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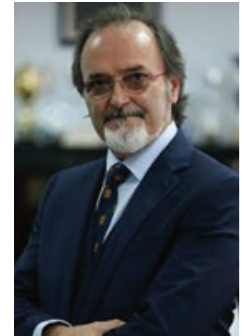


It has been a great honor to extend a warm welcome to all participants at the 17th ENSE Forum, hosted by the Sports University of Tirana, in the vibrant capital of Albania - a city witnessing a bold and radical transformation that is reshaping its future. The 17th ENSE Forum has provided an invaluable opportunity for reflection and dialogue on some of the most pressing societal and educational issues. Once again, the focus has been on sports education, a vital domain that plays a crucial role in personal, cultural, and social development.

Throughout the forum days, the role of sports education in sport diplomacy and cultural identity was explored, emphasizing its capacity to foster inclusion among individuals from diverse social, cultural, educational, and ability backgrounds. A significant emphasis was also placed on the development of tools and learning opportunities for sport educators, with the aim of better supporting healthy lifestyles across Europe.

Furthermore, the forum highlighted how emerging technologies, and innovative approaches can enhance both sports education and the promotion of healthy living. Lastly, considerable attention was dedicated to examining the pedagogical frameworks and policies that shape sports education and the work of sport educators across Europe, which are essential for the ongoing development and future direction of this field.

Prof. Antonio Tessitore, PhD
University of Rome "Foro Italico"
President of the European Network of Sport Education (ENSE)



It was with great pleasure and profound honor for me as the Rector of Sport University of Tirana that we welcomed you to the 17th ENSE Forum, hosted for the very first time by the Sports University of Tirana. We were privileged to gather in our vibrant city, united by a shared commitment to advancing sport education, research, and innovation across Europe and beyond.

The Forum brought together renowned scholars, practitioners, and visionaries from across the continent to reflect on the evolving landscape of sport and physical education. The rich body of research that was presented—from the development of physical literacy in primary schools, the integration of advanced technologies such as AI and XR in sport education, to innovative approaches in dual-career pathways and inclusive sport projects—demonstrated the depth and diversity of our field.

As an institution deeply rooted in the values of academic excellence, collaboration, and social responsibility, the Sports University of Tirana took great pride in contributing to this collective mission. We reaffirmed our belief that sport is more than physical activity—it is a catalyst for health, education, inclusion, and sustainable social development.

The Forum served not only as a celebration of scientific progress, but also as a call to action: to foster stronger networks, to champion equality and diversity in sport, to empower the next generation of leaders and researchers, and to ensure that sport remains a transformative force for our societies.

We were delighted to see so many of you engaging in discussions, building lasting partnerships, and experiencing the warmth and hospitality of our university and our city. The 17th ENSE Forum marked an inspiring milestone in our shared journey to shape the future of sport education in Europe and the wider world.

Prof. Dr. Agron KASA
Rector
Sports University of Tirana

Abstract 17th ENSE Forum organised at Sports University of Tirana in Tirana, Albania, on November 1st and 2nd, 2024, under the theme **Bridging Borders through Sport Education: The Euro-Balkan-Med Perspective.**

Edited by Prof. A. Tessitore, PhD , Prof. Dr. A. Kasa

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The Teaching Methods of Physical Activity in the Generalist Teacher Training in Italy

D'Isanto T., D'Elia F.

Department of Human, Philosophical and Education Sciences, University of Salerno, Fisciano, Italy

Teachers training for the teaching of physical education (PE) in primary schools represents a topic of great interest and relevance due to the impact that such subject has on students, on the related communities of practice and more generally on socio-educational aspects. Physical literacy is in fact functional to well-being and health due to the positive effects it can have on the different dimensions of personal development for the acquisition of specific skills as well as social, cognitive and relational skills. Recently, has been applied in Italy the mandatory teaching of physical education in classes IV and V of primary school by a specialist teacher (ST), that has a master's degree in Exercise and sport sciences. There is the provision of progressively extending the ST also to classes III, II and I, but currently it is a

task that still falls to generalist teachers that has a 5-year master's degree course in Primary Education Sciences (PES), that qualify to teach all primary school disciplines.

There has been a partial modification of the primary school system either for the mixed teaching organization, because both specialist and generalist teach PE, and for the disciplinary teaching which in some classes (IV and V) is specialized and in other classes (I, II and III he is a generalist).

The critical issues and problems have been analyzed in previous studies with exploratory investigations and the most interesting data that emerged was that both of in-service teachers and of PES students, future generalist teachers do not consider their training to be adequate for teaching PE, despite the fact that the master's degree in primary education sciences for generalist teachers have a (small, about 9 ECTS) class on teaching methods of physical activity.

Due to the critical issues that emerged from surveys on the perceptions of generalist teachers and PES students, it was considered appropriate to analyze PES training paths on PE. The aim was to outline the Italian university training of generalist teachers on teaching methods of physical activity, highlighting its coherence and congruence. This overall framework aims to promote comparison with the training

models of European countries, the Balkan and the Mediterranean area in order to compare the different training approaches of generalist teachers in PE teaching in primary school.

