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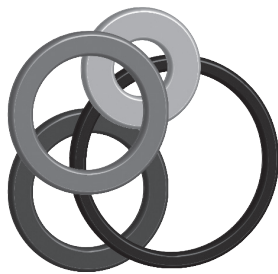


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We are pleased to welcome you to the international conference “Innovations, Achievements, Synergy and Challenges – A Bridge to the Future,” dedicated to advancing the field of sport science, taking place in Podgorica, Montenegro, on September 18–19, 2025. This event serves as a vibrant meeting point for scientists, practitioners, educators, and policymakers committed to exploring the evolving role of sport and physical activity in modern society. As sport science continues to intersect with health, education, technology, and performance, our shared goal is to foster innovation and evidence-based practices across disciplines.

A central focus of this year’s conference is the presentation of ongoing research projects and institutional initiatives that are shaping the current landscape of sport science. Participating institutions will showcase their latest studies, experimental programs, and cross-sector collaborations, offering valuable insights into both emerging trends and practical applications. This is an opportunity to share progress, exchange experiences, and reflect on the challenges encountered in real-time implementation. By highlighting current work-in-progress, the conference encourages open dialogue, constructive feedback, and new research synergies that will drive future development. Through this exchange, we aim to strengthen the scientific community and contribute meaningfully to the evolution of sport science across the region and beyond.

We extend our best wishes for a successful and inspiring conference and express our sincere hope that it will foster lasting connections and fruitful collaborations among all participants.

Duško Bjelica
Damir Sekulić
Marin Ćorluka



Abstracts from Montenegrin Sports Academy 23rd Conference Podgorica Sports Science, Medicine & Health Forum 2025 "Innovations, Achievements, Synergy and Challenges – A Bridge to the Future"

18th - 19th September 2025, Podgorica – Montenegro

Edited by Dusko Bjelica¹, Damir Sekulic², Marin Ćorluka³

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MEETING ABSTRACTS FROM MSA 23rd CONFERENCE
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Invited speakers

S1

From Lab to Road: Integrating Monitoring into Long-Term Cycling Development

Samo Rauter

Faculty of Sport, University of Ljubljana

Purpose: This presentation will explore the role of comprehensive monitoring in cycling, focusing on the integration of physiological testing, training data analysis, and long-term athlete development. **Methods:** A combination of laboratory and field-based physiological measurements was employed, including tests for maximal aerobic capacity, lactate threshold assessments, and body composition analysis. Training load was tracked using heart rate monitors and power meters. Data from cyclists across various age groups were collected and analyzed to explore the connection between test results and competition performance. **Results:** Physiological variables were strongly connected to performance in younger athletes, but these correlations diminished with age. This indicates that physical abilities play a larger role during early development, whereas in older athletes, tactical skills, mental

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readiness, and race experience become more important. The results also endorse a structured, long-term development plan that progressively introduces appropriate training loads, skills, and competition strategies tailored to each age and stage. Conclusion: Cycling offers a distinctive framework for tracking athletic progress because it generates extensive data. Nevertheless, effective performance monitoring needs a comprehensive approach that considers physiological, psychological, and contextual elements. Early assessments and ongoing tracking can inform training adjustments and talent spotting, but they should be part of a long-term, athlete-focused development strategy.

S2

Maintaining Sport Management Curriculum Relevancy with an Evolving Sport Industry

Robert C. Schneider

Department of Kinesiology, Sport Studies & Physical Education, Department of Kinesiology, Sport Studies & Physical Education

The sport industry's continued expansion across multiple sporting sectors (Chunming, et al., 2024) offers challenges for sport management preparation programs. Curriculum relevancy is dependent on courses that effectively enhance work-force competencies (Yokubjonova, 2024). In place of real-time perpetual curricular reactions to sport industry expansion, the establishment of a timeless curriculum, compatible with the broad array of sport-based employment is an appropriate approach. This presentation will outline the basis for a fully accommodating sport management curriculum where undergraduate students will gain necessary preparation regardless of variances across sport domains. The curriculum consists of a pre-established core of broad sport management courses compatible across all sectors of the sport industry in combination with a student-chosen second set of courses specific to a particular area within the sport industry. Further reinforcing the timeless nature of the curriculum are multiple field experiences and an emphasis on studying abroad, both of which are chosen by the student based on their specific sport industry interests.

S3

Prevention of cardiovascular disease in general population: Can we apply the same strategy for athletes?

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Purpose: To introduce and estimate the effectiveness of a high-sensitive troponin-I (hsTnI) guided screening program for cardiovascular disease (CVD). Methods: Existing tests for assessing the risk of CVD such as Framingham Heart Study in U.S. (FHS) or HEARTSCORE in Europe have been in use for long time, and conclusion is that elevated cholesterol and blood pressure are the main risk factors. HEARTSCORE's calculate the 10-year risk of fatal and non-fatal cardiovascular events, but these scores are applicable for healthy individuals only. People who engage in sport recreationally or professionally are often overlooked, because they are expected to be healthy. Results: A study of asymptomatic women and men between 40-70 years old, with no specific symptoms and no confirmed CVD was performed. Subjects in the moderate and high-risk class according to hsTnI, were referred to further cardiovascular diagnostic tests. In the model, this program reduced the incidence of acute CVD events by 180 per 10,000 subjects, and CVD-related mortality decreased by 40%. Conclusion: In a cost-effectiveness analysis, this strategy might reduce the CVD related burden and mortality and would likely be cost-effective. Clinical significance: HsTnI should be a part of preventative test for CVD in general population, as well as in athletes.

S4

Ecology, Natural Environment and Geolocations in the Function of Adolescents' Health and Sports: Attitudes and Motivation in Montenegro

Velibor Spalevic

Biotechnical Faculty, University of Montenegro, Study Program of Geography, Faculty of Philosophy, University of Montenegro

The natural environment of Montenegro, with its unique combination of mountains, coastline, and diverse ecological conditions, provides exceptional opportunities for the development of sports and healthy lifestyles. Adolescents are considered a key population group, since habits and attitudes formed during this stage strongly influence future choices related to health, sports, and the environment. The main objective of this study is to examine the sensitivity and motivation of adolescents in Montenegro regarding the relationship between ecological conditions, geolocations, and sports training. A questionnaire was administered to a sample of approximately 300 adolescents from different regions of Montenegro, complemented by interviews to capture qualitative insights. The research investigates how natural factors (such as air quality, landscape, and climate) and specific geolocations (mountains, seaside, and parks) are perceived as motivators for engaging in physical activities. The preliminary findings indicate that adolescents most frequently associate motivation for sports with clean air, attractive landscapes, and training opportunities in coastal and mountain areas. Differences were observed between genders and regions, with older adolescents demonstrating a higher awareness of the long-term health and ecological benefits of exercising in nature. These results provide a basis for developing sports and educational policies that integrate ecological awareness with athletic practice. At the same time, they highlight Montenegro's potential not only as a destination for professional sports preparations but also as a model of sustainable development where nature and sport complement each other.

Keywords: Adolescents, Ecology, Sports motivation, Geolocation, Environment, Montenegro.

S5

The Contribution of Montenegrin Sports Academy Publishing to the Global Academic Community; The Scientific Journals MJSSM and Sport Mont

Borko Katanic

Montenegrin Sports Academy, Podgorica, Montenegro

Scientific research plays a pivotal role in advancing knowledge, promoting innovation, and establishing evidence-based practices across various fields. Over the past decades, rapid technological progress, intensive interdisciplinary collaboration, and increasing global connectivity have driven the dynamic development of scientific achievements, enabling researchers to address increasingly complex challenges. Sport sciences represent a dynamic and multidisciplinary field encompassing exercise physiology, biomechanics, psycho-social research in sport, analysis of sports performance, and other sport-related themes. As a relatively young discipline, sports sciences has developed through a steadily growing body of research. However, the lack of a peer review process, methodological rigor, limited scientific contribution, and repetitive studies in some research may constrain the field's ability to ensure high-quality scientific research. In this context, relevant scientific journals play a crucial role by providing a platform for the dissemination of significant research findings. Leading global databases, such as Web of Science (WoS) and Scopus, are particularly important, as they set high standards for publication, ensuring the quality and credibility of scientific information. The Montenegrin Sports Academy (MSA), through its scientific journals – Montenegrin Journal of Sports Science and Medicine (MJSSM) and Sport Mont (SM) – consistently strives to uphold the highest standards and maintain quality year after year. Both MJSSM and SM have a long-standing tradition and have been indexed in the aforementioned leading scientific databases, WoS and Scopus, for the past ten years. During this period, they have published a significant number of high-quality research articles, thereby making a substantial contribution to the field of sports sciences. It is noteworthy that, alongside the scientific progress of MJSSM and SM, publication patterns have also evolved, which today include individual collaboration with authors, institutional partnerships, and cooperation through MSA conferences, all aimed at ensuring the high quality of scientific research. Our mission is, as always, to bring together leading academics and researchers to exchange ideas, share knowledge, and promote innovation in the field of sports sciences. Such collaboration will contribute to improving the quality of scientific research and enrich the global academic community with new theoretical and practical insights. The expected benefits of the collaboration will relate to improvements in the quality of research and our journals, while researchers will simultaneously gain greater visibility and recognition within the professional community.

