



Transilvania
University
of Brasov

FACULTY OF PHYSICAL EDUCATION
AND MOUNTAIN SPORTS



YOUTH IN THE PERSPECTIVE OF THE OLYMPIC MOVEMENT

International Scientific Conference
March 9-11, 2023 - Braşov, Romania

Organizer of this scientific event:

Faculty of Physical Education and Mountain Sports, Transilvania University of Brasov, Romania,
in collaboration with The National Institute for Sport Research, Romania and YOUTH CHARTER, UK

YPOM 2023

IMPORTANT DATES

The registration deadline for participants and for submitting the Abstract – February 28, 2023.

(It must contain at most 200 words and 3-5 keywords. It will be written in Calibri, Size 12, Justified);

Deadline for submitting scientific Full-text articles – March 15, 2023.

The ABSTRACT will be sent by the previously mentioned date to the email address:

ypom@unitbv.ro

SECTIONS

- ✓ The current Olympic movement
- ✓ Young people sports performance
- ✓ Physical education and sport for all
- ✓ Formal and non-formal motor activities
- ✓ Orientations and current trends in Kinetotherapy

PUBLICATION

The scientific (full-text) articles that will be accepted will be published in:

A. The Bulletin of Transilvania University of Brasov, Series IX – Sciences of Human Kinetics (NO FEE). This scientific journal is covered/indexed in: EBSCO, ERIH Plus, ProQuest, DOAJ, CrossRef, EZD, WCOSJ, WordCat.

They are accepted max. 2 papers which must fit into the topic session. For the publication in the Bulletin of the Transilvania University will be sending: abstract, keywords, and full text in English, max.8 pages, following the indications of template.

Template and information:

https://webbut.unitbv.ro/index.php/Series_IX

B. Behavioral Sciences - Special Issue "The Impact of Sustainable Technologies in Physical Education and Sport Performance" (1400 CHF untill 31 december 2022, 1800 CHF)

https://www.mdpi.com/journal/behavsci/special_issues/51H9A81635

TERMS OF THE POSTER DRAFTING

The poster must have the size of 100/70 cm. The option for poster presentation will be communicated when you send the abstract.

PARTICIPATION FEE

The conference fee:

- 250 lei (50 euros) / paper; 350 lei (70 euros) / two papers
- 200 lei (40 euros) / paper, 300 lei (60 euros) / two papers for doctoral and master students (only as first author).

The conference fee covers technical facilities, the conference map, the social evening (for the primary author) and participation in the conference activities (plenary presentations, workshop, and poster session).

More information:

<https://sport.unitbv.ro/ro/cercetare/conferinta.html>

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YPOM 2023

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March 9-11, 2023

International scientific conference:

YOUTH IN THE PERSPECTIVE OF THE OLYMPIC MOVEMENT

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YPOM 2023

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March 9-11, 2023

International scientific conference:

YOUTH IN THE PERSPECTIVE OF THE OLYMPIC MOVEMENT

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Ioan TURCU, Assoc. Prof. PhD

President of the organizing committee

Dragoş Ioan TOHĂNEAN, Assoc. Prof. PhD

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Mountain Sports, Transilvania
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YPOM 2023

Keynote SPEAKERS

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International scientific conference:

YOUTH IN THE PERSPECTIVE OF THE OLYMPIC MOVEMENT

Giovanni Di Cola, PhD

Special Advisor to Deputy Director General for Field Operations and Partnerships,
International Labor Organization, Switzerland

Paulo Rocha, Prof. PhD

Head of Sports for All Division, Sport Department,
National Sport for All Program, Portugal

Leonardo Alexandre Peyré-Tartaruga, Assoc. Prof. PhD

School of Physical Education, Physical Therapy and Dance
Universidade Federal do Rio Grande do Sul, Brazil

Michael Michaelides, PhD

Scientific Director of Cyprus Sports Medicine & Research,
Center at Cyprus Sports Organization Cyprus

Vassilios Panoutsakopoulos, PhD, Special Teaching Staff

Biomechanics Laboratory, Department of Physical Education and Sports Science
Aristotle University of Thessaloniki, Greece

Michal Krzysztofik, Assist. Hab. PhD

The Jerzy Kukuczka Academy of Physical Education,
Institute of Sport Science, Katowice, Poland

Peter Sagat, Assist. PhD

Director - Head of the Health and Physical Education Department,
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**TRANSILVANIA UNIVERSITY FROM BRASOV
FACULTY OF PHYSICAL EDUCATION AND MOUNTAIN SPORTS**



PROGRAM

International Scientific Conference

**YOUTH IN THE PERSPECTIVE OF THE OLYMPIC
MOVEMENT**

March, 09-11, 2023

Brasov, Romania

CONFERENCE SCHEDULE

Thursday, March 09, 2023 – University auditorium

11:00 – Guests arrival and accommodation

13:30 – Coffee break and snack

14:00 – Conference opening works

Chairman of the Conference

Mr. Assoc. Prof. **Ioan Turcu**, PhD – Dean Faculty of Physical Education and Mountain Sports

Official from Transilvania University of Brasov – **Rector/ Vice-rector**;

Mr. **Allen Coliban** – Mayor of the city of Brasov;

Mrs. Prof. **Mercedes Valdés Pedroso**, PhD – First Vice Chancellor in University of Sciences of Physical Culture and Sport "Manuel Fajardo" Havana, Cuba;

Mr. **Radu Bidiugan**, PhD – Director of the National Sports Research Institute, Romania;

Mr. Prof. **Geoff Thompson**, PhD – Founder YOUTH CHARTER, UK (online)

Mrs. Prof. **Alina Moanță**, PhD – President of the Forum of Deans of Physical Education and Sport in Romania;

Mr. **Giovanni Di Cola**, PhD – Special Advisor to Deputy Director General for Field Operations and Partnerships, International Labor Organization, Switzerland;

Mr. Prof. **Leon Gomboș**, PhD – Dean, Faculty of Physical Education and Sport, Cluj Napoca, Romania;

Mr. Prof. **Paulo Rocha**, PhD - Head of Sports for All Division, Sport Department, National Sport for All Program, Portugal;

Official from Brasov County School Inspectorate - **General/Specialist Inspector**;

Mr. Assoc. Prof. **Leonardo Alexandre Peyré-Tartaruga**, PhD - School of Physical Education, Physical Therapy and Dance University Federal do Rio Grande do Sul, Brazil;

Mr. **Michael Michaelides**, PhD - Scientific Director of Cyprus Sports Medicine & Research, Center at Cyprus Sports Organization Cyprus;

Mr. **Alexandru Dedu** - General Manager CSM Corona Braşov, Romania;

Mr. Assist. **Peter Sagat**, PhD, Director - Head of the Health and Physical Education Department, Prince Sultan University, Riyadh, Saudi Arabia;

Mr. Assist. Hab. **Michał Krzysztofik**, PhD - The Jerzy Kukuczka Academy of Physical Education, Institute of Sport Science, Katowice, Poland;

Mrs. **Daciana Drăcea**, Director - High School with Sports Program, Brasov, Romania;

Mr. **Vassilios Panoutsakopoulos**, PhD, Special Teaching Staff Biomechanics Laboratory, Department of Physical Education and Sports Science Aristotle University of Thessaloniki, Greece;

Mr. **Vasilios Koronas**, PhD, Tennis coach - Private College Apostolas Pavlos, Thessaloniki, Greece.

Keynote speaker:

Mr. **Giovanni Di Cola**, PhD, Switzerland: **“The position of the athletes in the present larger sport ecosystem”**

**

15:30 - Coffee break and snack

16:00 - Paper presentations (hall U.I.6)

Keynote speakers:

Mr. Prof. **Paulo Rocha**, PhD, Portugal: **"The challenges of young people participating in sports after the period of the COVID-19 pandemic"**

Mr. Assoc. Prof. **Leonardo Alexandre Peyré-Tartaruga**, PhD, Brasil: **"Elastic mechanism and metabolic economy in distance runners"**

Mr. **Michael Michaelides**, PhD, Cyprus: **"Sports Medicine for All"**

Mr. Assist. Hab. **Michal Krzysztófik**, PhD, Poland: **"Benefits of Flywheel Resistance Training for Youth"**

Mr. Assist. **Peter Sagat**, PhD, Saudi Arabia: **"Kinesiotape in Sports - Doping or Permitted Aid?"**

Mr. **Vassilios Panoutsakopoulos**, PhD, Special Teaching Staff, Greece: **"Asymmetries in track and field jumpers: Connection of Laboratory tests and competition kinematic parameters with performance"**

16:00 - The Deans' Forum (hall U.I.7)

16:00 – Workshop: "STEP BY STEP TO BECOME A PHYSIOTHERAPIST" (hall U.I.3)

Activity Coordinator: **Mircea Ionuț Olteanu**, PhD Student Faculty of Physical Education and Mountain Sports, Transilvania University of Brasov, Romania, Orthopedic Medical and Neurological Recovery Specialist, Fascia Myofascial Therapy Specialist, Medical Taping, Kochi Method, Trigger Points, Joint Technique, Advanced Kinesiotaping Volcanic Rock Massage, Masseur Technician, Yumeiho Therapist grade I, Sports Instructor.

Invited speakers:

Mrs. **Daniela Stanca**, President - College of Physiotherapists from Romania - **"Why choose physiotherapy as a career"**

Mr. **Radu Drăgan**, physiotherapist - **"The importance of therapeutic massage in chronic but also acute pain"**

Mr. **Bobiț Ionuț**, physiotherapist - **"The benefits of chiropractic therapy in musculo-skeletal disorders"**

Mr. **Căpriță Florin**, PhD Student Faculty of Physical Education and Mountain Sports, Transilvania University of Brasov, Romania, - **"Motor assessment tools for preschoolers with special educational needs"**

20:00 - Social evening (ARO PALACE – Restaurant)

Friday, March 10, 2023 – University auditorium

9:30 - Coffee break

10:00 - Paper presentaions (hall U.I.6)

Invited speakers:

Mr. Assoc. Prof. **Michal Wilk**, PhD - Department of Sports Theory, The Jerzy Kukuczka Academy of Physical Education, Katowice, Poland: **"The importance of movement tempo in resistance training. From science to practice"**

Mr. Assist. **Peter Bartik**, PhD - Health and Physical Education Department, Prince Sultan University, Riyadh, Saudi Arabia: **"Nicotine in sports - why do many young athletes use it, and does it really improve performance?"**

Plenary presentations:

Mrs. **Singuran Andra Ioana**, PhD Student, National University of Physical Education and Sport, Bucharest, Romania: **"The importance of swimming and aquatic exercises in the development of the body scheme of children with Down syndrome"**

Mrs. **Ciupitu Liliana Georgeta**, PhD Student, University of Craiova, Romania: **"Intrinsic versus intrinsic motivation for leisure time sport activities after COVID-19 pandemic"**

12:00 - Posters session

13:00 - The awards ceremony

Saturday, March 11, 2023 – University auditorium

11:00 - Specific student activities



YPOM 2023

Location

March 9-11, 2023

International scientific conference:

YOUTH IN THE PERSPECTIVE OF THE OLYMPIC MOVEMENT

Conducting the conference

Transilvania University of Braşov - Sergiu Chiriacescu Hall

Address: 41 Iuliu Maniu Street, Braşov, 500091, Romania

<https://goo.gl/maps/teamKD8oFPVsewmH7>

45.65122967181262, 25.60284321072183

Social evening

Aro Palace Hotel

Address: 27 Eroilor Boulevard, Braşov, 500030, Romania

<https://goo.gl/maps/B6Hyk96UfgrK8M6M8>

45.64522603675074, 25.59051371152757

Volume of ABSTRACTS

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Editor

Dragoş Ioan Tohănean, Assoc.prof., PhD, Braşov, Romania
Vice Dean - Scientific Research and Informatization

Responsibility for the contents of the works included in this volume
belongs exclusively to the authors

CONTENT

- THE SECTIONS OF THE CONFERENCE -

THE CURRENT OLYMPIC MOVEMENT

THE INFLUENCE OF SPEED IN THE INCREASE OF SPORTS PERFORMANCE IN THE FOOTBALL GAME

Nicolae Constantin Daniel

University of Craiova, Doctoral School of Sport Science and Humanities

Abstract

This paper aims to bring to attention a topic of general interest, namely - the influence of speed in increasing sports performance in the game of football. This topic addressed can be useful for football players to understand that the best performances can only be obtained by those players with a good vision of the game, developed, quick, skilled, strong, but also with a quick thinking in a tricky moment during a football game. The purpose of the work was to promote and raise awareness of the role of speed in increasing sports performance in the game of football, and in terms of training, it should be in accordance with current requirements, modern methods should be used to lead to a proper preparation and increase sports performance in the football game. The speed of an individual depends to the greatest extent on the "hereditary endowment" at his disposal. This motor quality can be acquired through systematic training, starting from the age of 7-8 years, but major attention is paid to the development of this quality around the age of 11-14 years. Analyzing the role of speed in increasing sports performance in the game of football, the following conclusions can be drawn:

- the achievements of a football player depend on the way he trains, but also on the hereditary factor
- when planning a training program, the coach must consider the fact that speed can be improved, it develops only during training, during the training itself
- the quick transmission of the ball from different areas of the field to others, at high speed

It is considered necessary to train on grassy ground, because being softer it takes care of the muscles, ligaments and joints, and the emphasis must be on the development of reaction speed, execution, and repetition.