A comparative documentary approach was adopted. The syllabuses of 31 PE and Sports academic disciplines (MEDF) classes in PES degree courses were analyzed, to underline the congruence of the contents and the related specific learning objectives, comparing them with the Italian regulatory framework on the training of primary school teachers and with the current provisions in the field of PE, also in terms of health and well-being connected to physical exercise.

On a quantitative level, in all locations there is a homogeneity of ECTS reserved to classes and workshop on teaching methods of physical activities, however the overall number of ECTS (9 out of 300 in total of the master degree course) is low.

On a qualitative level, the comparative study of the training objectives and contents of the MEDF classes and laboratories highlights a heterogeneous organization and training on PE teaching methods that is not very effective, especially in laboratory activities which in many cases have no practical connotations. Furthermore, contents and learning objectives are not always in line with the objectives set by national indications and the need to promote physical activity for the health and physical well-being of children from an educational point of view, in some cases showing a technical (e.g. training) or a specialist nature (e.g. physiology) not consistent with the didactic-educational and methodological direction that MEDF classes and laboratories must take in the training of teachers, even generalists.

The need emerges to develop the MEDF syllabuses in a manner that is consistent with the objectives of the specific degree courses for teacher training.

It could be useful for the scientific community of exercise and sports sciences, in particular from the educational-didactic and sport education component, to promote this study within the European network sport education (ENSE) also for the theme of this conference, to delve into the topic of PE taught by generalist teachers, where present, to produce recommendations for a congruent design of university curricula for the teaching of PE by generalist teacher.

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The Influence of Parents for Fostering Children in Extra-School Mobility Activities and the Importance of Improving these Skills.

Peqini E.¹, Misja B.²

¹Department of Physical Education and Sports. Faculty Science of Education. University LuigjGurakuqi. Albania.

²Department of Education and Health. Faculty of Movement Sciences. Sports University of Tirana. Albania.

Moving and sports activities are a very important element of multidimensional development in children in sensory terms. [4] Organized extra-school programs help children grow and develop, giving them a sense of achievement. As they increase dynamic mobility activity helps them build skills of teamwork, problem solving leadership, decision-making, knowing and visualizing themselves, communicating, etc. [1] There are studies that prove that parents' participation in sports or recreational activities significantly affected the incentive for their children to participate in these organized activities. [2] Methodology, data was created through semi-structured interviews conducted with parents. [3] N = 265 of the 5 schools of Shkodra city attended randomly selected. Parents of children aged 8-9 asked three essential questions, enough to answer many questions. The result, 31% of respondents did mobility and sports activities organized outside the curriculum, 69% did not. 25.1% of the children

who were physically active came from parents who had previously been engaged in sports. 74.9% have children who do not do any lawful activities or sports outside the teaching process with parents who have not exercised sports. We have a 6% increase in parents encouraging their children to engage in organized sports. The conclusions, participation in various sports, and this age group is very low, referring to other studies[1] although there is a significant increase in parents' incentive to activate their children with sports activity, the number is still very small.

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Life 4 Fitness Professionals – Musculoskeletal Injuries

Vieira I.^{1,2,3,4}, Esteves D.^{2,4}, Ramos L.^{1,3,5}, Simões V.^{1,3,5}, Franco S.^{1,3,5}

¹Santarém Polytechnic University – Sport Science School of Rio Maior (IPSantarém-ESDRM), Rio Maior, Portugal

²Department of Sports Sciences – University of Beira Interior (UBI), Covilhã, Portugal

³Sport Physical activity and health Research & Innovation Center (SPRINT), Melgaço, Portugal

⁴Research Centre in Sports Sciences, Health Sciences and Human Development (CIDESD), Portugal

⁵Life Quality Research Investigation Centre (CIEQV), Rio Maior, Portugal

Fitness Professionals (FP) represent a crucial part of the fitness industry and perform a substantial role in the quality of the services provided and clients retention (Glaveli et al., 2023). In Portugal, from 2010 to 2021, a total of 33,359 FP licenses have been issued, however 34% (11,413) were no longer valid in 2021 (IPDJ, 2021), suggesting that a third of the FP have dropout from the profession. These numbers represent a concern to the fitness industry in Portugal. FP may be exposed to physically demanding working conditions, as evidenced by factors such as the actual number of working hours, the additional unpaid preparation time added to their paid schedule (Ramos et al., 2021), and the volume of practical exercise, which may not always allow for sufficient recovery (Bratland-Sanda et al., 2015). It has also been suggested that group fitness classes FP often work excessive hours to earn a reasonable income, potentially pushing beyond their tolerance limits for mechanical stress (Francis et al., 1985).

Based on this prior evidence, the aim of the present study was to characterize work-related musculoskeletal injuries among FP in Portugal.

A total of 466 FP responded to an online survey, and 424 valid responses were analyzed.

The sample comprised 58.5% Physical Exercise Technician and 41.5% Technical Director, of which 80.4% were working as FP. Average age was 30.39 ± 7.82 years old, and professional experience was 6.81 ± 6.69 years. 50.6% of the sample were males. The average number of group fitness classes delivered per week was 7.32 ± 7.16, and maximal number per day was 2.92 ± 2.34. The average number of paid working hours per week was 39.60 ± 19.57.