S6**Improving Employability in Sport Through New Forms of Employment: A European Project**

Arben Kaçurri

Sports University of Tirana

As sport sector evolves, it increasingly needs a highly skilled, inclusive and professional workforce. But recruiting and keeping people with the right skills is a massive challenge. Skills shortages, especially after COVID, are prevalent, and sport has very high levels of part-time and self-employed workers; young people tend to leave the sector early, and many countries have a large undeclared workforce. Furthermore, factors such as seasonal work, short-term contracts offered by different employers plus unsocial hours make it hard for people to build rewarding lifetime careers in sport. Research shows that traditional employment practices based on the one-to-one/employer-employee relationship do not help. New and more flexible forms of employment, such as employee sharing, interim management, platform work and ICT-based mobile work, could provide some of the answers. The overall goals of this project seeks to address employment challenges in sport by producing a European research report, developing policy recommendations to improve recruitment, retention, rights, and inclusion, creating practical roadmaps for all types of workers, providing a digital toolkit with best-practice case studies, designing and testing an online expert training course, and organizing the first European Conference on New Employment Forms in Sport to review results and ensure long-term impact. The Albanian Government's National Employment and Skills Strategy 2023 – 2030 aims to address these issues by promoting effective engagement of the private sector in vocational education and training (VET) and employment, and by enhancing the quality of skills supply to the labour market. However, new forms of employment are emerging, offering greater flexibility and adaptability to both employers and workers, like are ICT-Based Mobile Work, Platform Work, Casual Work, Employee Sharing, Job Sharing, Voucher-Based Work, Collaborative Employment, Interim Management, and Portfolio Work. Of course these are some of the innovative employment types, that Albanian policymaker and stakeholders knows. These new forms of employment differ from traditional models by offering greater flexibility and autonomy but often come with challenges such as reduced job security, lack of benefits, and potential income instability. The Albanian reality is aware of them but does not officially use them. Additionally, there is still a lack of a legal and terminological regulatory framework for implementing these forms in accordance with EUROBOND standards. Finally, expected benefit of the project is providing deepen knowledge of new employment models, guide policymakers on benefits and risks, equip employers and workers with practical tools, and build a secure, adaptable, professional sport workforce.

S7**Open space and closed years; transformational potential of natural environment and multicomponent physical exercising in older women**

Damir Sekulic

University of Split, Faculty of Kinesiology

There is a growing need for the development and evaluation of the effectiveness of the physical exercising programs (PEPs) suitable for older age. The development of adequate PEPs is particularly important in the context of healthy aging and maintaining the quality of the functional-motor status of older adults. PEPs have been proven effective in maintaining and improving the functional-motor status of older women. The main objective of this research project (financed by Ministry of Science, Education and Youth of the Republic of Croatia, and European Union Funds) will be to examine the effects of a specific multicomponent PEP, implemented in outdoor settings, on the health and fitness status (HFS) of older women. Participants will be women older than 60 years who will be involved in multicomponent PEP organized exclusively outdoor. Beyond analyzing the effects of the PEP this project will contribute to understanding the importance of natural environments in conducting targeted physical activity among the elderly population. Furthermore, it is important to note that the program is financially and materially low-demanding, which makes it widely applicable. At forthcoming Conferences empirical results of the project will be hopefully presented in details.

S8**High Performance Sport Center — Supporting Sports Excellence, University of Mostar**Miran Pehar^{1,2}¹Faculty of Science and Education, University of Mostar, ²High Performance Sport Center, University of Mostar

The University of Mostar has established the High Performance Sport Center (HPC) within its Faculty of Science and Education as a strategic step toward advancing sports excellence in Bosnia and Herzegovina and Croatia. The Center's mission is to support elite athletes and their professional teams through scientific, medical, psychological, and technological expertise, enabling peak performance at major national and international competitions. HPC is organized into specialized departments covering health, conditioning, psychological preparation, recovery, lifestyle and well-being, and sports performance analysis. This structure ensures a comprehensive and interdisciplinary approach to athlete development. Collaboration with national sports federations, healthcare institutions, and academic and research organizations positions the Center as a hub for innovation and knowledge transfer in applied sports science. By integrating scientific research with practical applications, the High Performance Sport Center enhances both athletic success and the international reputation of the University of Mostar. It plays a vital role in strengthening national identity, promoting regional recognition, and inspiring future generations to engage in sport and excellence.

S9**Innovative Post-Exercise Recovery Strategies in Combat Sports: The Effectiveness of Contrast Compression Therapy and Dry Needling**

Robert Trybulski

Górnośląska Academy, Katowice, Poland

This presentation outlines a series of experimental studies evaluating the effectiveness of two recovery modalities in elite MMA athletes: contrast compression therapy using the Game Ready system and dry needling applied to latent myofascial trigger points. Using objective tools (laser Doppler flowmetry, dynamometry, myotonometry), we measured changes in muscle stiffness, elasticity, perfusion, pain threshold, and isometric strength in post-exercise and resting conditions. Even short Game Ready sessions (3–10 or 10–20 minutes) significantly improve muscle biomechanical properties. Dry needling interventions showed no decrease in performance and effectively reduced post-exercise muscle stiffness and pain. The combination of both therapies revealed additive benefits, suggesting practical implications for training periodization and athletic recovery protocols.

Poster presentations**P1****Somatotype as a Predictor of Physical Fitness in Young Male Football Players**

Zikica Tasevski

Ss. Cyril and Methodius University-Skopje Faculty of Physical Education, Sport and Health, 1000 Skopje, North Macedonia

Purpose: The purpose of this study was to examine the relationship and predictive value of somatotype components on selected physical fitness indicators in young male football players. **Methods:** The study included a sample of 110 male football players aged 13 to 15 years actively engaged in structured training. Somatotype was determined using the Heath-Carter method, including endomorphy, mesomorphy, and ectomorphy. Physical fitness was assessed via agility (zig-zag test), muscular endurance (sit-ups in 30 seconds), explosive strength (standing long jump), sprint speed (10 m, 20 m, 30 m), and aerobic capacity (Leger test). Pearson's correlation and multiple linear regression using the method of least squares were applied. **Results:** Mesomorphy showed a strong positive association with abdominal endurance ($\beta = 0.555$; $p < 0.001$) and a significant negative correlation with sprint performance at 10 m ($r = -0.329$; $p < 0.01$) and 30 m ($r = -0.258$; $p < 0.05$). Ectomorphy correlated positively with slower sprint times ($r = 0.418$; $p < 0.01$ for 10 m), while endomorphy was negatively

associated with explosive power ($r = -0.296$; $p < 0.01$) and aerobic capacity ($\beta = -0.228$; $p = 0.013$). Regression models explained 6.9% to 21.1% of variance in performance tests. Conclusion: Somatotype components are significant predictors of physical fitness attributes in youth football players. Integrating somatotype assessment may enhance individualized training and talent identification processes. Keywords: somatotype, physical fitness, youth athletes.

P2

Assessing Quality of Teaching from different Perspectives for Improving Teacher-Centered Instruction in Higher Education

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²Faculty of Education and Physiotherapy, Vrije Universiteit Brussel, Brussels, Belgium

Purpose: Student feedback is essential for evaluating teaching performance and improving instructional quality. Traditionally, evaluations occur at semester's end and are seldom used as evidence-based tools for enhancing teaching. The Diagnosis of Classroom Instruction (DTF) system offers a structured approach using questionnaires, software, and media to support continuous teaching improvement. It includes evaluations from students (student evaluation), the instructor (self-evaluation), and a peer (peer evaluation). This study aimed to assess teaching quality using the DTF method through student and teacher feedback. Methods: Fifty-three undergraduate physiotherapy students and two lecturers from the School of Health Professions, Bern University of Applied Sciences, participated. After the first lesson, a survey informed the learning objectives and teaching methods for the second lesson. A second evaluation followed. Data were collected twice over ten days using equivalent questionnaires for students, self-evaluating lecturers, and peer observers. The DTF tool assessed four domains: Classroom Management (5 items), Learning Climate (7), Clarity and Structuring (6), and Activation (7), rated on a 4-point Likert scale (1 = strongly disagree to 4 = strongly agree; neutrality = 2.5). Results: Forty-four students completed both surveys. Student ratings slightly improved in the second round. Lecturer and peer ratings decreased slightly, except for one item that improved. Overall, perspectives aligned more closely after the second evaluation. Conclusion: DTF shows promise as a diagnostic tool to enhance teaching quality. For optimal results, it should involve multiple students, at least two observers, and repeated assessments over time.

P3

Young People's Attitude Towards the Practice of Parkour

Eleonora Mileva¹, Krasimira Petkova¹

¹National Sports Academy "Vasil Levski", Sofia, Bulgaria

Key words: youth, sport, subculture, parkour, interview. The aim of the research is to study the attitude of young people towards their participation in the sport of parkour as part of a specific youth subculture. The subjects of the study are 6 young people aged between 19 and 28, 5 of whom are men and 1 is a woman. For the purposes of the study, the in-depth interview method with subsequent content analysis is applied. The interview questions are aimed at the affiliation of the surveyed individuals to the sport of parkour. From the analysis of the results, it is clear that all respondents categorically state that they belong to the sports community of parkour practitioners. Various reasons for turning to this sport are established. The participation of all young people in parkour has had a positive impact on their personal development, having formed certain values and helped to overcome certain difficulties and obstacles in the past. Young people share that they have their own meeting place, which is currently the sports hall. All participants emphasize that they have their own idols in the sport of parkour, from whom they have learned and mastered certain techniques and exercises. Belonging to the sports subculture of parkour helps respondents to successfully cope with other daily activities and occupations. Practicing this sport is an integral part of the lives of young people, as in this subculture they make new friends and acquaintances and feel useful to the society. Respondents would find it difficult to imagine their lives without being present in this sports subculture.

P4**Analysis of selected psychomotor abilities of special forces unit soldiers at different stages of training**Wojciech Paśko¹, Krzysztof Przednowek¹¹Faculty of Physical Culture Sciences, Collegium Medicum, University of Rzeszow, 35-959, Poland.

Introduction: Psychomotor abilities are crucial in soldiers during combat tasks so that they can make effective decisions quickly and efficiently in stressful situations. Aim: The main purpose of the study is to assess selected psychomotor abilities in soldiers of special forces units at different stages of training. Material: The study included 90 candidates and soldiers of special forces units. The participants were divided into three groups: Selection, KDS, and Operators. Method: The Test2Drive computer system was used to assess psychomotor abilities. The study employed six tests to assess simple reaction speed (SIRT test), reaction speed with choice (CHORT test), eye-hand coordination (HECOR test), spatial orientation (SPANT test), perception and attention (PUT test), and anticipation (PAMT test). Results: The analysis revealed statistically significant differences in motor time for the SIRT, CHORT, HECOR, and SPANT tests. Moreover, statistically significant differences were observed mainly between the KDS group and the Operators. Operators achieved longer motor times in the CHORT and HECOR tests than the KDS group, and shorter motor times in the SIRT and SPANT tests. Conclusions: The level of selected psychomotor abilities, especially motor time, may change during military training. The most significant changes are typically observed after completing the KDS course and becoming a soldier in a special forces unit.