Acknowledgment. This work was supported by the grant POCU/993/6/13/153178, "Research performance", co-financed by the European Social Fund within the Sectorial Operational Program Human Capital 2014-2020

Keywords: speed, football, players.

BIOMETRIC MODEL AND OPTIMAL AGE FOR REALIZATION IN THE WOMEN'S TRIPLE JUMP

Marinova Tereza

NSA Vassil Levski, Sofia, Bulgaria

Abstract

The purpose of the present study includes creating a biometric model of highly qualified female triple jump athletes, as well as establishing the optimal age for achieving a high sports result. **Tasks of the research:** 1) Analysis of the anthropometric characteristics of 30 elite triple jumpers with personal achievements over 14.70 m.; 2) To analyze the development of the sports result in the age aspect. **Results:** The analyzes showed that the optimal age for achieving a high sports result in the triple jump discipline for women is on average 26 years. The female athletes studied by us have an average height of 176 cm, 62 kg. and their BMI is on average 19.6. **Conclusion:** The dynamics of the development of the sports result in terms of age in the athletes we studied gives us reason to conclude that achieving a high result at an early age is not a sign of future development, but we

believe that this research of ours will contribute to improving the management and modeling of the training process in an age aspect.

Keywords: *triple jump athletes, Biometric model.*

THEORETICAL AND METHODOLOGICAL DIRECTIONS FOR IMPROVING THE TECHNIQUE OF HANDSTAND JUMPS IN MEN'S ARTISTIC GYMNASTICS

Popescu Ermil, Enoiu Razvan Sandu

Transilvania University from Brasov, Faculty of Physical Education and Mountain Sports, Romania

Abstract

Vaulting is the most dynamic, athletic and shortest event in gymnastics polyathlon. It has a positive influence on the whole body, its execution requiring a high level of speed, strength and coordination. All jumps with support have a common feature, determined by the phases that make up their integral development, namely: swing, hitting the trampoline, flight 1, support on the table, flight 2 and landing. Handstand jumps in men's artistic gymnastics are in continuous evolution and transformation both from a technical point of view and the aids used to learn them. Specialists are constantly looking for a balance between the technical side of execution and the physical parameters involved in the effort in the jumping event. The technical aspects are significantly developed with the help of auxiliary equipment that breaks down the jump into parts and helps to perfect each part. The improvement of the technical factor of jumping in men's artistic gymnastics creates the prerequisites for superior results in competitions and superior scores both in execution (jury E) and in difficulty (jury D).

Keywords: *technique, assistive equipment, gymnastics, jumping.*

CONTRIBUTIONS ON THE IMPLEMENTATION OF INFORMATION TECHNOLOGY IN THE SPECIFIC TRAINING PROCESS IN VIEW OF IMPROVING THE TECHNICAL-TACTICAL CONTENT OF THE WOMEN'S BASKETBALL GAME ON UNIVERSITY OF PITESTI TEAMS - PARTICIPATION IN THE LODS 2023 EUROPEAN UNIVERSITY CHAMPIONSHIP

Fleancu Julien Leonard, Badescu Victor

University of Pitesti, Romania

Abstract

In the literature it is stated that the physical training refers to the value of the morpho-functional indexes of the motoric qualities. Thus, in the training of athletes, the value of physical training is determined by the level of development of motor skills (volume, diversity and level of mastery) . That is why we consider that physical training is the support for all the other components of the training, which is the starting point for the entire training process. This is precisely what we want to do in the present paper, namely that only through an appropriate physical training, the components of the national batches can successfully solve all the technical-tactical tasks in the field and can have promising performances in the official games.

Keywords: *basketball, university teams, technique, tactics, technology.*

STRATEGIES FOR ELABORATING THE METHODOLOGY FOR TRAINING FUTURE PERFORMERS IN ORDER TO INCREASE THE LEVEL OF SPECIFIC TRAINING OF BASKETBALL PLAYERS ON TEAM UNIVERSITY OF PITESTI, PARTICIPATION IN THE LODS 2023 EUROPEAN UNIVERSITY CHAMPIONSHIP;

Fleancu Julien Leonard, Ghimisliu Florin Gabriel

University of Pitesti, Romania

Abstract

The reason for the continuation of the scientific approach regarding the subject is determined by the interest we have shown over the past few years in the field of professional training regarding the basketball game, being a trained coach in this sport discipline, preparing different masculine and feminine teams at higher level, coming from sports performance, practicing this sport from an early age. Besides the sporting party, I can also remember that I manage my own sports club, Phoenix Galati, a sporting structure that boasts a complete "pyramid" on echelons of age and sex, being represented in the National Basketball Championships to the League National, both male and female. For this reason, as well as through the skills and experience accumulated, the leadership of the Romanian Basketball Federation has given me the confidence of it, calling me executive posts, from the federal fighter to the chairman of the College of Trainers at present. The study of the specialized literature is also a good reason for choosing this theme, the physical factor - seen as a tool that makes progress in the basketball game economy supported by the analysis made in the previous *report*.

Keywords: *basketball, university teams, teams, strategy, methodology.*

THE ROLE OF BODY MOVEMENT IN PHASE I OF SKI JUMP IN ACHIEVING PERFORMANCE**Grosz Wilhelm Robert**

Transilvania University from Brasov, Faculty of Physical Education and Mountain Sports, Romania

Abstract

The ski jumping specific complexity is under the influence of factors that can determine, in various positive or negative ways, the athletes' motor skills, as the action of external or internal forces and mental peculiarities. Most specialists consider the second phase of the jump (take-off) as the most important one. Recent studies show the special importance of the first phase (start and inrun) in obtaining the accuracy of the other jump phases and, therefore, in sports performance. It is known that physical development induces changes in proprioception as well as in the other motor abilities. Permanent control of the body mass index, with a direct influence on the correct distribution of centre of mass in the first phase, is essential for the other three phases of the jump. Consequently, monitoring and identification of possible negative influences induced by physical development on technique are of particular importance. The research subjects were six athletes aged 13-14. The research activity took place during 2020-2021, on the HS 71m Râșnov hill. The results highlight the importance of body movement in phase I of the jump related to the subjects' individual characteristics, aiming to a correct distribution of CoM on the track.

Keywords: *centre of mass (CoM), BMI, ski jumping, performance, physical development.*

COMPLEX PERSPECTIVES ON THE ANNUAL TRAINING PLAN FOR THE OLYMPIC ROWING ATHLETES**Braniște Gheorghe**

Dunarea de Jos University, Galati, Romania

State University of Physical Education and Sport, Chisinau, Republic of Moldova

Abstract

The present article analyzes the correlation between the stages of preparation and development of athletes from the Rowing team of the Republic of Moldova. Considering training as the result of the development of an adequate multi-year training system in pursuing access to the international competitive systems, we appreciate that the main goal of sports training is to obtain a lasting adaptation of the body's apparatus and systems, able to ensure high performance of rowers at official international competitions in accordance with the level of sports regulations corresponding to the targeted events. The analysis of the training systems approached in the preparation of international events allowed obtaining some data of major importance that characterizes physical development, the ability to act, the level of training, both functional and particular, as well as psychomotor capabilities, as triggers for backup alternatives in activating the athletes' energy resources. In this respect, the analysis of the complex of researched indices of Olympic rowers (both male and female) was carried out, using the cross-section method, which demonstrated the higher propensity in male rowers performance, compared to female rowers, except for statodynamic balance, in which women prevail due to the particularities of their anatomical structure. Therefore, interpreting objective individual data meant to represent indicators of their level of preparation, the coaches proceed to selecting the pairs – either men or women, from those athletes that managed to achieve the highest results at the Olympic Games, World Championships, World Cups and European Championships.

Keywords: *Olympic rowers, training plan, adaptation process, morpho-functional peculiarities, level of preparedness.*

Young people sports performance**STUDY ON THE RELATIONSHIP BETWEEN THE EFFICIENCY OF THE ACTIONS IN THE GAME AND THE RESULT OF THE MATCH****Cojocaru Adin Marian, Cojocaru Marilena**

Spiru Haret University, Faculty of Physical Education and Sport, Romania

Abstract

The modern volleyball game is characterized by a substantial increase in the attack force, but also in the speed of the game, which leads to the necessity of training the athletes, so that any intervention at the ball is as correct and efficient as possible. The work wants to highlight the link between the efficiency of game actions, that is, the level of the players' technique and the final result of the game. The main purpose of this research was to emphasize and present the importance of efficiency in game actions, which have the role of determining the outcome of the match. The study was carried out on all participants in the Romanian National Volleyball Championship, men's 2021/2022. Nelson & Groom, 2012, studied and presented methods of quantitative analysis, by which to present the efficiency of athletes, from an objective point of view. The analysis of the game variables (serve, reception from serve, setting, spike and reception from attack) and the result of the game was carried out

through the FIVB 1992 recording system, and then transformed into the Data Volley analysis system, which is accepted, recognized and applied in research studies. The hypothesis of the study, that an increased efficiency of the players, leads to the winning of the games, was confirmed, which reinforces the need to achieve a correct technique and to be applied during the games.

Keywords: *Volleyball, efficiency, performance, game result.*

CONSIDERATIONS REGARDING THE USE OF RANDOM PRACTICE IN THE PROFESSIONAL TRAINING OF SKI INSTRUCTORS

Grigoraş Petru

Bogdan Voda University, Faculty of Physical Education and Sport, Cluj-Napoca, Romania

Abstract

The content of the specific learning in our study was structured based on random practice activity, designed according to the characteristics of the subjects (N = 119), the working terrain, the tasks and the objectives of the professional training of ski instructors. The experimental model proposed by us aimed at making the motor learning process specific to skiing more efficient, by using random practice sessions in variable contexts. We identified the fact that this model was characterized by functional relevance, ensuring conditions and practical approaches that would be operational in the context of specific learning. A consistency of the motor performances was found, generated by the performance in varied contexts. The method of randomization (simple and complex) of the specific motor tasks, made possible the optimal performance of the basic technical skills, especially in the case of subjects who benefited from activity based on motor transfer.

Keywords: *motor learning, random practice, motor transfer, contextual interference, alpine skiing.*

THE DYNAMICS OF FANS ACCORDING TO GENDER IN THE MOMENT BEFORE A MATCH IN GERMAN FOOTBALL

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Abstract

Through academic research on the behaviour of football fans, the emergence of fan zones as a new space for their experiences in the context of the professionalisation and commercialisation of sports was found. Examining the relationship between specially designed fan zones and traditional pre-match gathering places such as pubs, it is found that traditional venues for pre-match activities reinforce masculine boundaries within sports fandom, while fan zones provide an alternative for families. Based on the concept of boundaries within sports fan communities, as developed by John Bale, it was found that sports fandom is characterised by the creation of boundaries that exclude certain groups such as women and children, highlighting the importance of considering the organisation of sport by gender, fandom and how new spaces such as fan zones can challenge and alter traditional boundaries. In conclusion, fan zones offer an opportunity to create a more diverse and inclusive match day experience and that this has important implications for the future of sports fandom.

Keywords: *fans, fan zones, families, fan communities.*

THE ROLE OF TECHNICAL TRAINING IN THE DEVELOPMENT OF CHILDREN'S LATERALITY IN SWIMMING THROUGH BIOMECHANICAL ANALYSIS IN THE FREESTYLE STROKE

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Abstract

Considering the complexity and accelerated pace of achieving performances among children, we approached this study to capitalize and develop laterality as a component of human psychomotricity by applying a training plan aimed at their technical training. **Methods.** The research was attended by 30 children, swimmers, aged between 10-11 years (n = 30), selected in the performance groups following the skills demonstrated and the fulfillment of the selection criteria. The training lessons occurred in six sessions per week, lasting approximately 90 min. **Results.** In the 50 m freestyle event, progress of 1.65 sec (mean = 1.65) was registered at the group level between the two periods of the championships (March, respectively, December). Both the one-sided (One Sided p) and two-sided (Two Sided p) levels of significance indicate that there are significant differences between the two tests (T0 and T1), where $p < .001$ in both cases. The T-test marks the presence of significant differences between the joints on the right and left sides of the body. **Conclusions.** The development of laterality through technical training

that ensures longevity in performance sports and obtaining notable results in competitions is important in the training process of children because, through its specificity, the cyclicity of movements and their symmetry can be improved.

Keywords: *technical training, laterality, swimming, freestyle.*

MOTOR SKILL DEVELOPMENT USING FOOTBALL-SPECIFIC METHODS

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Abstract

The game of football is currently evolving rapidly, as shown in recent years, during which time the impact of the game's strategies and tactics as well as the competitive spirit of sports can be observed on both a national and worldwide scale. This article's goal is to help secondary school students develop their motor skills through methods unique to the game of football, taking into account the crucial role that sports games, particularly football, play in helping students reach their training process goals. The impact of a strong physical training program on the growth of physical abilities in general may be emphasized if we simply briefly mention the training components. Children develop quickly in their ability to learn motor skills, but they lack a feeling of combinatorial play, which is frequently reduced to "one versus all," as well as a sense of partitioning the playing area, as shown by "everyone goes for the ball." The measuring and testing were done to emphasize the progression of the planned investigation. In order to conduct the study, a number of control samples were employed to gauge the students' level of physical preparation and measure the somatic indices.

