomfort and convenience (14.2 %), disliking sports (12.4%) and lack of adequate information (1.7%), and fear of injury (1.3%). Hegaard, et al. (2010) (4) noted fear of harm or fear of harm to the fetus in pregnant women was the main reason for not participating in the sport activities especially in people who have had abortion themselves or their friends. Weir and colleagues (2010) (5) divided reasons for not participating in the sport activities in two categories: motivation to contribute to both intrinsic (physical and mental) and extrinsic motivation (work, family, time, and environment). A problem associated with pregnancy such as disease, lack of energy, lack of comfort due to the large size of the abdomen and weight gain, lack of confidence, enthusiasm and potential dangers of the sport of issues related to the inner motivation are reasons for not participating in sport activities. Lack of time, lack of proper exercise classes for pregnant women, weather, financial problems and lack of exercise are important factors motivating foreign midwives to recommend exercise barriers. This is where the need to educate and raise awareness of women and encouraging them to exercise and athletic performance more than ever is seriously felt. The author recommends that researchers and health care professionals pregnancy and behavior in an effort to increase women's sports, women's beliefs about exercise as a framework for designing intervention programs.

REFERENCES

- 1- Downs D, Hausenblas H .Women's Exercise Beliefs and Behavior during pregnancy and postpartum. *J Midwif Women's health* ,2004;49:38-14 .
- 2- Abedzadeh M., Taebi M., Sadat Z., Saberi F., Knowledge and Performance of Pregnant Women Referring to Shabihkhani Hospital on Exercise During Pregnancy and Postpartum Periods. *Jahrom Medical Journal* : Winter; 2011, Volume 8, Number 4, Page 43 To 48.
- 3- Ribeiro, C and Milanez, H. Knowledge, attitude and practice of women in Campinas, So Paulo, Brazil with respect to physical exercise in pregnancy: a descriptive study.*Reproductive Health*, 2011; 8:31:1-7.
- 4- Hegaard, H. Kjaergaard, H. Damm, P. Petersson1, K and Dykes1,A. Experiences of physical activity during pregnancy in Danish nulliparous women with a physically active life before pregnancy. A qualitative study. *BMC Pregnancy and Childbirth*, 2010;10:33; 1-10.
- 5- Weir, Z. Bush, B. Robson, S. Parlin, C. Rankin1, J and Bell, R. R Physical activity in pregnancy: a qualitative study of the beliefs of overweight and obese pregnant women. *BMC Pregnancy and Childbirth*, 2010;10:18: 1-7.