P5**Impact of hurdle height on mechanical and kinematic variables of repeated hurdle jumps**Darjan Spudić¹, Nejc Lončar¹, Aleš Dolenec¹, Vojko Strojnik¹, Igor Štirn¹¹Faculty of Sport, University of Ljubljana, Ljubljana, Slovenia

Purpose: Higher hurdle heights are generally believed to increase push-off intensity when clearing successive hurdles, potentially enhancing adaptations in plyometric ability over time. Therefore, the aim of this study was to examine the effect of hurdle height on ground reaction force (GRF) and jumping technique at different time points during successive hurdle jumps. Methods: Seventeen track and field athletes performed maximal successive hurdle jumps over five hurdle heights (0.15, 0.30, 0.45, 0.60, and 0.75 m). Vertical and horizontal components of the GRF were recorded, and jumping technique was assessed in the sagittal plane using video analysis at three time points: landing, take-off, and hurdle clearance. Contact time, acceleration, and velocity were calculated for the eccentric and concentric phases of the push-off. Trunk inclination and hip, knee, and ankle flexion angles were also measured. Results: For mechanical variables, only concentric horizontal velocity increased significantly with hurdle height (from 0.30 to 0.47 m/s). Kinematic analysis revealed that trunk inclination, ankle plantarflexion, knee flexion, and hip flexion increased with hurdle height during the clearance phase, but not during landing or take-off. Conclusion: Increasing hurdle height from 0.15 m to 0.75 m does not significantly influence push-off intensity. Rather than generating greater vertical acceleration to clear higher hurdles, athletes adapt their clearance technique by leaning the trunk forward and increasing leg flexion.

P6**Physical Literacy and Physical Activity Among Pregnant Women: Associations and Discriminative Capacity**Barbara Gilić¹, Vana Furčić¹, Ivana Čerkez Zovko²¹Faculty of Kinesiology, University of Split, Split, Croatia, ²Faculty of Science and Education, University of Mostar, Mostar, Bosnia and Herzegovina

PURPOSE: Physical activity (PA) during pregnancy contributes to numerous maternal and fetal health benefits, yet many women remain insufficiently active. Physical literacy (PL) has emerged as a potential factor influencing PA engagement, but its role during pregnancy is poorly understood. METHODS: This cross-sectional study included 104 pregnant women, categorized into low (n=65) and highly active (n=39) groups based on

self-reported weekly PA. Demographic and anthropometric data were collected alongside measures of PL components and PA domains. Between-group differences were assessed using the Mann–Whitney U test. Receiver Operating Characteristic (ROC) curves evaluated the discriminatory capacity of PA levels on PL components. Spearman rank-order correlations were used to examine associations between PL and PA variables. RESULTS: Highly active women demonstrated significantly greater scores in physical competence, motivation, confidence, and overall PL compared to their low-activity counterparts. ROC analyses showed that physical competence and motivation moderately discriminated activity group membership (AUC=0.67), while PA indices, especially walking (AUC=0.86), showed strong discriminative ability. Significant positive correlations were found between PL components and total and vigorous PA., with physical competence and vigorous PA having the highest correlation (Spearman's $R=0.36$, $p<0.001$). CONCLUSION: Higher levels of PL, particularly physical competence and motivation, are associated with greater PA among pregnant women. These findings support the relevance of PL in promoting prenatal activity engagement. Key words: Prenatal period, maternal health, exercise, movement, lifestyle medicine, well-being.

P7

Occupational Stress Related to Job Specificities in Rescue Service Personnel

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Purpose: This thesis explores occupation-specific stress in rescue services—including paramedics, firefighters, police officers, and mountain rescue teams—focusing on identifying key stressors, psychological consequences, and effective prevention strategies. Methods: A systematic literature review was conducted in accordance with PRISMA guidelines. Eleven scientific studies published between 2002 and 2024 were reviewed, addressing stress, PTSD, and burnout in emergency workers. Results: Numerous stressors were identified, such as exposure to trauma, organizational deficiencies, emotional exhaustion, and high prevalence of PTSD and burnout. Special emphasis is placed on secondary traumatization and cumulative stress in mountain rescue teams, who operate under extreme conditions with limited psychological support. Effective interventions include cognitive-behavioral therapy, resilience training, critical incident debriefing, and strengthening team cohesion. Additionally, fostering an institutional culture that encourages open communication and early detection of stress symptoms is crucial in protecting mental health. Conclusion: Emergency service professionals are exposed to chronic stress with serious psychological implications. Implementing comprehensive support systems and destigmatizing help-seeking behavior is essential to safeguard their mental well-being and operational readiness. Keywords: Stress, rescue services, PTSD, burnout, mental health, emergency responders, mountain rescue.

P8

Physical literacy and quality of life in older women

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BACGROUND: Physical literacy (PL) is an important concept that is theorized to be associated with quality of life (QoL), especially in older adults, but studies rarely have examined the associations between PL and QoL, specifically in older women. The aim of this study was to evaluate the possible correlations between PL and QoL in older women from southern Croatia. METHODS: We studied 59 participants (all females, 60--80 years of age) and tested them on the Perceived Physical Literacy Questionnaire (PL) and the European Quality of Life-5 Dimensions-5 Levels Questionnaire (QoL). To identify the associations between PL and QoL, Pearson's correlations were calculated between different PL subdomains and total scores and between the QoL 5 dimensions and overall status. RESULTS: A lower total PL score was associated with mobility problems ($R = -0.31$, $p < 0.05$) and greater anxiety/depression ($R = -0.30$, $p < 0.05$). A lower physical competence subdomain of PL was associated with mobility problems ($R = -0.44$, $p < 0.05$), problems with usual everyday activities ($R = -0.33$, $p < 0.05$), pain/discomfort ($R = -0.43$, $p < 0.05$), and better overall status ($R = 0.38$, $p < 0.05$). Higher PL confidence was negatively associated with lower anxiety/depression ($R = -0.35$, $p < 0.05$). CONCLUSION: The results indicate a clear connection between the PL concept and QoL, warranting future investigations where cause-effect relationships should be investigated in more detail.

P9

The Potential of the MGM-15 Test as a Method for Evaluating Sports Performance

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Accurate and multidimensional assessment of athletic performance is fundamental to optimizing training and preventing injury. The Modified Miron Georgescu – 15 (MGM-15) test offers an integrative psycho-neuro-motor framework for evaluating lower limb performance through repeated vertical jump sequences. Purpose: This study aims to investigate the MGM-15 test's effectiveness in quantifying key performance variables and motor control capacities in athletes. Methods: A three-series vertical jump protocol was implemented (bilateral, right leg, and left leg), with each series consisting of 15 seconds of continuous jumps. Data were collected using the OptoJump system and analyzed via the Neuromotrica platform. Performance indicators included average and maximum power output, jump height, flight and contact times, as well as energetic (EVC) and structural (SVC) variability coefficients, asymmetry indices, theoretical maximal power estimates, and real versus potential power reserve values. Results: The MGM-15 protocol enabled detailed profiling of neuromuscular performance by identifying strength asymmetries, latent power reserves, and motor control inconsistencies through multiple vertical jump parameters. Conclusion: Offering a sensitive and practical psycho-neuro-motor approach for performance diagnostics in sport, the MGM-15 provides coaches and practitioners with useful insights for individualized training design and injury risk management.

P10

Positional Differences in Match Running Performance Among Montenegrin Football Players: GPS-Based Insights

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In modern football, tracking match running performance (MRP) during matches has become a key tool for performance diagnostics. However, it remains unclear how MRP differs according to players' positions within a team. PURPOSE: Therefore, this study aimed to examine the differences in match running performance among football players based on their playing positions. METHODS: For the purposes of this study, 36 outfield players from Montenegro were categorized according to their positions into defenders, midfielders, wide players, and forwards. Using a Global Positioning System (GPS) device (K-Sport Universal, Montelabbate, Italy), players' MRP was analyzed based on 13 variables. RESULTS: ANOVA and post-hoc analysis revealed differences between playing positions across multiple MRP parameters. Midfielders and wide players covered greater distances at very high-intensity speeds (19–25 km/h) than defenders ($p=0.012$ and $p=0.029$). Both groups also recorded longer sprint distances (>25 km/h) than defenders ($p=0.018$ and $p=0.000$), with wide players outperforming midfielders ($p=0.000$) and forwards ($p=0.000$). Midfielders and wide players covered more total distance than forwards ($p=0.000$ and $p=0.006$, respectively). The number of sprints was higher for midfielders and wide players than defenders ($p=0.021$ and $p=0.000$), and wide players performed more sprints than midfielders ($p=0.001$) and forwards ($p=0.000$). Maximum speed was greater among wide players than defenders ($p=0.001$) and forwards ($p=0.002$). Finally, midfielders recorded more high-intensity decelerations (<-3 m/s²) than defenders ($p=0.009$). CONCLUSIONS: These findings are important because they emphasize the varying physical demands across positions. Understanding these differences allows coaches to tailor conditioning and tactical training.

P11

Dry Needling and Pain Relief in Myofascial Pain Syndrome: What Does the Evidence Say?

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Purpose: Myofascial Pain Syndrome (MPS), commonly linked to myofascial trigger points (MTrPs), is a frequent cause of musculoskeletal pain. Dry Needling (DN) has gained global attention since the early 2000s as a potential

treatment to alleviate pain symptoms in MPS. Despite extensive research, literature remains controversial, and a comprehensive summary of DN's effectiveness is lacking. This evidence summary aims to evaluate the short- and long-term effects of DN on pain intensity in MPS across all body regions and to provide clinical recommendations. Methods: A systematic search of Cochrane, Embase, and PubMed identified systematic reviews and meta-analyses published after 2020. Studies comparing DN to other active or passive treatments were included. Methodological quality was assessed using AMSTAR 2, and the certainty of evidence was rated using the GRADE approach. Results: Eight systematic reviews, including five meta-analyses (n=7053), were analyzed. DN showed clear short-term effectiveness in reducing pain, as measured by the Visual Analog Scale (VAS) and Numerical Rating Scale (NRS). However, evidence for long-term effects remains inconclusive due to limited data. Methodological quality ranged from 'critically low' to 'moderate', and the overall certainty of evidence was rated as "very low". Conclusion: Based on current evidence, DN can be weakly recommended (GRADE B) for short-term pain relief in MPS. Further, high-quality randomized controlled trials with larger sample sizes are needed to clarify their long-term effectiveness.