Keywords: *juniors, soccer, basic movement skills, endurance, strength.*

THE IMPROVEMENT OF COORDINATION SKILLS IN JUVENILE FOOTBALL PLAYERS BETWEEN THE AGES OF 10 AND 14 THROUGH SPORT TRAINING

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Abstract

Trying to demonstrate talent necessitates general intelligence, creativity, and individual qualities, and demonstrating talent necessitates not only a strong cognitive component but also mental dispositions as well as physical abilities, the influence of the environment, and the individual's self-activity. The goal of this article is to lay the conceptual and methodological groundwork for the identification of outstanding youngsters in football throughout the long-term collaboration of football academies and schools in Romania. Studying and analyzing the opinions of Romanian football professionals with regard to the value of the degree of coordination capacity development in the selection of kids between the ages of ten and fourteen is one of the main goals of this research. To accomplish this critical goal, we created and circulated a questionnaire with 12 research-related questions. The work's practical relevance stems from the fact that the research's findings can be utilized as methodological standards by football coaches and instructors at educational institutions and specialized sports organizations. Football is clearly evolving as more nations on more continents take up the sport, according to an analysis of the biggest competitions in recent years.

Keywords: *selection, training, football, performance, talent.*

OPTIMIZING SPORTS TRAINING BY INTRODUCING ISOINERTIAL EXERCISES USING A FLYWHEEL: A SYSTEMATIC REVIEW

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Abstract

Introduction. Considering the results obtained by athletes from our country in recent years, finding new training methods and means is necessary for their improvement. **Methods.** This literature review aim to demonstrate the importance of improving and modernizing the speed training of sprinters and to incorporate the most relevant information from specialist articles on the subject in question. Although the performance of sprinters is mostly based on genetic traits, studies and experiments show that it can be improved through proper training and the advancement of technology. Isoinertial training is carried out with the help of a device that maintains constant resistance throughout the movement, both during the actual contraction of the muscle and during the relaxation phase. Thus, the muscles work at maximum force at any angle, which makes this type of training much more effective than classic strength machines. A search of electronic databases [PubMed, JSSM, Web of Science, and Google Scholar] was conducted to identify all publications employing the isoinertial training up to Feb. 2023. **Results.** Multiple

studies have identified and demonstrated the benefits that isoinertial exercises bring to athletes' training. **Conclusions.** Introducing isoinertial training to athletes' training has proven to be helpful in improving their athletic performance and fitness.

Keywords: *isoinertial training, sport, performance, strength, flywheel.*

PUBLIC POLICIES TO SUPPORT SPORT IN ROMANIA

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Abstract

Today's society is increasingly concerned with a healthy lifestyle, and in order to have a healthy life, especially after the pandemic period, people have been inclined to take special care of important topics such as sports, nutrition and mental health. All these components showed that it is necessary most of the time for the state to intervene and ensure the access of all citizens to certain services through various policies. In these conditions, I considered that a study on sports support policies is a relevant one for our country. In our approach, we used literature review, data collection and observation regarding sport as a component of modern society.

Keywords: *public policies, sport, society*

INCREASING THE EFFICIENCY OF BREASTSTROKE SWIMMING IN KIDS THROUGH IMPROVING THE SYNERGY OF PROPULSIVE MOVEMENTS

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Abstract

The purpose of research lies with the improvement of the optimization method of the propellant movements in the breaststroke swimming procedure, by introducing some training means which lead to the synergic action of these with a view to increasing swimming efficiency. The experimental training program for the optimization of the propellant movements in the crawl swimming procedure by improving the ability of combining and coupling of the movements and the ability to regularize the movements, involved the analytical exercises for arms, legs and breathing. The analysis of the statistical significance of the difference between the averages of the results indicates the fact that these are significant threshold. The analysis of the correlation coefficients indicates that the existent relations between the action of the legs and the action of the arms and, also the swimming procedure are almost the same following the training process. We believe that the study of the psychomotor components which define swimming will lead to the efficiency of the swimming technique and implicitly to the increase of performance under the conditions of saving time and energy.

Keywords: *swimming; synergy; coordination; optimization.*

THE ATTITUDE OF ROMANIAN SPORTS FANS TOWARDS PSYCHOLOGICAL COUNSELING

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Abstract

Understanding the attitudes of athlete's towards sports psychology is crucially important because if psychologists understand the barriers and hesitations of athletes towards psychological counselling, they can intervene educationally to foster a mindset and belief. In the current study, we aim to examine the existing differences between high-performance sports and non-professional (junior) sports regarding psychological counselling. The SPAR (Sport Psychology Attitudes-Revised) questionnaire was applied to a number of 84 athletes, aged between 12 and 36 years old. In junior sports, the scores on the sub-scale of tolerance for stigma are lower, and they are less concerned with the stigma issue, preferring to seek psychological counselling only when absolutely necessary. However, this presents certain advantages, as we can say that the future holds promise. Young people are more informed and can find motivation in a direction that can offer them a successful career. On the other hand, junior colleagues consider the cultural preference as the most important factor. Identifying one's personal preferences or the fact that individuals are willing and capable of discussing personal issues and caring for others indicates that all juniors are willing to accept responsibilities. In senior ranks, there is already a concept that personal problems will be solved at home or on their own.

Keywords: *sports psychology, motivation, attitude, beliefs, sports consulting.*

THE IMPORTANCE OF THE SPEED EXECUTION IN THE TECHNICAL PROCEDURES SPECIFIC TO THE STYLE ASHIHARA KARATE

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Abstract

Considering the complexity of the process through which sports performance is obtained, this article brings to the attention of specialists in the field, considerations regarding the determining character of the speed execution in the technical procedures that are specific to the training of Ashihara Karate practitioners. The purpose of the research is to determine the influence that the development of execution related to the speed has on the technical training, and implicitly on the sports performance. The experimental research took place over a period of 8 weeks, including 15 athletes, members of the Sen Craiova Sports Club, during the preparation period for participating in the National Championship, aged 20-35 years. Among the research methods used, I mentioned the theoretical documentation method, as well as the observation method.

In carrying out the proposed approach, the selected athletes were monitored, and initial tests were carried out at the beginning of the research, later training programs were developed and applied, as well as a final test, using the same tests.

Following the analysis of the results, different conclusions were highlighted that emphasized the importance of improving the speed of execution related to this specific training techniques in obtaining an optimal competitive performance.

Keywords: *Ashihara Karate; speed; execution.*

PECULIARITIES OF PHYSICAL TRAINING IN THE CASE OF ASHIHARA KARATE STYLE PRACTITIONERS

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Abstract

Sports training is the basic pillar of the complex process that must have its purpose, mainly, in the achievement of sports performance that must obey well-defined principles and rules, in order to achieve progress in the training of practitioners. The experimental research took place over a period of 6 weeks, including 12 athletes, members of the Sen Craiova Sports Club, in the preparation period for participating in the National Championship, aged 20-35 years. As research methods used, I can mention the first one was the method of tests and samples by performing anthropometric measurements as well as the application of technical procedures and motor tests. Also at the same time, the second one was the observation method that was used throughout the application of work programs in specific trainings, in order to detect those particularities that give the practitioners the necessary advantages to obtain the specific performances. Following the analysis of the obtained results, it is evident that the level of general and specific physical training contributes substantially to the increase of the training level of the athletes, an aspect that is reflected in the manifestation of the motor indices, of the change in their physical, functional and technical-tactical parameters.

Keywords: *physical training; Ashihara Karate style.*

ASPECTS REGARDING THE ROLE OF THE COACH-MANAGER IN SPORTS ACTIVITY

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Abstract

Leading training and athletes in competitions makes the coach use a set of laws, principles, methods, etc., plus personal skills, to become a true manager of the entire activity, the complexity of responsibilities, regardless of the level at which he works, proving to be a very high one. We support this because management as a process aims at achieving goals using resources: people, materials, spaces, time. In the initiated research, the scientific methods were used: analysis of specialized scientific-methodical literature and analysis of documents related to sports training issues - as a social activity. In a systemic view, sports activity presents itself as an open system subjected to constant energetic, financial, informational and human changes. For survival, dynamic adjustment is needed; balance being under a three-fold constraint of performance, duration and involved costs. The receiver of these balancing is ultimately the coach. Like managers in the business world, coaches exercise a number of functions of utmost importance for the evolution of their "organizations". At the basis of the conception and exercise of the management of these sports institutions, there is a set of principles with triple determination: socio-economic, technical-material and human one.

Keywords: *sport, social activity, management, coach activity, sports activity.*

OPTIMIZING HANDBALL SPECIFIC SKILL USING SOME DYNAMIC AND PREPARATORY GAMES

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Abstract

The purpose of the research is the study ways to optimize the specific skill of the handball game by using dynamic and preparatory games. Without coordination and skill, there is no such movement. Skilled people must be people of character, of action. In the same way as in the mountains, in sports, skill is a factor with special importance in achieving good results. Skill in sports creates a total success from the sports competition, for two teams, well-trained technical and physical players with good skills are presented, it creates a unique success, The modern, advanced game is played at full speed, at a sustained pace, which requires a lot of physical effort. In addition to the speed of execution, movement and reaction, specific physical endurance, skill in making slots and changes of direction, in addition to the general mobility and suppleness necessary to perform the most complicated movements, throwing power, coordination, and balance, it is also necessary to cultivate the sense of the ball, which gives safety in catching, throwing, in the accuracy of passes and throws at the goal.

Keywords: *handball, coordination, improvement.*

REDUCED RANGE OF MOTION AND VERTICAL JUMP PERFORMANCE ARE ASSOCIATED WITH HORIZONTAL ASYMMETRIES IN FEMALE SOCCER PLAYERS

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Abstract

Performance in jumping and change of direction (COD) tests are deemed reliable indicators of skill level in soccer-specific actions. Greater asymmetries between legs have been identified as a risk factor for developing acute and overuse injuries, as well as reducing performance. The aim of this study was to quantify bilateral asymmetries in mobility, jumping and changing direction tests in adult female soccer players. Thirty-eight highly trained female soccer players performed a testing protocol including ankle dorsiflexion, single leg jumps for height (CMJ) and for distance (HJ) and 180° COD tests. Within-session reliability was acceptable ($CV \leq 7.9\%$) and relative reliability showed good to excellent ($ICC: 0.83$ to 0.99). The one-way ANOVA reported higher inter-limb differences for COD ($10.9 \pm 8.04\%$) and single leg CMJ ($5.70 \pm 5.22\%$). Pearson correlations highlighted significant relationships between horizontal jump asymmetries and ankle dorsiflexion ($r=-0.41$), CMJ ($r=-0.36$ to -0.49) and HJ ($r=-0.28$ to -0.56). By using various methods to assess inter-limb asymmetries, researchers can gain insight into the specific ways in which these asymmetries can reduce soccer performance. When seeking to improve specific on-field skills, practitioners should be aware of the magnitude and direction of these asymmetries, as well as their specific effects on performance.

Keywords: *performance, symmetry, football, injury risk.*

THEORETICAL ASPECTS REGARDING ATHLETICS AND THE EVENT OF THE JAVELIN THROW

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Abstract

Standing out among the other three throwing events, the javelin throw is known to be one of the most spectacular events in the discipline of athletics. It usually takes place in the last two days of major world competitions due to its impressive show and thrilling changes that occur during the six attempts. The aim of this paper is to present the theoretical aspects of this event through the research and study of the published literature and scientific work of the specialists in this field. As the sports domain is one of a large content this paper is a contribution to a dynamic and expanding literature. Athletics, also known as track and field, along with gymnastics are the sports disciplines that lie at the basis of all sports. First traced at the Ancient Olympic Games athletics was presented as a competition with five events named pentathlon, which also contained the javelin throw. Over the years this event has undergone many changes and the throwing technique is constantly improving due to the specialized equipment and the continuous development of the technologies. In conclusion, the academic literature on this topic is expanding and transforming and the theoretical aspects are adapted to the new discoveries.

Keywords: *athletics, javelin throw, published literature, throwing technique.*

THE IMPORTANCE OF THE EVOLUTION OF THE LIBERO PLAYER IN THE GAME OF VOLLEYBALL

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Abstract

Aim. The aim of the present work is to carry out a study on the technical procedure of taking over from below with two hands, specific to defense and the importance of the libero player in the game of volleyball. *Methods.* We have studied the statistics of the matches from the 2018-2019 Competition period and the statistics from the 2019-2020 Competition period of the female athlete C.A, a member of the national junior team (U18) who is registered at CSM Bucharest/CS Rapid Bucharest. *Results.* After studying the competitive statistics of sportsmen C.A. in the year 2018-2019 in the A2 Division in the 2 matches, 38 receptions, 1 error, with a positive percentage of 73% and an excellent percentage of 68% was observed in the reception indicator. In the 2019-2020 competitive year in the A1 Division, the athlete registered 64 receptions, 5 errors, with a positive percentage of 56% and an excellent percentage of 34%. *Conclusions.* We can see that the athlete has improved her game statistics, as shown by the Data Volley program.

Keywords: *Data Volley program, libero player, competition, national junior team.*

ASYMMETRIES IN TRACK AND FIELD JUMPERS: CONNECTION OF LABORATORY TESTS AND COMPETITION KINEMATIC PARAMETERS WITH PERFORMANCE

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Abstract

Symmetry is regarded as an important element for health and performance. However, athletes have dominant limbs for certain motor tasks and a preference for inter-limb selection. Bias exists in the literature on whether track and field athletes demonstrate inter-limb differences due to the asymmetrical nature of the strenuous take-off task and the adaptive consequence due to long-term systematic training. The lecture aims to present if inter-limb asymmetry exists in track and field long jumpers (personal bests: 5.42-8.05 m) in terms of performance and force output from bilateral Maximum Voluntary Isometric Tests (MVIT), bilateral and unilateral vertical jump tests, as well as the step parameters obtained during the approach in competition. It appears that no significant inter-limb differences exist in the kinetic and temporal MVIT parameters and no correlation is evident between long jump performance, MVIT parameters and their inter-limb asymmetry. The same was observed in all jumping tests for performance and force output. However, long jump performance was significantly ($p < .05$) correlated with the peak force of each leg for the bilateral vertical squat jump and of the swing leg in the bilateral vertical countermovement jump. Thus, coaches should consider the kinetic pattern of the applied jumping drills to avoid asymmetry.

Keywords: *athletics; biomechanics; symmetry; step parameters; strength tests.*

Physical education and sport for all

STUDY REGARDING THE PERCEPTION ABOUT PRACTICING PHYSICAL EXERCISES ON STUDENTS;

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Abstract

Introduction. Physical activities are closely related to well-being on all levels, such as social relationships, quality of life, improving physical condition and health. **Methods.** The purpose of this study was to capture the role of physical exercise in increasing the quality of life of university students and in decreasing the feeling of loneliness. In this sense, we formulated a series of objectives: identifying the importance of physical exercise among students, as well as the appreciation of physical exercise according to their declared level of activity, establishing relationships between exercise appreciation and quality of life in university students, establishing relationships between appreciation of physical exercise and level of loneliness in university students. A number of 118 students aged between 19 and 54 participated in the present study of which 26 were male and 92 were female, 71 from the urban and 47 from rural areas. The socio-demographic data were measured based on a list of questions regarding age, gender, environment of residence, practice of a performance sport or sports activities in the free time, the type and frequency of physical exercise practised. When it comes to appreciation of the importance of physical exercises, it was measured on the basis of a seven-item questionnaire. **Results.** It was observed that there was significant differences in

the level of certain aspects of the importance of physical exercises according to practicing or not practicing of it. Conclusions. We managed to identify the importance of physical exercises among students, as well as their appreciation according to the level of activity declared by the participants.

Acknowledgement: *This work was supported by the grant POCU/993/6/13/153178, „Performanță în cercetare”-Research performance” co-financed by the European Social Fund within the Sectorial Operational Program Human Capital 2014-2020.*

Keywords: *physical exercises, quality of life, self-esteem, students, statistics.*

INFLUENCE OF MOTOR CAPACITIES THROUGH MINIHANDBAL TRAINING IN PRIMARY SCHOOL CHILDREN SELECTED IN THE REPRESENTATIVE TEAM OF THE SCHOOL

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Abstract

The importance of sports training is beyond the need for argument. The influence of training on the development of children's motor and physical skills is proven. The aim of this study is to highlight the benefits of a training program in relation to a physical education program on the formation of motor characteristics. The research was carried out on a sample of 53 students from the Pre- and 1st grade of boys and girls from the Bucharest Secondary School no.96, divided into an experimental group of 24 students and a control group of 29 students. Six variables were used to assess the basic motor skills: maximum speed in 10 m sprint and 20 m sprint, zig zag running, measurement of dynamic balance (Bass test), long jump, throwing a baseball. The experiment was conducted over a period of three months, with both groups having a total of 36 hours of training. There was no significant difference between the initial tests of the two groups ($I=0.24$, $p=0.44$) with both groups having a similar start.

Keywords: *minihandball, training, basic motor.*

STUDY ON THE OPINION OF THE ROMANIAN PE TEACHERS REGARDING THE TEACHING OF SPECIALIZED THEORETICAL KNOWLEDGE

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Abstract

Currently, the main concern in the field of physical education (PE) is to create adults who engage in physical activities (PA) independently. Studies have shown that most students lack knowledge about the role of PA. So approaches to PE have been proposed in which more emphasis is placed on knowledge and understanding theoretical notions. The purpose of this paper was to identify the position of the Romanian PE teachers in relation to the theoretical component from PE. In this regard, a questionnaire was built based on 4 factors: (1) the discipline of PE (as a whole); (2) the practical component within PE; (3) the theoretical component within PE; and (4) the need for an application to help teachers implement theoretical notions. The results indicate that Romanian PE teachers appreciate the practical component (4,495 out of 5) as being more important than the theoretical one (3,443 out of 5). But there is also a group of teachers who consider it necessary to make a mix between a practical and a theoretical evaluation ($r=0.327$; $p<.05$). In conclusion, we highlight the need to increase the awareness of Romanian PE teachers toward theoretical knowledge.

Keywords: *PE teachers; theoretical knowledge; knowledge-based approach.*

THE ROLE AND IMPORTANCE OF PHYSICAL EXERCISE ON THE AGGRESSION LEVEL OF HIGH SCHOOL STUDENTS

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Abstract

Introduction. The phenomenon of bullying is increasingly widespread among students and at the national level all kinds of techniques and activities are being tried to combat it. **Methods.** In the present study, we aimed to measure the level of aggression among secondary school students, who participated in a Physical Education and Sports Program, held over a period of 6 months, with a frequency of 8 times/month. A number of 36 students, at the secondary school level, aged between 11-15 years, from the rural environment, from the South-West Region of Oltenia, all enrolled in the same school, took part in this experiment. As a tool, the Aggression Questionnaire (AQ) was applied, with 4 scales: Physical Aggression, Verbal Aggression, Anger, Hostility. Aggression was measured both before and after participation in the sports training program. **Results.** The results indicated a lower level of aggression at the end of the program, compared to the level present in the students, before

following the sports trainings. *Conclusions.* Thus, physical and sports education can be an optimal means of controlling aggression and a catalyst for it in positive aspects and behaviors.

Acknowledgment. This work was supported by the grant POCU/993/6/13/153178, "Research performance", co-financed by the European Social Fund within the Sectorial Operational Program Human Capital 2014-2020

Keywords: physical exercise, students, aggression.

QUESTIONNAIRE REGARDING THE PERCEPTION AND PERSPECTIVE OF HIGH SCHOOL STUDENTS ON THE PHYSICAL EDUCATION CLASS IN THE HIGH SCHOOL CYCLE

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Ovidius University of Constanta, Faculty of Physical Education and Sport, Constanta, Romania; Romanian Olympic and Sports Committee, Romania.

Abstract

Purpose. The research aimed to identify the perception and perspective of high school physical education teachers on the introduction of new training tools during high school physical education classes. **Methods.** The study was carried out using the online platform Google Docs to collect the data provided by the teachers. The questionnaire was completed between May 15 and June 15, 2022 by 143 teachers. The questionnaire consists of two sections. The first section contains 4 demographic questions, and the second section consists of 17 questions that have as their theme the teachers' perception of physical education lessons and their perspective on the implementation of new equipment during the physical education lesson. **Results.** After analyzing the results obtained, based on the answers given by the teachers, we notice that it is obvious that they are interested in new methods and means to be introduced during physical education classes. 65% of the surveyed teachers state that the introduction of new fitness equipment increases students' interest in actively participating in physical education classes. **Conclusions.** The result of the questionnaire shows that: 85.3% of the teachers believe that more hours of physical education would be useful for a harmonious physical development, 65% of the teachers surveyed state that the introduction of new fitness equipment increases the interest of students to actively participate in physical education classes.

Keywords: physical education classes, TRX, fitness, questionnaire, physical education teachers.

MEANS OF BASIC GYMNASTICS IN THE PHYSICAL EDUCATION CURRICULUM FROM ROMANIA

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Abstract

The discipline of physical education is constantly in a process of expansion and adaptation to ensure that its main purpose is achieved: the maintenance of general health. Basic gymnastics is found in the content of the subject and can be accessed throughout a school year and through its means facilitates the multilateral development of motor skills, harmonious physical development and organizational skills. In this study we present an experimental curriculum dedicated to 5th grade. It was made up of models and structures of physical exercises within the framework of basic gymnastics. The implementation of the program was carried out on a test group of 236 students (54% urban and 46% rural) during the school year 2021-2022. The evaluation consisted of 4 tests from the national evaluation system. The results showed significant progress achieved in the final tests for all 4 tests used ($p < 0.001$). The programme also aimed at the integration and active involvement of the whole class as well as the identification and presentation of alternative means for special situations that arise during a school year.

Keywords: physical education; basic gymnastics; curriculum.

STUDY ON THE LEVEL OF STRENGTH DEVELOPMENT IN VOCATIONAL TRAINING STUDENTS

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Abstract

Type of research design: The present work is a study that tracks the level of development of the force of the lower limbs, upper limbs, abdominal muscles but also the posterior muscles of the trunk. *Research subjects:* The research started with the beginning of the current school year and was carried out on the students of the ninth and tenth grades from the Technological High School I. C. Brătianu, from the vocational education. The students from the Xth grade who expressed their agreement to participate in our study were 22, who participated in the 3 modules of school activity in the two hours of physical education weekly. The subjects in the ninth grade who participated in the physical tests were 30 in number. *Method used:* The tests were performed against the clock, over the duration of 30 seconds, and in order to assess the explosive force (detention), we measured the length of the jump with the help of roulette. Thus, according to the calendar plan, in module 1 of the school year 2022 – 2023, the specific measurements regarding the health status of the students were recorded, respectively weight (Kg) and height (cm), but also the initial testing of the physical samples. In module 3 we conducted the final testing. *Main results:* The results obtained from the tests are varied.

Keywords: vocational education, force, students.

THE SOCIALIZATION OF PRIMARY SCHOOL PUPILS THROUGH MOTOR GAMES

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Harabagiu Neculai

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Abstract

This paper aims to highlight one of the most important connecting elements of society, namely socialization. Improving socialization through motor games is, perhaps, a solution to many problems, as children align emotionally, emotionally, volitionally, physically, cognitively, etc. The study was conducted on a sample of 59 students aged 6 to 9 years. The sociometric technique was used to determine the negative, positive, and neutral interpersonal relationships by age level, before and after the use of the motor games selected. The index of preferred status, cohesion index, arithmetic mean and progress rate were used for statistical interpretation. Following the performance of the proposed games and the sociometric analysis, apart from the cohesion index, for the 6-7-year-old group that had a negative result in the final test, all groups had a lower or higher rate of progress.

Keywords: socialization, physical education, motor games, primary school.

COMPARATIVE ANALYSIS OF SOME STRENGTH INDICES BY GENDER IN PRIMARY SCHOOL STUDENTS AFTER THE COVID CRISIS¹⁹

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Abstract

The purpose of this research study was to examine whether the values of some strength indices in primary school students are different in girls than in boys after the Covid 19. The sample included in the research consisted of 63 primary school students who were divided according to gender into two groups: 28 girls (M = 30.73, SD = 7.26 kg; M = 133.57, SD = 4.57) and 33 boys (M = 32.90, SD = 8.81 kg, M = 135.06, SD = 7.28 cm). The research focused on the following muscle groups: *upper and lower limbs, abdominal and lumbar region* and the following *tests* were used: *bench pulling, standing long jump, torso raises from dorsal decubitus* and *torso raises from facial decubitus*. *Independent - Samples T Test* was used to interpret the results. Significant differences were found for the *Standing long jump* and from *Bench press*. The mean for the boys' *Standing long jump* values (M = 109.48, SD = 24.63) is significantly higher ($t = -2.07$, DF = 59, two-tailed $p = 0.043$) than that of the girls (M = 97.50, SD = 19.74). In the case of the *Bench pulling test*, boys' values (M = 17.58, SD = 5.89) are also higher ($t = -2.77$, DF = 59, two-tailed $p = 0.007$) than girls' (M = 12,39, SD = 8,60). There was no difference between the means of the other two samples. These results tell us that more attention to physical activities is needed after the Covid 19 crisis period.

Keywords: strength indices, primary school, Covid19, physical education.

STUDY REGARDING THE OBSERVANCE OF THE NORMS OF ETHICS AND PROFESSIONAL DEONTOLOGY WITHIN THE HENRI COANDĂ AIR FORCE ACADEMY IN BRASOV

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Abstract

The present study aims to administer a questionnaire at the level of the "Henri Coandă" Air Force Academy students, in Brasov. The main objective of the questionnaire is to conduct research on the student's perception regarding the observation of the academic deontological norms in Physical Education classes. A number of 100 students from all the years of study and all specialization components of the Bachelor's level of education were surveyed. The questionnaire administered to students included a number of 15 items that addressed the main aspects related to the operational framework under which specific activities of the Physical Education classes were carried out. Through this research, the main objective aimed to assess, from the ethical perspective, the behavior of the professor, his attitude and level of professional knowledge in direct interaction with the participants in the Physical Education activities included in the curriculum. Specifically, the moral traits of the professor, his competences displayed in the teaching process, the objectivity of the professor with regard to the fair approach to students and their evaluation, as well as the hypothetical manifestation of discrimination of students based on different criteria stated in the questionnaire were targeted.

Keywords: *questionnaire, ethics, teacher, deontology.*

STRENGTH MOTOR QUALITY: TRENDS AND DIFFERENCES ACCORDING GENDER AND AGE AMONG URBAN PRIMARY SCHOOL STUDENTS

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Abstract

This study aimed to assess whether gender and age influenced differences in some strength indices in female and male primary school students. A total of 105 primary school students were sampled, 46 girls and 59 boys. The sample was divided by gender into two groups, 46 girls ($M = 46$, $SD = 9,73$ kg; $M = 8,52$, $SD = 1,50$) and 59 boys ($M = 37,64$, $SD = 23,03$ kg; $M = 8,36$, $SD = 1,80$). The muscle regions tested were the lumbar region, lower limbs, upper limbs and abdominal region. The tests performed on the subjects were in accordance with age-specific motor characteristics and the current school curriculum, and were as follows: *torso raises from dorsal decubitus*, *torso raises from facial decubitus*, *squats and push-ups*. Data interpretation was performed using the *Independent - Samples T Test*. A significant difference was identified in the *Push Up* and the *Squats*. Mean for the boys' Push Up test values ($M = 5,93$, $SD = 3,01$) are bigger ($t = -2,02$, $DF = 103$, two-tailed $p = 0,46$) than the values of the girls ($M = 4,80$, $SD = 2,59$). Also, the values of the boys' squats test ($M = 27,07$, $SD = 5,50$), are bigger ($t = -2,02$, $DF = 103$, two-tailed $p = 0,46$) than the values of the girls ($M = 24,93$, $SD = 5,16$). The values obtained by applying the other samples do not show significant variations. The results obtained from the application of the tests show differences in the strength indices of female and male students.