P12

Differences in the performance of national football teams from different continents at the 2022. World Cup in Qatar

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PURPOSE: Analysis of the playing style, tactical and situational parameters in football shows different variations depending on continental affiliation. The aim of the paper is to determine the differences in the performance of national teams coming from different continents at the 2022 World Cup in Qatar. **METHODS:** The research sample consisted of all matches (n=128), national teams (n=32), distributed across 5 continents: Europe (n=13 national teams; n=56 matches), Asia (n=6; n=21), Africa (n=5; n=20), South America (n=4; n=18) and North and Central America (n=4; n=13). The variables analyzed were: goals scored, shots on goal, passes, completed passes, pass accuracy percentage, ball possession percentage, total distance covered, total distance covered in zones 4 and 5, maximum speed achieved, successful line breaks, successful line breaks of the opponent's defensive line, ball receptions in the final third of the field, second balls won (www.fifa.com). One-way ANOVA analysis of variance was used to determine differences between groups. LSD test was used for post-hoc analysis of differences. **RESULTS:** The results show significant differences between continents in the following performances: shots on goal (sig.=.049), shots on goal (sig.=.001), total number of passes (sig.=.00), total number of completed passes (sig.=.00), percentage of pass accuracy (sig.=.00), percentage of possession (sig.=.00), maximum team speed achieved (sig.=.06), successful line breaks (sig.=.00) and touches with the ball in the last third of the field (sig.=.00). The groups do not differ in goals scored (sig.=.122), distance covered (sig.=.875), distance covered in zones 4 and 5 (sig.=.180), successfully broken defensive lines (sig.=.198) and second balls won (sig.=.744). **CONCLUSION:** Differences between continents have been observed, with European and South American teams having more possession of the ball, more passes and controlling the tempo of the game, while African, Central American and Asian teams prefer faster transitions and a more direct style of play based on the individual qualities of individual players. In terms of distance covered and intensity of movement in zones 4 and 5, the teams are at approximately the same level. The differences reflect historical, tactical and technical factors, which contribute to the diversity, unpredictability and richness of the game of football in the world. **Keywords:** football, analysis, competition, football federations.

P13

Changes in spatiotemporal gait parameters under load and inclination in soldiers of the territorial defense forces

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Aim: The study aimed to determine how external load and ground inclination influence the spatiotemporal structure of gait in soldiers of the Territorial Defense Forces. The results obtained will help assess the level of kinematic adaptation and support the military training process. **Methods:** The study included 26 soldiers from the Territorial Defense Forces of the Polish Armed Forces. The experiment was conducted using an h/p/cosmos gaitway treadmill. The protocol involved four inclinations (0%, 5%, 10%, 15%) and three external loads (0 kg, 7 kg, 27 kg). Trials were run at a constant speed of 5.5 km/h, with 20 seconds. The Friedman test and Durbin-Conover post hoc test were used for statistical analysis. **Results:** Statistical analysis revealed that both external load and inclination significantly affect the spatiotemporal structure of gait. Increased

load is observed to lengthen the double support phase and shorten step length. Additional military equipment caused changes three to four times greater than ground inclination. Conclusions: The changes in the spatiotemporal structure of gait represent adaptive responses. The prolongation of the stance phase and the double support phase indicates increased requirements for dynamic stability. External load exerts a stronger influence on gait kinematics in soldiers, which may reduce combat effectiveness and increase the risk of injury. Key words: soldiers, spatiotemporal parameters, gait.

P14

Assessment of psychomotor abilities of top handball players before and after the competition phase

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Introduction: Psychomotor abilities can play a significant role in professional handball players during the entire competitive season. The ability to anticipate an opponent's actions, to focus on relevant stimuli, as well as the speed of perception and the accurate choice of reaction can be a key factor of success in handball competition. Aim: The main aim of the study is to evaluate selected psychomotor abilities in professional male handball players of the Orlen Superleague Handball League and the Central League at different stages of the competition season. The results obtained will help to determine which psychomotor abilities and at what level the players should be characterised, and will enable them to be assessed before the second round and at the end of the season. Material: A total of 77 professional male handball players from the Orlen Superleague Handball League and the Central League in the 2023/2024 season took part in the study. The participants in the study were divided into positions on the pitch: wing players, centre and pivot players. Method: The Test2Drive computer system was used to assess the psychomotor abilities of professional handball players. During the study, six tests were used to assess simple reaction time (SIRT), choice reaction time (CHORT), eye-hand coordination (HECOR), spatial orientation (SPANT), perception and attention (PUT), anticipation test (PAMT). Results: The analysis showed statistically significant differences for SIRT MT, CHORT RT, HECOR RT, HECOR MT, SPANT RT and PUT. In addition, a decrease in movement time at the end of the season was noted in the following tests: SIRT, CHORT, HECOR. Conclusions: Monitoring psychomotor ability during the season and regular testing will allow moments of decreased performance to be caught and training loads to be adjusted. In addition, attention should be paid to increasing the emphasis on training coordination and movement precision in order to maintain or improve movement time (MT) and prevent deterioration of this ability during the season. Key words: Handball, psychomotor abilities, reaction time, movement time.

P15

Schoolbag Weight and Anthropometric Characteristics of Primary School Students Aged 7 to 11 Years in Kosovo

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Objective: This study aimed to analyze the weight of schoolbags and the anthropometric characteristics of primary school students in Kosovo, and to compare these data with the international recommendations of the World Health Organization (WHO). Methods: The study included 1,158 students (577 girls and 581 boys), aged 7 to 11 years, from seven regions of Kosovo. Body height, body weight, body mass index (BMI), and schoolbag weight were measured for each participant. Data were analyzed using descriptive statistics and t-tests to compare values with WHO reference standards. Results: The findings indicate that the average weight of schoolbags in all age groups exceeds the recommended threshold of 10% of body weight. Statistically significant differences in body height between genders were observed at ages 7, 8, and 9. The proportion of overweight and obese students was higher in the older age groups, while a considerable percentage of students were classified as underweight, particularly among girls. Conclusion: Primary school students in Kosovo carry schoolbags that significantly exceed international recommendations, posing a potential risk to their physical health, especially in terms of musculoskeletal development. These findings highlight the need for institutional interventions and improvements in educational practices to reduce schoolbag weight among students. Keywords: students, primary education, schoolbag, anthropometry, WHO, Kosovo.

P16**The Relationship Between Isometric Strength, Speed and Reactive Integrity in Youth Training Football**Krzysztof Przednowek¹, Wiesław Gęślak¹¹Faculty of Physical Culture Sciences, Collegium Medicum of the University of Rzeszów, University of Rzeszów, Poland

Purpose: The aim of this study was to analyze the relationship between isometric strength, linear speed, and reactive agility in a group of boys aged 13-16 years training football. **Methods:** The study involved 25 boys. Isometric strength was measured using the Isometric Mid-Thigh Pull test, speed was assessed over a distance of 30 meters using Smart-Speed photocells, and reactive agility was tested using the SkillCourt device with two tests: 50m Random Run Test and Random Star Run. **Results:** The Pearson correlation coefficient was used in the statistical analysis, revealing significant relationships between the examined variables. A strong correlation was observed between isometric strength and running speed ($p = 0.001$), as well as between speed and agility ($p = 0.003$). Additionally, a moderate negative correlation was found between strength and reactive agility ($r = -0.48$; $p = 0.012$), which may indicate the influence of strength on the ability to rapidly change direction. **Conclusions:** The negative Pearson correlation indicates that the levels of strength and speed influence reactive agility. Higher values of these parameters may facilitate more effective adaptation to dynamic changes in movement direction. The results confirm that isometric strength, in combination with speed and reactive ability, constitutes a crucial component of motor preparation for young athletes. **Keywords:** isometric strength; speed; reactive agility; IMTP; SmartSpeed.

P17**Health status, physical literacy and health literacy in older women**Natasa Zenic¹, Ivan Zeljko², Ivana Cerkez Zovko²¹University of Split, Faculty of Kinesiology, Split, Croatia, ²University of Mostar, Faculty of Science and Education, Mostar, Bosnia and Herzegovina

BACKGROUND: Physical literacy (PL) and health literacy (HL) are theorized to be associated with health status (HS), but studies rarely directly examine the link between these concepts. **PURPOSE:** This study aimed to evaluate the associations that may exist between PL, HL, and HS in older women from southern Croatia. **METHODS:** The participants were 61 women (+ 60 years of age) from southern Croatia who were tested on HL (via the European Health Literacy Survey Questionnaire) and PL (via the Perceived Physical Literacy Questionnaire) in controlled and supervised settings and were asked about their current HS by reporting their chronic illness status. For the purpose of this study, HS was used as a criterion (dichotomized into "No chronic illness vs. Chronic illness"). Logistic regression was performed with the PL and HL subscores and total scores as univariate predictors of binarized HS. **RESULTS:** PL-total and HL-total were not significantly associated with HS (OR = 0.95, 95% CI: 0.90–1.01; OR = 1.03, 95% CI: 0.94–1.13 for PL-total and HL-total, respectively). However, specific subdomains of both concepts were significantly associated with HS. Specifically, the presence of chronic illness was associated with a lower level of appraising information related to disease prevention (OR = 0.51, 95% CI: 0.21--0.96), a higher level of PL competence (OR = 1.04, 95% CI: 1.01--1.09), and a lower level of PL confidence (OR = 0.95, 95% CI: 0.91--0.99). **CONCLUSION:** The results reveal the specific characteristics of the associations between HL, PL and HS in older women, emphasizing the importance of a more detailed evaluation of the complex relationships among the studied concepts.

P18**Ball possession in football from a new angle**Nebojša Došić¹¹Faculty of Sport and Physical Education, Novi Sad, Serbia, Independent Researcher, Novi Sad, Serbia

Purpose: The first findings about possession of the ball in football come from the 50s of the 20th century. Some of the authors who have dealt with the issue of the ball possession: Rep, Gagajev, Hughes, James, Lago, Delal and many others. The goal of this research is to examine whether there are differences in the ball possession in the fields of the football field within the standard zones of the field National teams that did not qualify and those that did

qualify. Methods: The research covered 24 matches played in groups A and B of the World Championship in 2014. As a source of data, official reports from matches were taken from the website www.fifa.com. The values of ball possession, expressed in percentages, were compared between the National teams that advanced to the continuation of the competition and the National teams that ended their participation. In total, the field is divided into 9 fields: A1, A2, A3, B1, B2, B3, C1, C2, C3. Results: Using the Mann Whitney test, no statistically significant differences were found between the National teams that advanced to the next competition and the National teams that ended their participation. Conclusion: Although differences are expected, they have not been established. In future researches it will be necessary to increase the sample and to examine if there are differences in some other technical-tactical and racing characteristics of the attack phase.