Keywords: *motor quality strength, primary school, physical education, gender.*

THE INTERACTION OF SCHOOL AND FAMILY IN THE PHYSICAL EDUCATION OF YOUNG SCHOOL – AGE STUDENTS

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Abstract

The present research aims to determine and validate the theoretical-applied foundations of the interaction of school and family in the physical education of young schoolchildren. Through the theoretical and praxiological approach we will demonstrate that this can be achieved only when the educational institution initiates, forms, develops and guides effective school-family educational partnerships in the physical education of young schoolchildren. The following methods were applied in the research: *general scientific* (theoretical analysis of the pedagogical and methodological literature on the studied problem; research and dissemination of advanced pedagogical experience (school and family) in the physical education of young schoolchildren; *experimental* (pedagogical observation, conversation, questioning, survey of parents and children, testing, pedagogical experiment, quantitative and qualitative processing of research results, interpretation, mathematical processing of statistical data and their graphical presentation). The practical application of the proposed model has led to the effectiveness of school-family collaboration in student's physical education; including the change of parent's attitude towards children's physical education in a positive / active one, and an improvement in health, school success and parent-child relationships. The

pedagogical model contributed to the integration of family and school efforts, and the experimental program ensured the joint activities of parents, children and teachers, which aim at the systematic practice of physical education and creation, a healthy lifestyle for young schoolchildren.

Keywords: school and family interaction; young school age students; family; level of development and physical training.

THE CONTEXT OF RESEARCH IN THE FRAMEWORK OF PHYSICAL EDUCATION REGARDING THE CORRECTION OF PRIMARY CLASS STUDENTS' WRITING

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Abstract

The article elucidated the theoretical-methodological foundations of the pedagogical benchmarks of influence of the specific means of physical education on the correction of dysgraphia in primary school students, a fact that determined the conceptualization and elaboration of a pedagogical model that allows improving them in the context of school physical education. *Research purpose.* Analysis of epistemological benchmarks regarding the influence of specific means of physical education on correcting dysgraphia in primary school students. Establishing and analyzing the development of psychomotor characteristics in primary school students. Establishing the effect relationships between the specific means of physical education and those characteristics of the writing activity. Experimental argumentation of the effectiveness of the Pedagogical Model of the influence of the specific means of physical education on the correction of dysgraphia in primary school students. *The analysis of the results* resides in the methodological substantiation of the pedagogical benchmarks of the influence of the specific means of physical education on the correction of dysgraphia in primary school students, a fact that determined the conceptualization and elaboration of a pedagogical model that allows for improving them in the context of school physical education.

Keywords: physical education, graphical disorder, methods and means, psychomotricity, sensorial.

THE IMPORTANCE OF SWIMMING AND AQUATIC EXERCISES IN THE DEVELOPMENT OF THE BODY SCHEME OF CHILDREN WITH DOWN SYNDROME

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Abstract

This study aimed to demonstrate the effectiveness of swimming and aquatic exercises to improve the coordination and balance capacity (knowledge of one's own body and its segments, awareness of self-image, laterality) of people diagnosed with Down Syndrome by developing and implementing a program of therapy aimed at stimulating and capitalizing, simultaneously, of playful behavior, the need for movement, and competition in the aquatic environment. *Methods.* To demonstrate the effectiveness of the applied program, the target group consisted of 15 children diagnosed with Down Syndrome ($n = 15$), children who did not practice swimming lessons and any kind of activity as a form of physical movement involving water, but only had participated in systematic physical activities outside the physical education classes included in the school curriculum. *Results.* Each participant achieved a considerable improvement in the final score in each of the 10 items, the total p-value being less than $p < 0.05$, so we can reject the null hypothesis that swimming and aquatic exercises do not develop the body schema, a component of psychomotricity. Thus, the alternative hypothesis is accepted according to which, by applying a rigorous swimming program based on exercises aimed at the development of the body schema, remarkable results in the sphere of psychomotricity can be obtained. *Conclusion.* Applying a swimming program using complex and varied aquatic exercises can develop a body schema, an essential component of human psychomotricity.

Keywords: swimming, aquatic exercises, body scheme, Down syndrome.

STUDY REGARDING THE USE OF DYNAMIC GAMES IN LEARNING BASKETBALL FOR 5TH GRADE STUDENTS**Ciocan Vasile Cătălin, Voinea Lucian Nicolae, Șufaru Constantin**

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Abstract

The game of basketball is a collective sports game, being part of the means that can fulfill the functions of physical education, both the specific ones (the function of perfecting physical development and the function of perfecting motor capacity) and the associated functions (recreational, hygienic function and the function of emulation). The goal I set for this work is to improve the methodology of teaching the game of basketball in the 5th grade by using related dynamic games, these games being introduced in physical education and sports lessons in a greater proportion. To achieve this goal, I set myself the following tasks: the study of specialized documents; establishing the purpose of the research, establishing action systems, namely dynamic games related to basketball, for physical education and sports lessons in the 5th grade; the introduction and experimentation of dynamic games in lessons, along with the monitoring of the development of skills and motor skills in students from the experimental class and from the control class; establishing control norms and setting scales; the processing and analysis of the data obtained following the control rules; highlighting the conclusions, the creation of the work and its submission. After carrying out the experiment and analyzing the results obtained, we reached the following conclusions: the intensive use in physical education and sports lessons in the 5th grade of the means and methods specific to the game of basketball ensures the development of all psycho-motor skills in students, being consistent with the requirements of the physical education program; thus, the indices of psycho-motor skills from the experimental class registered a positive evolution for all the students of the class; the dynamic games for learning basketball were introduced in the lessons in the presence of the other general and operational skills of school physical education provided in the program;

Keywords: *game, basketball, physical education, dynamic games.*

PHYSICAL EDUCATION AND SPORT BETWEEN TRADITIONAL AND MODERN**Ilași Roxana-Cristina**

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Abstract

Regardless of the means used, classic or modern, physical education and sports class is among the most preferred subjects. By classical means, learning is guided by the teacher, with clearly imposed rules, towards the achievement of objectives proposed for that learning unit. By using modern means, by using experiential learning, the child has greater freedom and is only guided to choose his own style in achieving the objectives of the learning unit. More concretely, the replacement of competitive games with cooperative games brings a plus for the psyche of the students. They will become adults who are able to work in groups, eliminate the fear of failure, encourage finding solutions and solving problems. The research was carried out using the questionnaire method and the methods used by teachers and the means preferred by students were identified. It was applied to both students and 30 adults from different parts of the country. The predominant means of physical education and sports lessons are the traditional ones, and the preferred means are the modern ones. Participating students were able to make a difference by having a CDȘ for sports in the school curriculum.

Keywords: *traditional, modern, physical education and sport.*

THE IMPORTANCE OF HANDBALL IN THE DEVELOPMENT OF HIGH SCHOOL PUPILS**Huțuleac Laurențiu Ilie, Calugher Viorica, Lungu Ecaterina**

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Abstract

Constituting a young sports game, handball recognizes a continuous development, at every great international competition, the tactical-technical treasure is improved with new elements, this proving that it still has beautiful perspectives and that it is quite far from the time of full stabilization. On the ground, the movement of the defenders is obviously in progress, without the speed of reaction and execution having reached to all the players the necessary parameters of correct annihilation of the opponent's attacking actions. The aim of the research consists in identifying the opinions of pupils, parents and teachers from high-school education institutions on the main aspects of the handball game within the physical education and sport lessons and training. The present research is of ascertaining – ameliorative type, carried out on a sample of 110 people (pupils, parents and

specialized teachers) from four educational institutions in Campulung Moldovenesc, Romania: National College «Dragos Voda», Bucovina Forest College, National Military College «Stefan Cel Mare» and Technological High School no.1, between February 1, 2022 and September 1, 2022. The methods used in the research included: the analysis of the specialized literature, the diagnosis questionnaire, the mathematical-statistical method. The main conclusions of the study refer to the benefits of the handball game, its role in the morpho-functional development of the pupils, the level of motivation of the pupils to practice this game within the physical education and sports lessons, as well as outside the hours, within the handball high school team.

Keywords: *handball, morpho-functional development, training.*

IMPROVING SPEED IN PRIMARY SCHOOL PUPILS USING INTEGRATED DYNAMIC GAMES

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Abstract

Current primary education aims at the multilateral development of students using means that interconnect the subjects studied so that they outline a wide range of key competences at the end of the cycle. The present research seeks to find didactic solutions, experimentally confirmed, transposed by the application of dynamic games, with the goal of improving the speed motor quality cumulative with the consolidation of the competences formed within other disciplines, thus, capitalizing on the multifunctional solution of new learning situations. The study was applied to 54 students from 3rd and 4th grades in rural areas, divided in 2: control group and experimental group. During the school year 2021-2022, the experimental group went through the program containing integrated dynamic games for the development of speed motor quality, solving in the same time certain requirements through interdisciplinary approaches. The obtained results confirm the validity of the hypothesis by improving more obvious the speed motor quality of the students from the experiment group as a result of the implementation of integrated dynamic game program. The study also highlights that a reorganization of activities must be made so that the student can demonstrate interconnections in order to respond promptly to the tasks imposed by the future society.

Key words: *speed motor quality, integrated dynamic games, primary school.*

STUDY ON THE IMPORTANCE OF STUDENTS' PARTICIPATION IN ONLINE PHYSICAL EDUCATION AND SPORT ACTIVITIES

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Abstract

Returning to the online teaching-learning stage of physical education and sport during the pandemic, we want to highlight its importance as well as the impact of physical exercise on the body of primary school students. The aim of the paper consists in selecting the most accessible physical exercises in online teaching on students in grades III and IV. Objectives of the paper: Awareness of students on practicing physical exercise even in the online system; identifying the most accessible physical exercises for the elaboration of methodical sequences of teaching-learning; Identification of differences between physical exercises taught online and on site by students. Hypothesis of the paper: Which of the objectives of Physical Education and Sport will be achieved through the awareness of the practice of physical exercise online by students? Teaching physical education and sport online, compared to the other subjects in the curriculum, involves a special approach to how to conduct lessons.

Keywords: *participation, students, activities, online, sports.*

DEVELOPMENT OF COORDINATION ABILITIES IN SECONDARY SCHOOL STUDENTS BY USING THE MEANS OF RHYTHMIC GYMNASTICS IN PHYSICAL EDUCATION AND SPORTS LESSONS

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Abstract

"The Development of Coordinative Abilities in Secondary School Students by Using the Means of Rhythmic Gymnastics in Physical Education and Sports Lessons", is a study that wants to become a source of information, development, and applicability in life for both students and for teachers. The main purpose of the theoretical approach will be to observe the development of coordinative abilities in secondary school students by using the means of rhythmic gymnastics in Physical Education and Sports lessons, because I consider it is an essential element for the socio-professional integration of the child, for the physical development and coordinative capacities, by using a special programme for the development of coordinative

capacities. To modernize the physical education lesson, the use of means such as those specific to rhythmic gymnastics for the development of coordination capacities, the development of motor skills can be very beneficial, due to the use of a wider palette of exercises that can contribute to the multilateral development of this capacity.

Keywords: *coordinative abilities, rhythmic gymnastics, exercises.*

THE INTERACTIVE SIDES OF PSYCHOMOTOR SKILLS IN PRIMARY SCHOOL CHILDREN

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Abstract

Physical education, as part of general education, pursues to achieve certain objectives, derived from the educational ideal, formulated at some point by society for which the subjects taking part in this kind of activity are being trained. Physical education, as a component of general education, contributes to the development and improvement of the child in terms of motor skills; stimulating the intellectual activity and certain affective processes; developing certain group relations; activation of certain psychical processes; developing some skills and qualities in the work process; refining the body organs, functions, apparatuses; refining certain particular notes which appear in the activity of certain organs, apparatuses, processes, as an effect of practising physical exercise; sense of the ball, sense of rhythm, of tackling, peripheral vision, tactical thinking, motor memory, kinesthetic sensations, etc. Among the general objectives that physical education proposes to achieve is also the one concerning the harmonious development of human personality by influencing both in terms of prophylaxis (prevention of negative outcomes), and remedial (remedying the negative traits which can appear at some point).