P19

The Effectiveness of a Lifestyle Intervention on Health-Related Quality of Life: A Quasi-Experimental Study

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PURPOSE: The study evaluated the impact of a lifestyle intervention on health-related quality of life using the EQ-5D-3L questionnaire. **METHODS:** 42 nursing home residents aged 65 and older were organized into two groups: IG and CG. The CG (18 subjects), with an average age of 69.44 years and the IG (24 subjects) 74.50 years. The IG participated in a 12-week structured exercise regimen based on the Otago Exercise Program (OEP). Sessions were conducted three times per week, with the aim of improving static and dynamic balance. Balance was assessed pre- and post-intervention using the Leonardo platform. Also, before and after the intervention, the standardized EQ-5D-3L questionnaire was applied to verify the impact of physical activity on health-related quality of life (HRQoL). The study used the EQ-5D-3L questionnaire to measure health-related quality of life across five dimensions: mobility, self-care, usual activities, pain/discomfort, and anxiety/depression. Each dimension had a three-level rating scale. **RESULTS:** The results from the post-intervention phase show that significant differences were observed in several areas of the quality of life between the control and experimental groups. Mobility ($\chi^2 = 11.425$, $p = 0.003$) and Self-Care ($\chi^2 = 4.582$, $p = 0.032$) showed significant improvements, with the experimental group reporting a better ability to walk and care for themselves compared to the control group. Usual Activities ($\chi^2 = 9.722$, $p = 0.002$) also showed a significant difference, indicating that the experimental group reported fewer issues with daily activities after the intervention. However, Pain/Discomfort ($\chi^2 = 4.796$, $p = 0.091$) did not reach statistical significance, suggesting that the intervention did not have a noticeable impact on pain levels in the experimental group compared to the control group. Anxiety/Depression ($\chi^2 = 5.567$, $p = 0.018$) showed significant differences, suggesting that the intervention might have had an effect on reducing anxiety and depression in the experimental group. Finally, HealthScale ($\chi^2 = 18.667$, $p = 0.002$) demonstrated significant differences, indicating a general improvement in health status for the experimental group after the intervention. **CONCLUSION:** The intervention had a positive impact on most of the quality of life dimensions. These results suggest that the intervention was effective in improving certain aspects of participants' quality of life. **Keywords:** health-related quality of life, EQ-5D-3L, lifestyle intervention, health outcomes.

P20

Proposal for Using the Countermovement Frog Jump to Assess Lower-Limb Performance on Dry Land in Water Polo: A Preliminary Study

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Lower-limb performance is essential in water polo, particularly for vertical movements supported by the eggbeater kick. Purpose: This preliminary cross-sectional study investigates whether the countermovement frog jump (CMJ_Frog) offers a more sport-specific representation of the biomechanical demands of the eggbeater kick in water polo, compared to the traditional countermovement jump (CMJ). Methods: A sample of five trained male water polo players performed both CMJ and CMJ_Frog tests on dry land using the Optojump Next system. All jumps were executed during a single session under standardized warm-up and testing conditions. Jump height was the primary performance

outcome. Results: Participants recorded higher jump heights in the traditional CMJ (35.38 ± 3.45 cm) compared to the CMJ_Frog (31.66 ± 3.36 cm), although this difference was not statistically significant ($Z = -1.761$, $p = .078$). However, a large effect size ($r = 0.79$) suggests a potentially meaningful difference. Despite the lower jump height, the CMJ_Frog may more closely mimic the neuromuscular demands of water polo-specific movements like the eggbeater kick. Conclusion: Although CMJ_Frog resulted in slightly lower jump heights, it may serve as a more sport-specific dry-land assessment of lower-limb explosive performance in water polo athletes. These preliminary findings support the relevance and feasibility of using CMJ_Frog in future, larger-scale studies to assess sport-specific leg performance and monitor athlete development.

P21

Relationships Between Match Running Performance (MRP) Parameters in Professional Football: Insights from GPS Tracking

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Match running performance (MRP) is one of the most frequently analyzed aspects in modern football. However, the interrelationships between specific MRP parameters remain underexplored. PURPOSE: This study aimed to determine the correlations among various MRP parameters. METHODS: Football players ($n=42$) were analyzed over three matches in the Montenegrin First League. Using Global Positioning System (GPS) technology (K-Sport Universal, Montelabbate, Italy), 13 MRP parameters were recorded and examined. RESULTS: Pearson correlation analysis revealed moderate to strong correlations among most match running performance (MRP) variables. Total distance (m) showed moderate to strong correlations with all MRP parameters ($r=0.352-0.727$). Similarly, all speed zones (14–19, 19–25, and >25 km/h) demonstrated moderate to strong correlations with all MRP variables ($r=0.347-0.934$), except for the 14–19 km/h zone, which showed non-significant correlations with sprint count, maximum speed, and >25 km/h distance, as well as >25 km/h distance with distance per minute. The number of accelerations and decelerations correlated moderately to strongly with all speed, acceleration, and deceleration-related parameters ($r=0.369-0.895$). Additionally, acceleration and deceleration distances were moderately correlated with sprint-related variables ($r=0.430-0.581$). In contrast, heart rate parameters were not related to MRP variables. CONCLUSION: These findings highlight that most MRP parameters are moderate to strongly interrelated, particularly those reflecting high-intensity movement patterns such as sprinting, acceleration, and deceleration. Conversely, internal load indicators like heart rate appear to be poorly associated with external match demands, suggesting they may not fully capture the physical intensity of competitive play.

P22

Physical activity level and health status in older women

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BACGROUND: Health status (HS) and physical activity (PA) are naturally interrelated, but studies of such associations among older women are lacking. PURPOSE: The aim of this study was to evaluate the cross-sectional correlations that may exist between PA and HS in older women from southern Croatia. METHODS: We included 59 participants (all females, 60-to-80 years of age) who were tested for PA via the short version of the Nordic Physical Activity Questionnaire, and their HS was confirmed by the presence of chronic illness. In addition to moderate-to-vigorous PA (MVPA) and vigorous PA (VPA), we observed the variable of meeting the World Health Organization recommendations of PA for older adults (WHO-PA). The HS was evaluated on the basis of the presence of chronic illness and was observed as a criterion in logistic regression. RESULTS: The presence of chronic illness was significantly associated with lower MVPA ($OR = 0.98$; 95% CI: 0.97–0.99) but not with VPA ($OR = 0.99$, 95% CI: 0.98–1.01). Additionally, meeting the WHO-PA criteria was strongly associated with HS ($OR = 0.09$; 95% CI: 0.02–0.39). CONCLUSION: Due to its cross-sectional design, this study does not allow interpretation of the cause-effect relationships among the study variables. However, PA templates are evidently specifically associated with the HS of older women, which requires further analyses and precise interpretations via longitudinal studies.

P23**Gender Representation in Albanian Sports Media (2014–2024)**Elona Mehmeti¹, Holtion Orhani²¹Department of Projects and Technology, Institute of Research of Sport, Sport University of Tirana, Tirana, Albania,²Department of Projects and Technology, Institute of Research of Sport, Sport University of Tirana, Tirana, Albania

This study presents an in-depth analysis of the gender gap in Albanian sports media, focusing on measurable patterns of representation across television, print, and online platforms between 2014 and 2024. Using a mixed-methods approach, the research combines a decade-long literature review with content analysis of 1,200 sports news items from Albania's five largest media outlets. The quantitative data reveal that male athletes dominate 82% of total sports coverage, while female athletes account for only 18%. Moreover, coverage of men's sports is predominantly related to athletic performance (74%), whereas coverage of women's sports is disproportionately centered on non-sport-related aspects such as personal life, appearance, or emotional narratives (61%). The analysis also documents a persistent difference in the language used: male athletes are most often associated with descriptors such as strong, competitive, and dominant, while female athletes are framed as graceful, emotional, or attractive. The case study of referee Emanuela Rusta illustrates this pattern, showing that 68% of media references to her in the study period highlighted personal attributes unrelated to her officiating career. Despite these disparities, the research identifies early signs of positive transformation. Coverage of female athletes increased by 6% over the last three years, particularly in athletics, volleyball, and referee appointments. Several international best-practice models—adapted in pilot initiatives under the SheAds Capacity Building in Sports 2024–2026 program—are shown to improve the quality and equity of representation. Keywords: Sports media, gender representation, media bias, Albania, quantitative analysis.

P24**The Impact of Health and Recreational Activities on the Functional State of Elderly Women**Dubiv A.¹, Chekhovska L.¹, Hrybovska I.¹, Ivanochko V.¹, Nakonechna A.¹, Shchur L.²¹Ivan Boberskyi Lviv State University of Physical Culture, Ukraine, ²Lviv National Academy of Arts, Ukraine

The importance of physical activity for the health and quality of life of elderly individuals, social adaptation, and the continuation of work capacity is significant. This issue is particularly relevant in the context of the war in Ukraine, which negatively affects the psycho-emotional and physical state of the population. The aim of the study is to examine the effectiveness of Nordic walking on the functional status of elderly women. Research methods: analysis and summarization of scientific literature data; sociological method (survey); pedagogical experiment; medical-biological methods; methods of mathematical statistics. Results. Over a period of 6 months, elderly individuals (aged 65–75) engaged in Nordic walking under the guidance of a qualified trainer for 45 minutes, twice a week, in a park. The sessions included a warm-up, the main part (Nordic walking at 55–65% of maximum heart rate), and a cool-down (recovery exercises, stretching). A positive impact on cardiovascular system indicators was established, particularly blood pressure and recovery time of heart rate after controlled physical exertion. An improvement in the adaptive potential of the cardiovascular system was observed, with scores changing from 2.83 ± 0.32 to 1.99 ± 0.12 ($p < 0.05$), indicating sufficient functional capabilities of the body. According to the WAM methodology, an increase in indicators of well-being, activity and mood was recorded. Conclusions. Nordic walking is an effective means of influencing the functional status of elderly women, aiding in stress relief and improving mood. It is also advisable to use it to enhance the social activity of this age group.

P25**Assessment of Vertical Jump in Elite Female Basketball Players in Tirana, Albania**Enkeleida Lleshi¹, Salvator Kurti²¹Department of Sports Performance, Sports Research Institute, Sports University of Tirana, Albania, ²Department of Sports, Faculty of Movement Science, Sports University of Tirana, Albania

The aim of the study was to evaluate the effect of weightless circuit training on vertical jump performance in elite female basketball players during one season. Method: No. 26 elite female basketball players were randomly selected from 3 sports associations in Tirana, Albania and divided into experimental and control groups. Mean age $22.8 \pm$

0.4, Body Height (BH-173.5 cm), Body Weight (BW-68.9 kg) and BMI kg/m² 25.6%. Testing protocols; Squat Jump (SJ) and Countermovement Jump (CMJ). Instrument used for GRFP "Leonardo" with objectives of power, strength and jump height. The experimental group followed the circuit training program without weights during the season. Results: Statistical analysis was performed using the IBM Statistics 26. Descriptive statistics for all subjects studied in basketball players on the variables (Pmax, Vmax, Jump Height, Fmax. The comparison between the experimental and control groups was conducted using a significance T-test, $p > 0.05$, applied to test the statistical significance of the differences between the two groups and to determine the effects of training on the SJ, CMJ results (Pmax 0.02436* and JH 0.00935**). Conclusion: According to data from the GRFP platform, elite female basketball players in the experimental group demonstrated an increase in vertical jump, reaching values considered sufficient after circuit training. The findings of this study indicate that the methodology used helps coaches' program more detailed and short-term training for the development of jumping skills in players. Keywords: Basketball, elite, squat, counter-movement, vertical jump.

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Guidelines for Authors

Revised Maj 2021

*** Please use the bookmark function to navigate within the guidelines. ***

When preparing the final version of the manuscripts, either NEW or REVISED authors should strictly follow the guidelines. Manuscripts departing substantially from the guidelines will be returned to the authors for revision or, rejected.

1. UNIFORM REQUIREMENTS

1.1. Overview

The *Montenegrin Journal of Sports Science and Medicine* (MJSSM) applies the Creative Commons Attribution (CC BY) license to articles and other works it publishes.

There is no charge for submissions and no page charge for accepted manuscripts. However, if the manuscript contains graphics in color, note that printing in color is charged.

MJSSM adopts a double-blind approach for peer reviewing in which the reviewer's name is always concealed from the submitting authors as well as the author(s)'s name from the selected reviewers.

MJSSM honors a six-weeks for an initial decision of manuscript submission.

Authors should submit the manuscripts as one Microsoft Word (.doc) file.

Manuscripts must be provided either in standard UK or US English. English standard should be consistent throughout the manuscripts.

Format the manuscript in A4 paper size; margins are 1 inch or 2.5 cm all around. Type the whole manuscript double-spaced, justified alignment.

Use Times New Roman font, size eleven (11) point.

Number (Arabic numerals) the pages consecutively (centering at the bottom of each page), beginning with the title page as page 1 and ending with the Figure legend page.

Include line numbers (continuous) for the convenience of the reviewers.

Apart from chapter headings and sub-headings avoid any kind of formatting in the main text of the manuscripts.

1.2. Type & Length

MJSSM publishes following types of papers:

Original scientific papers are the results of empirically- or theoretically-based scientific research, which employ scientific methods, and which report experimental or observational aspects of sports science and medicine, such as all clinical aspects of exercise, health, and sport; exercise physiology and biophysical investigation of sports performance; sport biomechanics; sports nutrition; rehabilitation, physiotherapy; sports psychology; sport pedagogy, sport history, sport philosophy, sport sociology, sport management; and all aspects of scientific support of the sports coaches from the natural, social and humanistic side. Descriptive analyses or data inferences should include rigorous methodological structure as well as sound theory. Your manuscript should include the following sections: Introduction, Methods, Results, and Discussion.

☒ Open Submissions

☒ Indexed

☒ Peer Reviewed

Original scientific papers should be:

- Up to 3000 words (excluding title, abstract, tables/figures, figure legends, Acknowledgements, Conflict of Interest, and References);
- A structured abstract of less than 250 words;
- Maximum number of references is 30;
- Maximum combined total of 6 Tables/Figures.

Review papers should provide concise in-depth reviews of both established and new areas, based on a critical examination of the literature, analyzing the various approaches to a specific topic in all aspects of sports science and medicine, such as all clinical aspects of exercise, health, and sport; exercise physiology and biophysical investigation of sports performance; sport biomechanics; sports nutrition; rehabilitation, physiotherapy; sports psychology; sport pedagogy, sport history, sport philosophy, sport sociology, sport management; and all aspects of scientific support of the sports coaches from the natural, social and humanistic side.

☒Open Submissions

☒Indexed

☒Peer Reviewed

Review papers should be:

- Up to 6000 words (excluding title, abstract, tables/figures, figure legends, Acknowledgements, Conflict of Interest, and References);
- A structured abstract of less than 250 words;
- Maximum number of references is 100.

Editorials are written or commissioned by the editors, but suggestions for possible topics and authors are welcome. It could be peer reviewed by two reviewers who may be external or by the Editorial Board.

☐Open Submissions

☒Indexed

☒Peer Reviewed

Editorials should be:

- Up to 1000 words (excluding title, abstract, tables/figures, figure legends, Acknowledgements, Conflict of Interest, and References);
- A structured abstract of less than 250 words;
- Maximum number of references is 10.

Short reports of experimental work, new methods, or a preliminary report can be accepted as two page papers. Your manuscript should include the following sections: Introduction, Methods, Results, and Discussion.

☒Open Submissions

☒Indexed

☒Peer Reviewed

Short reports should be:

- Up to 1500 words (excluding title, abstract, tables/figures, figure legends, Acknowledgements, Conflict of Interest, and References);
- A structured abstract of less than 250 words;
- Maximum number of references is 15.

Peer review - fair review provides authors who feel their paper has been unfairly rejected (at any journal) the opportunity to share reviewer comments, explain their concerns, and have their paper reviewed for possible publication in MJSSM.

☒Open Submissions

☒Indexed

☐Peer Reviewed

Peer review - fair review should be:

- Up to 1500 words (excluding title, abstract, tables/figures, figure legends, Acknowledgements, Conflict of Interest, and References);
- A structured abstract of less than 250 words;
- Maximum number of references is 15.

Invited papers and award papers include invited papers from authors with outstanding scientific credentials. Nomination of invited authors is at the discretion of the MJSSM editorial board. MJSSM also publishes award papers selected by the scientific committee of the MSA annual conference.

☐Open Submissions

☒Indexed

☐Peer Reviewed

Invited papers and award papers should be:

- Up to 3000 words (excluding title, abstract, tables/figures, figure legends, Acknowledgements, Conflict of Interest, and References);
- A structured abstract of less than 250 words;
- Maximum number of references is 30;
- Maximum combined total of 6 Tables/Figures.

Meeting Abstracts contain conference abstracts of the sports science papers presented at the MSA annual conference and MSA-sponsored meetings. This publication offers a first look into the current research in the field of Sports Science.

☐ Open Submissions

☒ Indexed

☐ Peer Reviewed

Meeting Abstracts should be:

- Restricted to 250 words (including title, authors and institutions) and must include the following separate sections: [1] purpose; [2] methods; [3] results; [4] conclusion;
- Without references;
- Without Tables/Figures.

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MJSSM only accepts electronic submission to the e-mail of the Journal Office: **office@mjssm.me**.

Submitted material includes:

- A manuscript prepared according to the Guidelines for the Authors;
- A signed form that states the study was not previously published, nor has been submitted simultaneously for consideration of publication elsewhere, that states that all of the authors are in agreement with submission of the manuscript to MJSSM, and that, for studies that use animal or human individuals, authors must include information regarding their institution's ethics committee, and which identifies the official approval number;
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Name the files according to the family name of the first author. Authors submitting revised versions of the manuscript can use the identification number of their manuscript as provided by the Journal Office. *See example:*

- ✓ FAMILY NAME-manuscript.doc – (main manuscript file)
- ✓ FAMILY NAME-statement.PDF – (authorship statement)
- ✓ FAMILY NAME-declaration.PDF – (declaration of potential conflict of interest)
- ✓ FAMILY NAME-fig1.tiff – (Figure 1)

1.4. Peer Review Process

An original manuscript submitted for publication will be submitted to the review process as long as it fits the following criteria:

- The study was not previously published, nor has been submitted simultaneously for consideration of publication elsewhere;
- All persons listed as authors approved its submission to MJSSM;
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- The opinions expressed by the authors are their exclusive responsibility;
- The author signs a formal statement that the submitted manuscript complies with the directions and guidelines of MJSSM.

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1.6. After Acceptance

After the manuscript has been accepted, authors will receive a PDF version of the manuscripts for authorization, as it should look in printed version of MJSSM. Authors should carefully check for omissions. Reporting errors after this point will not be possible and the Editorial Board will not be eligible for them.

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1.7. Code of Conduct Ethics Committee of Publications



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2. MANUSCRIPT STRUCTURE

2.1. Title Page

The first page of the manuscripts should be the title page, containing: title, type of publication, running head, authors, affiliations, corresponding author, and manuscript information. *See example:*

Transfer of Learning on a Spatial Memory Task between the Blind and Sighted People Spatial Memory among Blind and Sighted

Original Scientific Paper

Transfer of learning on a spatial memory task

Selcuk Akpinar¹, Stevo Popović^{1,2}, Sadettin Kirazci¹

¹Middle East Technical University, Physical Education and Sports Department, Ankara, Turkey

²University of Montenegro, Faculty for Sport and Physical Education, Niksic, Montenegro

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Faculty for Sport and Physical Education

Narodne omladine bb, 84000 Niksic, Montenegro

E-mail: stevop@ac.me

Word count: 2,980

Abstract word count: 236

Number of Tables: 3

Number of Figures: 3

2.1.1. Title

Title should be short and informative and the recommended length is no more than 20 words. The title should be in Title Case, written in uppercase and lowercase letters (initial uppercase for all words except articles, conjunctions, short prepositions no longer than four letters etc.) so that first letters of the words in the title are capitalized. Exceptions are words like: “and”, “or”, “between” etc. The word following a colon (:) or a hyphen (-) in the title is always capitalized.