Keywords: *action, elementary school, psychomotor capacity, optimization, strategy.*

STUDY REGARDING IMPLEMENTATION OF THE MOMENT OF PSYCHOMOTRICITY IN THE PHYSICAL EDUCATION CLASS IN THE PRIMARY SCHOOL

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Abstract

Psychomotor education will always be an important component in achieving a progressive autonomy of the child in relation to the world of others (Vayer, 1992). The study of movement and the relationship between motor and psyche has been an issue of permanent interest to theorists from different fields, philosophers, doctors, psychologists. The hypothesis of the experimental research approach was that the implementation of a program model with staggered psychomotor means in learning units will determine the improvement of the students' psychomotor level. The design model with psychomotor content includes the means, applicability directions and accessories specific to psychomotor and to be implemented with the aim of improving the psychomotor level of the participants in the experiment. The learning units had 6 lessons each for gross motor components, hand-eye coordination, reaction and agility, and ambidexterity, and 8 lessons for static and dynamic balance. During this "moment of psychomotricity" the activities proposed in the learning units with specific psychomotricity themes were practiced. This moment represented 20 minutes of the total lesson time. The means proposed to the students were divided into 3 categories, namely means practiced individually and in pairs, workshops and relays and movement games. The psychomotor acquisition validation test was the "Bruininks-Oseretsky Test" version II (BOT-2). Given the special nature of this test, data collection spanned 2 weeks during which 8 students were tested per day, including Saturdays and Sundays. The results of the final testing led to the conclusion that by implementing a psychomotor content in the physical education lesson at the primary level, it can improve the psychomotor development of the students and also the recovery of the psychomotor development deficit found at the initial assessment.

Keyword: *physical education, students, psychomotricity, primary school, evaluation.*

THE IMPACT OF THE COLPBALL GAME ON PEOPLE WITH DOWN SYNDROME IN ROMANIA

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Abstract

This paper presents the validation of the training materials used in practicing the Colpbol game for people with intellectual disabilities and developed within the Erasmus+ project no. 623073-EPP-1-2020-1-ES-SPO-SCP, named "EU-COLPBOL" -

Implementation of COLPBOL sport at European level as a tool to improve the quality-of-life of persons with intellectual disabilities. In Romania, University of Craiova together with ALDO-CET validated the EU-COLPBOL training materials designed by Eu-Colpbol Consortium. An example of good practice was the organization of the support training workshops simultaneously with the training hours for sport professionals and athletes with Down syndrome and autism. People involved in the validation action were 20 people with Down syndrome, 6 sports professionals and 16 supports. Once/week during all the project period, they practiced the exercise developed in the materials created in the framework of EU-Colpbol project. At the end of the project all participants provided feedback by completing a questionnaire on the impact of the materials developed by the consortium. According with the results of the survey, the participants acquired different competences that allow them to actively participate in the game. They all improved their quality of life, practicing this sport with great pleasure, being more cheerful, more dynamic, and eager to do more sports. The level of inclusion has increased, both athletes with ds and students feeling very good together at training and playing.

Keywords: *Colpbol game, Down syndrome, Eu-project.*

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THE IMPACT OF PHYSICAL EXERCISES ON THE PSYCHOMOTOR CAPACITIES OF MIDDLE SCHOOL PUPILS

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Abstract

Current physical education curricula are full with individualized physical exercises and sports training, aimed at the independent development of motor qualities such as strength, speed, endurance etc. This leads to a discomfort for pupils, followed by invoking reasons to avoid participating in physical education and sport activities. In this context, we propose ways to improve the instructive-educational process of the physical education discipline at secondary level regarding polyvalent psychomotor training. The aim of the research is to identify the adolescent's avoidance causes from physical education lessons and to determine the means of improving students' satisfaction versus physical education. The present research is of ascertaining – ameliorative type, carried out on a sample of 15 teachers and 180 pupils from secondary classes in the Secondary School "Alexandru Ioan Cuza" and the Secondary School no 10 Bacau, Romania, between March 1, 2022 and June 10, 2022. The methods used in the research included: the analysis of the specialized literature, the diagnosis questionnaire, the mathematical-statistical method. The main conclusions refer to the identification of the passionate fields and the preferences for sport of the pupils, the argumentation of the need to introduce in the physical education and sports classes the competitive sports games, which, besides the training of some motor qualities, ensure an extremely complex set of psychic sentimental, emotional, volitional and cognitive nature acquisitions.

Keywords: *physical exercises, sport, psychomotricity.*

THE SHARE OF SPORT AND PHYSICAL EDUCATION TOPICS IN THE SOCIAL MEDIA COMMUNICATION OF THE ROMANIAN UNIVERSITIES

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Abstract

Sport education is important to society and significant efforts have been made for finding the best sport related curriculum in schools and universities (Houlihan and Green, 2006). Among several benefits of the sport and physical education, the positive impact on the affective and cognitive development, on the social integration and on the formation of a healthy lifestyle have been considered the most important (Bailey, 2006). Recent studies (Gerdin and Pringle, 2017; Ratten and Jones, 2018) emphasized that physical education is not able any more to achieve its aims and new public policies should be developed. While shaping new perspectives on the physical education development, the social media communication is one of the strategic aspects that need to be solved. By using content analysis on websites and social media communication channels of universities, the current study explores the prevalence of the physical education and sport topics among other topics. The preliminary findings suggest that sport and physical education have a modest share in the overall content disseminated by universities in social media, and that there is much room to improve the reputation of this field among students and stakeholders.

Keywords: *physical education, sport in universities, social media communication.*

Formal and non-formal motor activities

STUDY ON SOCIAL INVOLVEMENT AND CIVIC ATTITUDE FOR PEOPLE BETWEEN 15-64 YEARS OLD FROM TARGOVISTE TOWN

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Abstract

Supporting the practice of sports and encouraging the population in order to practice neighborhood sports activities, should represent important objectives for the local authorities of Târgoviște Municipality. The purpose of the present study is to identify what was the degree of social involvement and civic attitude in people aged between 15-64 years from the Târgoviște Municipality. In this research it was used a questionnaire with a content of 12 items, tool aimed at assessing the social profile of the respondents. In this study 217 people participated, 208 were male and only 9 are female. The subjects were divided into 4 age categories, as follows: between 15 and 24 years old – 148 participants; between 25 and 44 years – 47 participants; between 45 and 54 years old – 9 participants, and 13 participants between the ages of 55 and 64. The results of the research highlighted the fact that, in general, participants do not get involved in the life of the community they belong to, they do not participate in actions that are intended to improve the quality of life of the neighborhood in which they live and they do not accept the idea of volunteering in such actions.

Keywords: neighborhood sport, socialization, questionnaire.

HEART RATE DYNAMICS IN ADVENTURE EDUCATION ACTIVITIES

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Abstract

The specific activities of adventure education are aimed at non-formal education means that develop the motor, social, personal, educational and recreational components in a multilateral way. The study involved the implementation of an experimental programme in summer school camps and the identification of the influence of heart rate by following the type of route and time taken. The test group consisted of 112 students aged 11 to 14 and the implementation of the program was in August 2022. The targeted activities in the programme were: suspended course, hexagon with balance games, climbing panel, applied trail and slackline. Standardized Ruffier and Denisiuk tests were used to identify data for statistical analysis. Statistical analysis of the recorded results indicates significant differences between the tests, the highest being 2.49 bpm for girls (Ruffier) and 1.44 sec for boys (Denisiuk). The methodological operational approach of the research through the proposed program of activities identified statistically significant differences ($p < 0.05$) which validates the proposed novel experimental program for the development of motor and functional skills.

Keywords: adventure education, recreational activities, heart rate.

PHYSICAL EXERCISE AS LEISURE ACTIVITIES IN YOUTH'S LIVES

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Abstract

Introduction. Despite the known benefits of physical activity, there is a worldwide trend towards less daily physical activity. According to the latest Eurobarometer, 63% of the population of our country never do physical exercises or sports, placing them at the bottom of the ranking of EU countries. The present study aims to identify the share of physical activities in the free time budget of young people. Thus, it is desired that, through a sociological investigation, to investigate whether young people in the Oltenia area spend their free time in an active way. Methods. The research was carried out between April and June 2022 and consisted in the development, transmission and interpretation of the data of a questionnaire applied in the online system, on the google.doc platform. The questionnaire contained 15 items referring to the free time of young people, which were answered by 70 young people under conditions of anonymity. Results. Most respondents exercise occasionally in their free time, with frequency of exercise positively correlating with perception of physical appearance ($r = 0.45$, $p < 0.01$).

Keywords: leisure activities, youth, physical exercise.

THE EFFECTS OF TWO PHYSICAL EXERCISES PROGRAMS ON FITNESS IN OVERWEIGHT CHILDREN AGED 9–10

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Abstract

Our purpose was to determine the effects of continuous aerobic training versus aerobic-anaerobic training on fitness in overweight children aged 9 to 10 years. Material and Method. Forty subjects, randomized in two study groups, performed two exercise programs during 24 weeks, 3 sessions weekly. Group I (n=20) performed 5min of warm-up, 40min at 60–70% intensity, 5min of active recovery/session. Group II performed 5min warm-up, aerobic-anaerobic exercise (20minx2), 10min of active recovery. Results. At baseline and post-intervention was evaluated the nutrition status (weight, IMCz-score) and the physical fitness - Flamingo balance test (FT), sit-and-reach test (SRT), handgrip strength test (GHT), standing long jump test (SLJT), bent arm hang test (BAHT), 40m sprint test, 6minutes' walk test (6MWT). Results. Both groups had a significant improvement of IMCz-score ($p<0.0001$). Group I experienced a significant decrease in body weight ($p<0,05$), a significant improvement of 6MWT ($p<0,0001$) and of FT ($p<0.05$). Group II had a significant improvement ($p<0.0001$) of SLJT, STFT, HGT and BAHT. Conclusion. The results show an improvement of IMCz-score of both, aerobic and mixt, exercises programs, with a superior effect on weight subjects of aerobic continuous program. The effect of mixt exercises was limited on weight but superior on muscular fitness.

Keywords: *overweight children, fitness, exercise.*

HEALTH PROMOTION IN BULGARIAN BALNEOTHERAPY CENTERS

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Abstract

Following Johnston, Puczkó, Smith, and Ellis (2011), Hitz et al. (2014) define wellness tourism as: 'involving people traveling to a different place to proactively pursue activities that maintain or enhance their personal health and well-being, and who are seeking unique, authentic or location-based experiences or therapies that are not available at home'. The Bulgarian National Tourist Register lists the certified centers according to Ordinance No. 04-14 of October 9, 2019 on the terms and conditions for certification of "Balneotherapy (medical SPA) center", "SPA center", "Wellness center" and "Thalassotherapy center". The present study reveals the possibilities for health promotion by analyzing the services offered in 51 certified balneotherapy centers in Bulgaria.

Keywords: *healthy lifestyle wellness tourism.*

SURVEY OF USERS INTEREST IN INITIATIVES RELATED TO THE EUROPEAN PROGRAM HEALTHY LIFESTYLE 4 ALL

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Abstract

The European Commission Healthy Lifestyle 4 All (HL4A) program aims to link sports and active lifestyles with health, food, and other policies. Healthy Lifestyle 4 All demonstrates the EC's commitment to promoting healthy lifestyles among all generations and across different social groups. HL4A is guided by the position that everyone can benefit from activities that improve health and well-being. The present study presents the attitudes of youth, corporations, and start-up companies for their involvement in initiatives related to the three pillars of Healthy Lifestyle 4 All, namely: Improved awareness of healthy lifestyles among all generations. Easy access to sports, physical activity and healthy eating. A comprehensive holistic approach linking food, health, well-being, and sport.

Keywords: *health, well-being, sport.*

A STUDY ON THE USE OF THE BALANCED SCORECARD – STRATEGIC MANAGEMENT TOOL**Zanfir Ciprian, Mindrescu Veronica, Cosoreanu Dumitru Marius**

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Abstract

The present study followed the use of the Balanced Scorecard tool (BSC), a management tool that allows managers to identify the company's vision and strategy and translate them into performance indicators (KPIs). The Balanced Scorecard (BSC) can be used to express ideas on how to improve operational activity by building organizational objectives and targets and proposing courses of action to achieve them. The study focused on the search of national and international literature by accessing databases such as Web of Sciences, ProQuest, Ebsco, Scopus, DOAJ, Routledge, Oxford University Press, Google academics. A total of 68 publications were centralized that included BSC as a management tool. After analysis the articles were classified by field of activity to see if the tool is also used in the sphere of fitness activities. The paper synthesizes the results of previous research, as this concept is necessary not only for the organization itself, but also for future generations and society. The results of this research show that the implementation of the Balanced Scorecard in some branches in Romania has an important role as a non-financial tool for measuring performance and in implementing strategies for constant and sustainable development.

Keywords: *Balanced Scorecard, Strategic management, Public institutions, Private institutions, performance.*

POTENTIAL BENEFITS AND RISKS GIVEN BY THE VIRTUAL REALITY OF THE CENTRAL NERVOUS SYSTEM**Talaghir Laurentiu-Gabriel, Coja Daniel Madalin, Georgescu Luminița**

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Abstract

Virtual reality (VR) technology has advanced rapidly in recent years and has become increasingly prevalent in the healthcare industry. One area of potential application is the use of VR in the central nervous system (CNS), where it has the potential to provide numerous benefits, such as neurorehabilitation, pain management, and cognitive enhancement. However, the use of VR in the CNS also comes with potential risks, including motion sickness, eye strain, and the potential for negative psychological effects. Moreover, the technology's long-term effects on the CNS are still unknown, and more research is necessary to determine whether it could lead to chronic CNS disorders. Overall, while VR technology has the potential to provide numerous benefits for the CNS, its potential risks must be carefully considered and addressed before widespread adoption in clinical settings.