2.1.2. Type of publication

Authors should suggest the type of their submission.

2.1.3. Running head

Short running title should not exceed 50 characters including spaces.

2.1.4. Authors

The form of an author's name is first name, middle initial(s), and last name. In one line list all authors with full names separated by a comma (and space). Avoid any abbreviations of academic or professional titles. If authors belong to different institutions, following a family name of the author there should be a number in superscript designating affiliation.

2.1.5. Affiliations

Affiliation consists of the name of an institution, department, city, country/territory(in this order) to which the author(s) belong and to which the presented / submitted work should be attributed. List all affiliations (each in a separate line) in the order corresponding to the list of

authors. Affiliations must be written in English, so carefully check the official English translation of the names of institutions and departments.

Only if there is more than one affiliation, should a number be given to each affiliation in order of appearance. This number should be written in superscript at the beginning of the line, separated from corresponding affiliation with a space. This number should also be put after corresponding name of the author, in superscript with no space in between.

If an author belongs to more than one institution, all corresponding superscript digits, separated with a comma with no space in between, should be present behind the family name of this author.

In case all authors belong to the same institution affiliation numbering is not needed.

Whenever possible expand your authors' affiliations with departments, or some other, specific and lower levels of organization.

2.1.6. Corresponding author

Corresponding author's name with full postal address in English and e-mail address should appear, after the affiliations. It is preferred that submitted address is institutional and not private. Corresponding author's name should include only initials of the first and middle names separated by a full stop (and a space) and the last name. Postal address should be written in the following line in sentence case. Parts of the address should be separated by a comma instead of a line break. E-mail (if possible) should be placed in the line following the postal address. Author should clearly state whether or not the e-mail should be published.

2.1.7. Manuscript information

All authors are required to provide word count (excluding title page, abstract, tables/figures, figure legends, Acknowledgements, Conflict of Interest, and References), the Abstract word count, the number of Tables, and the number of Figures.

2.2. Abstract

The second page of the manuscripts should be the abstract and key words. It should be placed on second page of the manuscripts after the standard title written in upper and lower case letters, bold.

Since abstract is independent part of your paper, all abbreviations used in the abstract should also be explained in it. If an abbreviation is used, the term should always be first written in full with the abbreviation in parentheses immediately after it. Abstract should not have any special headings (e.g., Aim, Results...).

Authors should provide up to six key words that capture the main topics of the article. Terms from the Medical Subject Headings (MeSH) list of Index Medicus are recommended to be used.

Key words should be placed on the second page of the manuscript right below the abstract, written in italic. Separate each key word by a comma (and a space). Do not put a full stop after the last key word. *See example:*

Abstract

Results of the analysis of...

Key words: spatial memory, blind, transfer of learning, feedback

2.3. Main Chapters

Starting from the third page of the manuscripts, it should be the main chapters. Depending on the type of publication main manuscript chapters may vary. The general outline is: Introduction, Methods, Results, Discussion, Acknowledgements (optional), Conflict of Interest (optional), and Title and Abstract in Montenegrin (only for the authors from former Yugoslavia, excluding Macedonians and Slovenes). However, this scheme may not be suitable for reviews or publications from some areas and authors should then adjust their chapters accordingly but use the general outline as much as possible.

2.3.1. Headings

Main chapter headings: written in bold and in Title Case. *See example:*

✓ **Methods**

Sub-headings: written in italic and in normal sentence case. Do not put a full stop or any other sign at the end of the title. Do not create more than one level of sub-heading. *See example:*

- ✓ *Table position of the research football team*

2.3.2 Ethics

When reporting experiments on human subjects, there must be a declaration of Ethics compliance. Inclusion of a statement such as follow in Methods section will be understood by the Editor as authors' affirmation of compliance: "This study was approved in advance by [name of committee and/or its institutional sponsor]. Each participant voluntarily provided written informed consent before participating." Authors that fail to submit an Ethics statement will be asked to resubmit the manuscripts, which may delay publication.

2.3.3 Statistics reporting

MJSSM encourages authors to report precise p-values. When possible, quantify findings and present them with appropriate indicators of measurement error or uncertainty (such as confidence intervals). Use normal text (i.e., non-capitalized, non-italic) for statistical term "p".

2.3.4. 'Acknowledgements' and 'Conflict of Interest' (optional)

All contributors who do not meet the criteria for authorship should be listed in the 'Acknowledgements' section. If applicable, in 'Conflict of Interest' section, authors must clearly disclose any grants, financial or material supports, or any sort of technical assistances from an institution, organization, group or an individual that might be perceived as leading to a conflict of interest.

2.4. References

References should be placed on a new page after the standard title written in upper and lower case letters, bold.

All information needed for each type of must be present as specified in guidelines. Authors are solely responsible for accuracy of each reference. Use authoritative source for information such as Web of Science, Medline, or PubMed to check the validity of citations.

2.4.1. References style

MJSSM adheres to the American Psychological Association 7th Edition reference style. Check the Publication Manual of the American Psychological Association (2019), Seventh Edition that is the official source for APA Style, to ensure the manuscripts conform to this reference style. Authors using EndNote® to organize the references must convert the citations and bibliography to plain text before submission.

2.4.2. Examples for Reference citations

One work by one author

- ✓ In one study (Reilly, 1997), soccer players...
- ✓ In the study by Reilly (1997), soccer players...
- ✓ In 1997, Reilly's study of soccer players...

Works by two authors

- ✓ Duffield and Marino (2007) studied...
- ✓ In one study (Duffield & Marino, 2007), soccer players...
- ✓ In 2007, Duffield and Marino's study of soccer players...

Works by three or more authors: cite only the name of the first author followed by et al. and the year

- ✓ Bangsbo et al. (2008) stated that...
- ✓ In one study (Bangsbo et al., 2008), soccer players...

Works by organization as an author: cite the source, just as you would an individual person

- ✓ According to the American Psychological Association (2000)...
- ✓ In the APA Manual (American Psychological Association, 2003), it is explained...

Two or more works in the same parenthetical citation: citation of two or more works in the same parentheses should be listed in the order they appear in the reference list (i.e., alphabetically); separated by a semi-colon

- ✓ Several studies (Bangsbo et al., 2008; Duffield & Marino, 2007; Reilly, 1997) suggest that...

2.4.3. Examples for Reference list

Works by one author

Borg, G. (1998). *Borg's perceived exertion and pain scales*: Human Kinetics.

Works by two authors

Duffield, R., & Marino, F. E. (2007). *Effects of pre-cooling procedures on intermittent-sprint exercise performance in warm conditions*. *European Journal of Applied Physiology*, 100(6), 727–735. <https://doi.org/10.1007/s00421-007-0468-x>

Works by three to twenty authors

Nepocatych, S., Balilionis, G., & O'Neal, E. K. (2017). Analysis of dietary intake and body composition of female athletes over a competitive season. *Montenegrin Journal of Sports Science and Medicine*, 6(2), 57–65. <https://doi.org/10.26773/mjssm.2017.09.008>

Works by more than twenty authors

Krustrup, P., Mohr, M., Amstrup, T., Rysgaard, T., Johansen, J., Steensberg, A.,... Bangsbo, J. (2003). The yo-yo intermittent recovery test: physiological response, reliability, and validity. *Medicine & Science in Sports & Exercise*, 35(4), 697–705. <https://doi.org/10.1249/01.mss.0000058441.94520.32>

Works by group of authors

NCD-RisC. (2017). Worldwide trends in body-mass index, underweight, overweight, and obesity from 1975 to 2016: a pooled analysis of 2416 population-based measurement studies in 128.9 million children, adolescents, and adults. *Lancet*, 390(10113), 2627–2642. [https://doi.org/10.1016/s0140-6736\(17\)32129-3](https://doi.org/10.1016/s0140-6736(17)32129-3)

Works by unknown authors

Merriam-Webster's collegiate dictionary (11th ed.). (2003). Merriam-Webster.

Journal article (print)

Scruton, R. (1996). The eclipse of listening. *The New Criterion*, 15(3), 5–13.

Journal article (electronic)

Aarnivala, H., Pokka, T., Soinen, R., Mottonen, M., Harila-Saari, A., & Niinimäki, R. (2020). Trends in age- and sex-adjusted body mass index and the prevalence of malnutrition in children with cancer over 42 months after diagnosis: a single-center cohort study. *European Journal of Pediatrics*, 179(1), 91–98. <https://doi.org/10.1007/s00431-019-03482-w>

Thesis and dissertation

Pyun, D. Y. (2006). *The proposed model of attitude toward advertising through sport*. [Unpublished Doctoral Dissertation]. The Florida State University.

Book

Borg, G. (1998). *Borg's perceived exertion and pain scales*: Human Kinetics.

Chapter of a book

Armstrong, D. (2019). Malory and character. In M. G. Leitch & C. J. Rushton (Eds.), *A new companion to Malory* (pp. 144–163). D. S. Brewer.

Reference to a Facebook profile

Little River Canyon National Preserve (n.d.). *Home* [Facebook page]. Facebook. Retrieved January 12, 2020 from <https://www.facebook.com/lirinps/>

2.5. Tables

All tables should be included in the main manuscript file, each on a separate page right after the Reference section.

Tables should be presented as standard MS Word tables.

Number (Arabic) tables consecutively in the order of their first citation in the text.

Tables and table headings should be completely intelligible without reference to the text. Give each column a short or abbreviated

heading. Authors should place explanatory matter in footnotes, not in the heading. All abbreviations appearing in a table and not considered standard must be explained in a footnote of that table. Avoid any shading or coloring in your tables and be sure that each table is cited in the text.

If you use data from another published or unpublished source, it is the authors' responsibility to obtain permission and acknowledge them fully.

2.5.1. Table heading

Table heading should be written above the table, in Title Case, and without a full stop at the end of the heading. Do not use suffix letters (e.g., Table 1a, 1b, 1c); instead, combine the related tables. *See example:*

✓ **Table 1.** Repeated Sprint Time Following Ingestion of Carbohydrate-Electrolyte Beverage

2.5.2. Table sub-heading

All text appearing in tables should be written beginning only with first letter of the first word in all capitals, i.e., all words for variable names, column headings etc. in tables should start with the first letter in all capitals. Avoid any formatting (e.g., bold, italic, underline) in tables.

2.5.3. Table footnotes

Table footnotes should be written below the table.

General notes explain, qualify or provide information about the table as a whole. Put explanations of abbreviations, symbols, etc. here. General notes are designated by the word Note (italicized) followed by a period.

✓ *Note.* CI: confidence interval; Con: control group; CE: carbohydrate-electrolyte group.

Specific notes explain, qualify or provide information about a particular column, row, or individual entry. To indicate specific notes, use superscript lowercase letters (e.g. ^{a,b,c}), and order the superscripts from left to right, top to bottom. Each table's first footnote must be the superscript ^a.

✓ ^aOne participant was diagnosed with heat illness and n = 19.^bn = 20.

Probability notes provide the reader with the results of the tests for statistical significance. Probability notes must be indicated with consecutive use of the following symbols: * † ‡ § ¶ || etc.

✓ *P<0.05, †p<0.01.

2.5.4. Table citation

In the text, tables should be cited as full words. *See example:*

- ✓ Table 1 (first letter in all capitals and no full stop)
- ✓ ...as shown in Tables 1 and 3. (citing more tables at once)
- ✓ ...result has shown (Tables 1-3) that... (citing more tables at once)
- ✓in our results (Tables 1, 2 and 5)... (citing more tables at once)

2.6. Figures

On the last separate page of the main manuscript file, authors should place the legends of all the figures submitted separately.

All graphic materials should be of sufficient quality for print with a minimum resolution of 600 dpi. MJSSM prefers TIFF, EPS and PNG formats.

If a figure has been published previously, acknowledge the original source and submit a written permission from the copyright holder to reproduce the material. Permission is required irrespective of authorship or publisher except for documents in the public domain. If photographs of people are used, either the subjects must not be identifiable or their pictures must be accompanied by written permission to use the photograph whenever possible permission for publication should be obtained.

Figures and figure legends should be completely intelligible without reference to the text.

The price of printing in color is 50 EUR per page as printed in an issue of MJSSM.

2.6.1. Figure legends

Figures should not contain footnotes. All information, including explanations of abbreviations must be present in figure legends. Figure legends should be written bellow the figure, in sentence case. *See example:*

- ✓ **Figure 1.** Changes in accuracy of instep football kick measured before and after fatigued. SR – resting state, SF – state of fatigue, *p>0.01, †p>0.05.

2.6.2. Figure citation

All graphic materials should be referred to as Figures in the text. Figures are cited in the text as full words. *See example:*

- ✓ Figure 1
- × figure 1
- × Figure 1.
- ✓exhibit greater variance than the year before (Figure 2). Therefore...
- ✓as shown in Figures 1 and 3. (citing more figures at once)
- ✓result has shown (Figures 1-3) that... (citing more figures at once)
- ✓in our results (Figures 1, 2 and 5)... (citing more figures at once)

2.6.3. Sub-figures

If there is a figure divided in several sub-figures, each sub-figure should be marked with a small letter, starting with a, b, c etc. The letter should be marked for each subfigure in a logical and consistent way. *See example:*

- ✓ Figure 1a
- ✓ ...in Figures 1a and b we can...
- ✓ ...data represent (Figures 1a-d)...

2.7. Scientific Terminology

All units of measures should conform to the International System of Units (SI).

Measurements of length, height, weight, and volume should be reported in metric units (meter, kilogram, or liter) or their decimal multiples.

Decimal places in English language are separated with a full stop and not with a comma. Thousands are separated with a comma.

Percentage	Degrees	All other units of measure	Ratios	Decimal numbers
✓ 10%	✓ 10°	✓ 10 kg	✓ 12:2	✓ 0.056
× 10 %	× 10 °	× 10kg	× 12 : 2	× .056

Signs should be placed immediately preceding the relevant number.

✓ 45±3.4	✓ p<0.01	✓ males >30 years of age
× 45 ± 3.4	× p < 0.01	× males > 30 years of age

2.8. Latin Names

Latin names of species, families etc. should be written in italics (even in titles). If you mention Latin names in your abstract they should be written in non-italic since the rest of the text in abstract is in italic. The first time the name of a species appears in the text both genus and species must be present; later on in the text it is possible to use genus abbreviations. *See example:*

- ✓ First time appearing: *musculus biceps brachii*
- ✓ Abbreviated: *m. biceps brachii*



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SMJ covers all aspects of sports science and medicine; all clinical aspects of exercise, health, and sport; exercise physiology and biophysical investigation of sports performance; sport biomechanics; sports nutrition; rehabilitation, physiotherapy; sports psychology; sport pedagogy, sport history, sport philosophy, sport sociology, sport management; and all aspects of scientific support of the sports coaches from the natural, social and humanistic side.

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Summer issue – June 2026



MONTENEGRIN SPORTS ACADEMY

Founded in 2003 in Podgorica (Montenegro), the Montenegrin Sports Academy (MSA) is a sports scientific society dedicated to the collection, generation and dissemination of scientific knowledge at the Montenegrin level and beyond.

The Montenegrin Sports Academy (MSA) is the leading association of sports scientists at the Montenegrin level, which maintains extensive co-operation with the corresponding associations from abroad. The purpose of the MSA is the promotion of science and research, with special attention to sports science across Montenegro and beyond. Its topics include motivation, attitudes, values and responses, adaptation, performance and health aspects of people engaged in physical activity and the relation of physical activity and lifestyle to health, prevention and aging. These topics are investigated on an interdisciplinary basis and they bring together scientists from all areas of sports science, such as adapted physical activity, biochemistry, biomechanics, chronic disease and exercise, coaching and performance, doping, education, engineering

and technology, environmental physiology, ethics, exercise and health, exercise, lifestyle and fitness, gender in sports, growth and development, human performance and aging, management and sports law, molecular biology and genetics, motor control and learning, muscle mechanics and neuromuscular control, muscle metabolism and hemodynamics, nutrition and exercise, overtraining, physiology, physiotherapy, rehabilitation, sports history, sports medicine, sports pedagogy, sports philosophy, sports psychology, sports sociology, training and testing.

The MSA is a non-profit organization. It supports Montenegrin institutions, such as the Ministry of Education and Sports, the Ministry of Science and the Montenegrin Olympic Committee, by offering scientific advice and assistance for carrying out coordinated national and European research projects defined by these bodies. In addition, the MSA serves as the most important Montenegrin and regional network of sports scientists from all relevant subdisciplines.

The main scientific event organized by the Montenegrin Sports Academy (MSA) is the annual conference held in the first week of April.

Annual conferences have been organized since the inauguration of the MSA in 2003. Today the MSA conference ranks among the leading sports scientific congresses in the Western Balkans. The conference comprises a range of invited lecturers, oral and poster presentations from multi- and mono-disciplinary areas, as well as various types of workshops. The MSA conference is attended by national, regional and international sports scientists with academic careers. The MSA conference now welcomes up to 200 participants from all over the world.

It is our great pleasure to announce the upcoming 24th Annual Scientific Conference of Montenegrin Sports Academy "Sport, Physical Activity and Health: Contemporary Perspectives" to be held in Budva, Montenegro, from 16 to 19 April, 2026. It is planned to be once again organized by the Montenegrin Sports Academy, in cooperation with the Faculty of Sport and Physical Education, University of Montenegro and other international partner institutions (specified in the partner section).

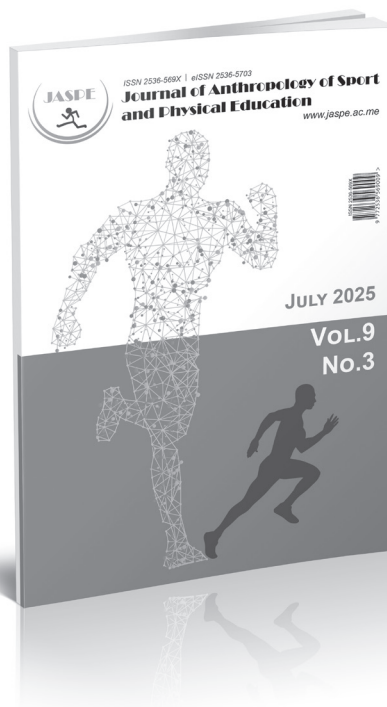
The conference is focused on very current topics from all areas of sports science and sports medicine including physiology and sports medicine, social sciences and humanities, biomechanics and neuromuscular (see Abstract Submission page for more information).

We do believe that the topics offered to our conference participants will serve as a useful forum for the presentation of the latest research, as well as both for the theoretical and applied insight into the field of sports science and sports medicine disciplines.





Journal of Anthropology of Sport and Physical Education



ISSN 2536-569X

Journal of Anthropology of Sport and Physical Education (JASPE) is a print (ISSN 2536-569X) and electronic scientific journal (eISSN 2536-5703) aims to present easy access to the scientific knowledge for sport-conscious individuals using contemporary methods. The purpose is to minimize the problems like the delays in publishing process of the articles or to acquire previous issues by drawing advantage from electronic medium. Hence, it provides:

- Open-access and freely accessible online;
- Fast publication time;
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- Worldwide media coverage.

JASPE is published four times a year, in January, April, July and October of each year. JASPE publishes original scientific papers, review papers, editorials, short reports, peer review - fair review, as well as invited papers and award papers in the fields of Anthropology of Sport and Physical Education, as well as it can function as an open discussion forum on significant issues of current interest.

JASPE covers all aspects of anthropology of sport and physical education from five major fields of anthropology: cultural, global, biological, linguistic and medical.

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Sports Science and Medicine Journals from Montenegrin Sports Academy

We have expanded the quality of our journals considerably over the past years and can now claim to be the market leader in terms of breadth of coverage.

As we continue to increase the quality of our publications across the field, we hope that you will continue to regard MSA journals as authoritative and stimulating sources for your research. We would be delighted to receive your comments and suggestions, mostly due to the reason your proposals are always welcome.

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