Keywords: *virtual reality (VR), central nervous system (CNS), brain, immersive experience, perception, cognition.*

THE USE OF MARTIAL ARTS MEANS IN THE DEVELOPMENT AND SOCIALIZATION OF CHILDREN WITH AUTISTIC SPECTRUM DISORDER**Polevaia-Secăreanu Angela**

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Abstract

In a world where the number of people with autism that have difficulties in socialization and communication, is increasing annually, the tempo of social development is decreasing and in future it could stimulate unpredictable negative social phenomena. This study aims to examine the role of martial arts in the development and socialization of children with autistic spectrum disorder. Methods. To study this problem, we researched the opinions of respondents and specialists in various fields. A total of 113 people took part in the survey. Results. The analysis of the survey results showed that the level of knowledge about autism is medium, a good part of the respondents (78.57%) mentioned that they are familiar with the methods (means) used in the rehabilitation process of people with autism. The therapeutic methods and types of concrete martial arts that can be recommended for people with disorders caused by autism were highlighted. Conclusion. Integrating children through the means of martial arts will allow them to gain confidence in themselves, in their own strength, as well as to coordinate, control separate segments of the body while performing the movements from the simplest to the most complicated.

Keywords: *motor activity, martial arts, autism, survey.*

INTRINSIC VERSUS INTRINSIC MOTIVATION FOR LEISURE TIME SPORT ACTIVITIES AFTER COVID-19 PANDEMIC**Ciupitu Liliana Georgeta, Cosma Germina**

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Abstract

Recent studies showed that the COVID-19 pandemic had a strong impact on reducing the frequency of leisure time sport and exercise (LTSE) (Jaskulska, Jankowiak, Mariciniak and Klichowski, 2022). The results of these studies suggested that the impact was stronger in case of female participants in comparison with male participants, and also in case of older people in comparison with younger people (Mutz and Reiners, 2021). The present study compared the intrinsic and extrinsic motivation in a sample of participants to LTSE activities as fitness exercises. The instrument used in the survey was the Motivation for Physical Activity Measure (M-PAM) (Ryan, Frederick, Lepas, Rubio and Sheldon, 1997). The findings of the study can be used to identify differences in the level of LTSE according to variables as age and gender, and also to identify the changes in attitude towards sport and physical activity after the COVID-19 pandemic.

Keywords: *leisure time sport, intrinsic motivation, pandemic.*

Orientations and current trends in Kinetotherapy**APPROACHES AND DIRECTIONS FOR THE PHYSIOTHERAPEUTIC MANAGEMENT OF PATIENTS WITH DUCHENNE MUSCULAR DYSTROPHY****Stănescu Boldeanu Ileana, Vasilescu Maria Mirela, Rusu Ligia**

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Abstract

Duchenne muscular dystrophy is a complex pathology that still requires research work. This pathology mainly produces changes in the cardiac and skeletal muscles, but also numerous secondary conditions (such as bone deformities, or respiratory and heart failure). Although there is no curative treatment for this condition, multidisciplinary approaches centered on the patient's needs improve quality and length of life. Physiotherapy is important in the treatment plan, achieving good results in the short term; respiratory physiotherapy's target is respiratory re-education, with the aim of avoiding the occurrence of respiratory insufficiency. The management of cardiac manifestations aims at early treatment of symptoms, when they appear, but the most important is the management of osteo-muscular manifestations, which prevents the occurrence of specific contractures, scoliosis, and improves the ambulation of the patient. The management of neuro-psychiatric disorders is also not to be forgotten, as patients with DMD seem to have an increased incidence of attention deficit disorders. These therapies are in continuous development (as new data become available) and are the keystone of DMD management today. These multidisciplinary approaches can lead to good long-term outcomes by helping patients with muscular dystrophy reduce muscle damage, detect and treat heart failure early, and manage cognitive impairment as best they can.

Keywords: *Duchenne muscular dystrophy, physiotherapy, recovery.*

SECONDARY SCOLIOSIS IN MUSCULAR DYSTROPHY – EARLY INTERVENTION**Stănescu Boldeanu Ileana, Vasilescu Maria Mirela, Rusu Ligia**

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Abstract

Progressive muscular dystrophies (PMDs) are complex neurological conditions and lead to irreversible motor and systemic impairment. Patients need a plan adapted to their needs, as the disorders are multiple, but the most common spine complication that occurs, is scoliosis. Scoliosis leads to impaired walking and respiratory impairment over time, it is a progressive condition and starts with the loss of ambulation. Together with the rib cage deformity, scoliosis generates the risk for dilated cardiomyopathy. Naturally, the prevention of scoliosis is one of the main goals of the treatment plan, with the help of orthotics and walking aids. However, once installed, the progression of scoliosis must be slowed down as much as possible, with physical therapy techniques, which maintain and prolong the patients ability to move. The kinetic program follows practices for correct posture, good muscle tone and breathing exercises. Exercises included in recovery programs can give good long-term results, but they must be integrated into the patient's lifestyle. Kinetic techniques are complemented by other adjunctive therapies, such as massage, and, where necessary infrastructure is available, even hydrokinetotherapy, all under the supervision of a recovery specialist.

Keywords: *muscular dystrophies, scoliosis, physical therapy.*

THE IMPORTANCE OF NEUROPSYCHOMOTOR DEVELOPMENT BETWEEN 0-2 YEARS**Curițianu Ioan Maria, Stark Bogdan Nicolae**

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Abstract

The present research wanted to demonstrate and support the importance of the neuropsychomotor development in optimal conditions of a non-disabled child in the first 2 years of life as well as the importance of the intervention through a series of stimulation techniques, methods and movement games. In order to carry out the research, a series of initial, intermediate and final tests were used to see the evolution in the age stages. The tests used were: evaluation of physical development, evaluation of archaic reflexes, evaluation of pre-tension, evaluation of balance, Denver Test- evaluation of slowing of internal development and Portage Test - evaluation of chronological and biological age of the child. Following the application of the therapeutic techniques and methods, the objectives set either at the general level or at the level of each stage have been met to a satisfactory extent.

Keywords: *newborn, harmonious development, movement games.*

THE ROLE OF PHYSIOTHERAPY IN THE DEVELOPMENT OF PHYSICAL AND PSYCHOMOTRICAL SKILLS OF PUPILS OF YOUNG SCHOOL AGE WITH OBESITY**Corman Mariana**

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Abstract

One of the important health problems of modern society is obesity in children. Obesity leads to chronic and persistent disorders in the cardiovascular and respiratory systems, musculoskeletal and immune systems. All this gives rise to a constant trend of deterioration of the health status of children with obesity of young school age. This problem concerns not only medical workers, but also teachers working in the school education system. In school, physical education presents an integral part of the educational activity, occupying an important role in the physical development and motor capacities of the students. The presence of excess weight does not allow the child to fully realize himself in the physical education class. Obese children often experience physical and mental stress due to the fact that they cannot perform the amount of activity that healthy children perform. Physical education teachers are responsible for the state of health and its strengthening in all students, through physical exercises of different orientation and intensity, including those with obesity. In this sense, it is necessary to carry out a differentiated and individualized approach to students with obesity in the process of teaching physical culture.

Key words: *obesity, pupils of young school age, physical development, motor capacities, physiotherapy.*

THE ROLE OF OCCUPATIONAL THERAPY IN PEOPLE WITH MENTAL HEALTH PROBLEMS**Anghel Mihaela, Boțoc Luiza Dumitra**

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Abstract

Unfortunately, in our country, in some situations, the level of occupational therapy activities is limited to the precarious material conditions in different types of institutions. Despite the current improvements, there is still an acute need for adequate spaces and materials to carry out quality occupational therapy activities. The presence of these negative aspects, to which is added the lack of qualified personnel in the field, diminishes the qualities of the recovery process in the institutions. The scientific challenge that is the subject of this paper is to highlight the role of occupational therapy in exploration specific resources for institutionalized persons, necessary for the development of autonomy. The study involved 20 clients from care and assistance complex, Bacau, with mental disorders for a period of 3 months. The objective of the research is to implement an intervention program, through remedial activities, that will contribute to direct involvement in daily life for people with mental health problems. The main conclusion of the research is that applying remedial activities adapted to the specific need of the client, the components of occupational performance can be improved, by increasing the degree of involvement in daily activities to institutionalized people.

Keywords: *occupational therapy, client-centred, remedial activities, mental health.*

BIOMECHANICAL ASPECTS REGARDING RESTORATION OF SHOULDER STABILITY IN ATHLETES**Anghel Mihaela**

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Abstract

Although the recovery of the body after exertion or post-trauma is particularly important, in contemporary sports, for various reasons, it is often not given the necessary time. The main objective of the research was to study the biomechanical particularities of the shoulder that ensure mobility and stability in order to recover post-luxation. The research activity was carried out on two athletes, during 8 months, and we followed the restoration of muscle imbalances and the biomechanical analysis of the unstable shoulder. The objectives of the research were to select the most effective methods and means of physical therapy, by which to restore the stability of the post luxation shoulder, in athletes. As working methods we used exercises performed in a closed kinematic chain and neuromuscular and proprioceptive facilitation techniques, balancing the forces of the deep muscles. As conclusions, it can be said that isometric work in a closed kinematic chain and through neuromuscular and proprioceptive facilitation techniques, we can balance the stabilizing muscle forces at the level of the shoulder joint. Through the recovery sessions performed, the muscle imbalances were diminished by the considerable increase in the muscle strength of the per articular muscles.

Keywords: *physical therapy, stability, shoulder.*

THE EFFECTS OF COMPLETE DECONGESTIVE THERAPY ON BREAST CANCER RELATED LYMPHEDEMA**Baltag Oana Maria, Singuran Andra Ioana, Apostu Mihaela, Cordun Mariana**

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Abstract

Breast cancer related lymphedema is the most common side effect of the treatment applied for breast cancer. There are four stages of evolution of the lymphedema and the most frequent treatment used is complete decongestive therapy (CDT). CDT consists of manual lymph drainage, multilayered compression bandages and exercises to stimulate the muscles of the upper limb on the side of mastectomy. The aim of this study is to analyze the effectiveness of CDT in the treatment of breast cancer related lymphedema in order to reduce the volume of lymphedema. We included 10 subjects aged between 33 and 55 years old. We measured the circumferences of the upper limb at the following levels: metacarpal-phalangeal joint, distal radio-ulnar joint, 10 cm distal to the lateral epicondyle, 5 cm proximal to the elbow joint and 10 cm proximal to the lateral epicondyle. The treatment was initially applied for 10 consecutive days and later twice a week for 2 months. After the final assessment, the data were processed statistically. The average value at the metacarpal—phalangeal joint level decreased by 1 cm, at the distal radio-ulnar joint level the circumference decreased by 1.7 cm. Measurements performed 10 cm distally from the lateral epicondyle show a decrease in average by 2.9 cm. Following the measurements performed 5 cm proximal to the lateral epicondyle; we noticed a decrease in the average by 2.9 cm. The circumference of the arm evaluated at 10 cm proximal to the lateral epicondyle shows a decrease of the average by 2 cm. In conclusion, we found that the evaluated circumferences decreased, which demonstrates the effectiveness of the complete decongestive therapy.

Keywords: *breast cancer, lymphedema, complete decongestive therapy.*

STUDY REGARDING THE IMPORTANCE OF PATIENTS ASSESSMENT WITH STATIC AND DYNAMIC BALANCE DISORDERS OF PERIPHERAL VESTIBULAR ETIOLOGY**Solomon-Pârțac Maria Ștefana, Cojocariu Adrian, Cozma Sebastian**

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Abstract

The peripheral vestibular syndrome is a condition that can affect the quality of life, by causing deficits such as dizziness, instability and balance disorders. In order to be able to implement a vestibular rehabilitation protocol intended for patients with peripheral vertigo, it is necessary, firstly, to identify the vestibular deficit for describe appropriate objectives, after which we aim to achieve them through effective therapeutic means and methods. Through this study, we aim to highlight the importance of patients assessment with static and dynamic balance disorders of peripheral vestibular etiology, by using the Synapsys posturography device. This is an innovative technological equipment, provided with high-performance software, which allows capturing the center of gravity in both static and dynamic conditions. The research subjects were represented by seventeen patients diagnosed with peripheral vestibular syndrome, twelve female and five male, with an average age of 64.58 years. In order to carry out this research, we started from the hypothesis that the Synapsys device will give us the opportunity to identify

a series of particular elements regarding the balance parameters, as well as determine an association between them, aspects that will later allow us to implement an innovative and effective vestibular rehabilitation protocol.

Keywords: *peripheral vertigo; vestibular assessment; posturography; rehabilitation.*

STREAMLINING EVALUATION METHODS OF OBESITY AND OVERWEIGHT IN CHILDREN

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Abstract

This research provides benchmarks for researchers, clinicians, and physical therapists to assess obesity in different individuals and populations. We have identified several obesity and overweight assessment tools, along with their practical applications and interpretations. As a result, it is important to accurately assess the degree of excess weight in children. Emphasis is placed on differences by age, sex, weight status, and the many interrelated variables that contribute to the development and/or exacerbation of obesity. We detail the reasons why some tools are limited in these studies and guide designing more effective assessments, including early obesity prevention. The diagnostic indicators of obesity differ depending on their ease of application. The recovery program will be directed depending on the type of obesity, as an increase in lipolysis will be required in that area. Lack of weight loss of less than 10% in a 6-12 month interval, then a re-evaluation and a change in the recovery program are required.

Keywords: *overweight, obesity disease, physiotherapy, evaluation tools, BMI, waist circumference.*

STABILOGRAPHIC PARAMETERS PREDICTIVE OF THE RISK OF FALLS IN PATIENTS WITH POST-STROKE HEMIPARESIS DURING THE RECOVERY PERIOD

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Abstract

Patient falls after a stroke are among the most common accidents in medical facilities and at home. Postural instability and frequent falls, which are caused by this, can cause a variety of physical and psychological problems in the patient after a stroke in the rehabilitation period. This can have a negative impact on the quality of life of patients who have suffered a stroke, which can result in various injuries such as bone fractures, dislocation, and epidural subdural and other hematomas. Falling frequently causes increased fear, which influences physical activity limitation and, in some cases, complete social isolation. This study aims to identify predictive stabilographic parameters for risk assessment of falls in patients with hemiparesis after stroke in the late rehabilitation period.

Keywords: *stroke, falls, hemiparesis, physiotherapy, stabilographic, rehabilitation.*

REHABILITATION OF THE ELDERLY WITH PHYSICAL DECONDITIONING SYNDROME

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Abstract

In this article we describe the methods of rehabilitation and physical deconditioning syndrome of the elders, the influence of physical training to improve the quality of life. Aging is a complex process in which a multitude of pathological, genetic and lifestyle factors are involved and which is frequently associated with a reduction in functional capacity and the presence of chronic diseases. Physical inactivity and the presence of a sedentary lifestyle represent a significant risk factor affecting the health of the elderly. The geriatric patient is a biologically aged patient who presents an acute risk of losing his independence, following acute and/or chronic pathologies, with the limitation of physical, physiological, mental and/or social functions. The ability to perform the basic activities for ordinary independent living is compromised, diminished or lost, so the physical deconditioning syndrome occurs. The person in question has increased needs for rehabilitation, psychological and physical care to avoid partial or total loss of independence.

Keywords: *geriatric patient, decondition syndrome, rehabilitation, physical activity, life quality.*

THE REHABILITATION MANAGEMENT EFFICIENCY ON THE UPPER LIMB AFTER MASTECTOMY**Baltag Oana Maria, Apostu Mihaela, Cordun Mariana, Singuran Andra Ioana; Xhardo Kristo**

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Abstract

Introduction: breast cancer treatment can lead to disabilities that impact the quality of life and hinder the activities of daily living. After the treatment the patients show multiple side effects such as: upper limb decreased range of motion, lymphdema, pain, anxiety, depression, premature menopause, nausea, insomnia. The role of physical activity is to enable patients to reach, and maintain, the optimal level of functionality from a physical, intellectual, psycho-social and spiritual point of view. The aim of this study is to verify the efficiency of an individualized exercises program applied to increase the upper limb range of motion. Methods: we evaluated the range of motion of the shoulder, elbow and wrist by goniometer. We included 25 subjects (n=25) aged between 33 and 60 years old, with radical mastectomy, who underwent chemotherapy and local radiotherapy. The exercises were practiced three times a week, for 3 months. Results: at the level of the shoulder, the flexion increased by 31.9°, the extension increased by 14.3° and the abduction increased by 41.3°. The flexion movement at the level of the elbow increased by 19.6°, while the extension decreased 5.5°. At the wrist level the mean value for the flexion and extension increased by 41.7°, respectively by 22.7°. In conclusion, the range of motion of the upper limb increased which shows that the exercises program is effective.

Keywords: breast cancer, quality of life, individualized exercises.

KINETOTHERAPY IN LOW BACK PAIN CAUSED BY PYRIFORM MUSCLE SYNDROME**Zavalisca Aurica, Popescu Mihai Vasiliță, Popescu Ioana**

USEFS, Chisinau, Moldova

Abstract

The recovery of a patient with piriformis muscle syndrome is a complex job, in which the physiotherapist has a special role and the physical therapy means through the actual movement, is the only therapeutic way to restore the functionality of the spine. Lumbar pain affects the lower part of the spine, and the pain can occur in the case of several conditions such as spondylosis deformans or lumbar arthrosis /osteoarthritis or lumbar hypertrophic arthritis.

The efficiency of kinetic methods has a good possibility of improving the quality of life of patients, reducing and removing pain as a cause, not only as a symptom, also improving the function of the spine joint, balancing the center of gravity and balance of the human body. Physiotherapy has an excellent possibility of improving the patient's quality of life, reducing, diminishing or eliminating pain and improving joint function.

Keywords: Piriformis syndrome, lumbago, kinetotherapy techniques, mobility, stability.

ASSESSMENT OF GERIATRIC FOOT USING THE BAROPODOMETRIC P-WALK PLATFORM**Hăisan Petronela Lăcrămioara, Monea Dan, Grosu Vlad Teodor**

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Abstract

The foot arch index is a valuable instrument for assessing foot arch morphology and spotting structural issues that might cause foot pain, instability, and other musculoskeletal conditions. The purpose of this study was to identify the foot typology in senior individuals using baropodometry as an evaluation tool. 20 individuals, with a mean age of 74,35 years (15 female and 5 male), were enrolled in the study. They were split into two groups: 10 old people without neurological illnesses and 10 elderly people with Parkinson's disease. Methodology: In static and dynamic conditions, the plantar arch was assessed using the baropodometric P-Walk platform (BTS, Italy). By utilizing the P-Walk method to assess the 12 variables in both static and dynamic ways, we discovered that there are no statistically significant differences between the two groups. Although the majority of research claims that as individuals become older, their plantar arches droop and they get flat feet, our static examination revealed that the participants had pes cavus feet. Just 15% of the elderly without neurological problems have a normal foot, while the remaining 85% have a pes cavus. 25% of participants in the Parkinson's disease group have normal feet, 5% have flat feet, and 70% have pes cavus.

Keywords: elderly, foot typology, Parkinson, baropodometry.

ROLE OF PERFORMANCE PHYSICAL ACTIVITY OVER NEUROPHYSIOLOGICAL PATTERN

Enescu Bieru Denisa, Albină Alina Elena, Brăbiescu Călinescu Luminița, Albină Andreea Mihaela, Albină Constantin
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Abstract

The objective of the study was to prove the role of performance physical activity over neurophysiological pattern, at volleyball and handball players, by assessing and compare alpha and beta electroencephalographic classic rhythms waves.

The tested subjects were represented by 21 professional athletes, 11 which practice volleyball and 10 which practice handball, with ages between 18-22 years, active for a medium of 8 years in one of the sportive activity, with average heights and weights and different use of superior limbs. The mentioned EEG waves obtained during some activities (successive relaxation and contraction of both fists), performed by the athletes, were measured using the Nihon-Kohden EEG-9200 device. Power spectrum for beta frequency band determined a perfect synchronization regarding studied moments, both for dominant and non-dominant hemisphere at handball players. Alpha EEG activity for volleyball players, was lower in the dominant hemisphere, in comparison with the handball one, in contrast with the non-dominant hemisphere, for which the results were quite opposite. So, were obtained different neurophysiological patterns, specific to each sportive discipline and correlated with the test moments, depending on the activated cerebral area that proved the role of performance physical activity.

Keywords: *neurophysiological pattern; physical activity; EEG' waves.*

MUSCULAR ADAPTATIONS DETERMINED BY PROFESSIONAL TRAINING

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Abstract

The study purpose was to point out the muscular adaptations determined by professional training, by comparing the recorded values of motor response parameters, latency, duration, amplitude, area and interval. The tested group was formed of 19 professional sportsmen, 17 females and 12 males, with an average age of 19 years, which practiced different sports, fence and volleyball for at least 5 years, sports where the use of upper limbs is different. Was recorded the motor response, with surface electrode, by stimulating the median nerve, at three levels, successively, at both superior members, with a Nihon-Kohden MEB 9100 device and were statistically analyzed and compared, by using the Student and Pearson tests. For fencers, by stimulating right arm, at proximal level, were reported important differences for area parameter, also, significant statistic differences for athletes which practice volleyball, were presented for amplitude and area, at stimulation of bicipital groove and elbow of left upper limb. In conclusion, were remarked muscular adaptations, characteristic for each studied sports, due to morphofunctional muscles changes, determined by professional training.

Keywords: *muscle; professional training; motor response.*

REHABILITATION INTERVENTION TO RESTORE THE FUNCTIONALITY OF THE SHOULDER WITH SCAPULAR FRACTURE - CASE REPORT

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Abstract

This report present an individualized physical therapy program and the therapeutic results for a 36 years man with a posttraumatic scapular fracture without dislocation of the shoulder joints. The antero-posterior view of radiologic assessment after the trauma set the diagnosis: left scapular body fracture with minimal displacement and without ribs fractures. Because the glenoid fossa was intact, conservative treatment was recommended by the orthopedist. At the first clinical assessment the physical therapist note the level of pain (VAS = 5 at rest and 9 or even 10 when he try to move the arm) and a localized tenderness and bruising over the fracture site on palpation. Shoulder motions examinations prove restriction in all directions, patient report functional arm activities dysfunctions that interfere with his life current activities.

The rehabilitation was conducted in an outpatient clinic from Craiova under direct physical therapist supervision for 12 weeks. It starts mainly with Codman pendulum exercises and after two weeks the patient was advised to do active and passive range of motion exercises. At the end of the follow up period the level of pain was considerable decrease. Despite the functional deficit from the beginning of the rehabilitation program, normal function was restored for the left arm after 3 month of individualized physical therapy. The patient was fully implicated and cooperative during the physical therapy session.

Keywords: *scapula body fracture, rehabilitation management, physical therapy, functionality.*

CORRELATION BETWEEN BODY MASS INDEX, CONSTITUTIONAL TYPE AND BODY SHAPE**Făgăraș Pia-Simona, Teodorescu Silvia-Violeta, Anca Bacarea**

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Abstract

The health status of a population is a particularly important indicator. and this is also assessed by calculating the Body Mass Index (BMI). The higher it is ($> 30 \text{ kg/m}^2$), the more there are health risks. This study aims to investigate the level of health related to body mass index, constitutional type and body image, among the population of the Mures County area. The data obtained are analyzed and interpreted according to gender. The method used to collect the information was the survey based on the questionnaire. The data collected from a no. of 517 subjects (49% F and 51% M) aged between 18-62 years, were analyzed using SPSS version 22. Following the data analysis, Pearson Correlation for ($p \text{ value} = 0.05$) it was found that there are correlations of different intensities between BMI and the constitutional type, the age of the subjects for both males and females

Keywords: *BMI, constitutional type, body shape.*

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LIGAMENT INJURY IN SPORTS ACTIVITY - ETIOLOGY, CLASSIFICATION AND TREATMENT**Bogdan Antohe, Rață Marinela, Rață Bogdan Constantin, Rață Gloria**

Vasile Alecsandri University of Bacău, Faculty of Movement, Sport and Health Sciences, România

Abstract

Ligaments are dense bundles of connective tissue that connect two bones. Together with the joint capsule, muscles and bone structure, the ligaments determine the range of motion of the joint. Depending on the anatomical site, the ligaments show variations in size, shape and orientation.. Apart from contusions and muscle injuries, ligaments are the most common causes of musculoskeletal joint pain and disability, in sports activities. Approximately 50% of musculoskeletal injuries involve ligaments. Due to the increasing mechanical joint stress developed in performance sports, the limited period dedicated to warm-up, the use of inappropriate contact surfaces and footwear, the incidence of ligament injuries is increasing. The aim of this paper is to provide a clear picture of ligament injuries. In order to do this, we divided the work into two parts. The first part, addresses the incidence, classification, and mechanism of injury. The second part, addresses the healing process, treatment and returning to sports activity. Considering the very high incidence of ligament injuries, we believe that a more detailed approach to the mentioned aspects is appropriate. We hope that the information provided in this review will assist specialists who manage ligament injuries in performance athletes.

Keywords: *ligament, injury, sport.***RECOVERY OF THE DIAPHYSEAL FRACTURE OF THE HUMERUS BY KINETIC MEANS****Cioroiu Silviu Gabriel**

University of Transilvania from Brasov, Department of Physical Education and Special Motricity, Romania

Abstract

Humerus diaphyseal fracture accounts for approximately 3% to 5% of all possible fractures. The callus rate of humeral shaft fractures treated conservatively is 67% to 98%. Nonunion of humerus diaphyseal fractures will cause lasting pain, impaired quality of life, and loss of function that will require surgical treatment. Traditionally, the first treatment in humerus diaphyseal fractures has been closed reduction and splinting. The indications that lead to surgical interventions are neurovascular injuries, lengthening of articular fractures, polytrauma, open fractures, pathological fractures and failure of conservative treatment. The purpose of this paper is to highlight the importance of physical exercise in the recovery of the humerus diaphyseal fracture. Fractures are a special event that requires a difficult, long-term recovery process. By using physical exercise, the aim is to return the patient to a life as normal as possible and as close as possible to the one before the trauma occurred.

Keywords: *humerus diaphyseal fracture, kinetic exercises, individualized recovery program.*

THE IMPORTANCE OF PHYSIOTHERAPY IN MULTIPLE SCLEROSIS

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Abstract

Multiple sclerosis is an inflammatory demyelinating disease of the central nervous system. Most of the lesions are at the level of the white matter or the junction of the white matter with the gray matter, with the periventricular region as the preferred topography. Multiple sclerosis (MS) is the leading cause of disability in young adults. The purpose of the research is based on the selection of kinetotherapeutic means and methods corresponding to multiple sclerosis, as well as the design of an individualized recovery program, so that patients who have suffered from such conditions, recover, adapt as much as possible from a somatoscopic point of view and functional. With the help of the elaborated program, the goal is to re-educate the balance and improve the ability to exercise, by restoring self-confidence, raising the patient's morale in order to reduce certain complications of this condition.

Keywords: *multiple sclerosis, kinetic exercises, individualized recovery program, motor reeducation.*

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