The majority (53.8%) of participants reported no musculoskeletal injuries caused, aggravated, and/or reactivated by their work as FP. However, 14.8% had experienced one injury, 14.4% had two injuries, 9.4% had three injuries, and 7.8% had between four and eleven injuries. In total, 472 musculoskeletal injuries were reported, yielding an average of 1.11±1.61 (M±SD) injuries per FP.

In terms of injury type, the most commonly reported musculoskeletal injuries were related to “joints and ligaments” (37.1%), followed by “muscles and tendons” (33.9%) and “bone fractures and stresses” (6.1%). Additionally, 12.5% of the injuries could not be classified by the FP. The most frequently reported

anatomical locations were the “knee” (21.0%), “shoulder” (14.0%), and “lower back” (12.7%). Of these injuries, 73.1% were diagnosed by a specialist, 17.8% were not, and 8.9% had unsuccessful diagnostic attempts. Furthermore, 50.8% of the reported musculoskeletal injuries were not recurrent. In terms of injury nature, 55.9% were categorized as “overuse” injuries, while 42.8% were “acute.”

FP attributed 57.0% of the injuries to their work, with 56.6% reporting reactivation of prior injuries, and 74.6% reporting aggravation of existing conditions.

The findings of this study indicate a lower prevalence of musculoskeletal injuries caused, reactivated, and/or aggravated by work compared to previous research, which often reports rates exceeding 75% (Shinde&Sahasrabudde, 2021). This discrepancy could be due to differences in the target population, as this study included all FP with a valid professional title, regardless of their specific functions or current employment status in the field.

Despite the lower reported injury rates, the results are concerning. The long-term consequences for FP, and the fitness industry as a whole, may include reduced quality of life and increased dropout rates from the profession. These findings underscore the urgent need to understand the full implications of these injuries and to develop injury prevention programs or guidelines to ensure the safety and longevity of FP careers within the fitness sector.

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Research Methods and Practical Application in Sport and Physical Education Professional Profiles

Aliberti S.

Research Center Physical Education and Exercise,
Pegaso University, Naples, Italy

In recent years, in Italy, the exercise and sport science field has undergone significant evolution, marked by the emergence of new professional roles such as the kinesiologist (basic, sport, and clinical) and the sports worker (registered members of national sports federations). Defining these two professions is essential to ensure quality standards and appropriate regulations, to avoid duplicating roles and creating confusion for both clients and professionals themselves. Previously, sports workers engaged in unpaid voluntary activities, while sports professionals practiced freely without oversight or verification from professional organizations (registers). In this context, new research methods have been developed to measure the effectiveness of regulations and evaluate the impact of legislative innovations in the field of sports work (Esposito et al., 2024; Raiola et al., 2022).

The aim was to understand the perceptions of internal and external stakeholders in the sector regarding these new professional roles—sports worker and kinesiologist—focusing in particular on the discrepancies in their training: the sports worker, trained within sports organizations, and the kinesiologist, holding a bachelor's or master's degree. Recent legislation seeks to clarify the distinct competencies of these two professional profiles, thus laying the foundation for avoiding overlap

and ensuring greater transparency in the labor market. However, the proper understanding of these professional innovations and their integration into everyday practice is still in progress.

The research method adopted in this study represents an innovative approach to evaluating the effectiveness of these reforms and their impact on sports organizations according to the socioeconomic paradigm of Environment, Sustainability, and Governance (ESG). The investigation involved professionals active in sports contexts, analyzing their perceptions and knowledge through both quantitative and qualitative tools. This approach allows for a clear understanding of the level of preparedness and awareness among professionals in the field of physical activity, with a particular focus on how the new regulations are perceived and applied.

The innovative aspect of these methods lies in their ability to connect empirical research with professional practice, thereby highlighting the practical application of scientific studies. The use of structured questionnaires and advanced statistical analyses allows for monitoring not only the subjective perceptions of professionals but also identifying trends and areas for improvement, which can guide targeted training interventions. Furthermore, this approach reflects an increasing need to measure the impact of public policies, ensuring that the new professional roles operate within a regulated framework that meets public health and well-being needs.

This innovative research methodology could also be extended at the European level, involving the Balkan region, a key area in this conference, which has an interest in becoming part of the European Union. A large-scale investigation across these countries, focused on the analysis of sports professions, would enhance sport education, and the European Network of Sport Education (ENSE) would serve as an excellent catalyst for this effort.

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Football eSports and Football, What is the Link?

Ceruso R.^{1,2}

¹Research Center Physical Education and Exercise, Pegaso University, Naples, Italy

²National PhD Programme in Kinesiology and Sport Sciences, University of Verona, Verona, Italy

Recently, Article 33 of the Italian Constitution recognises the educational, social and psychophysical development value of sporting activity in any form practised, including virtual sport. In 2017, the International Olympic Committee (IOC) recognised video games, called eSports (different from non-competitive eGames) due to their competitive nature and widespread in almost every continent, as an official sporting activity in anticipation of their eventual later recognition as an Olympic sport. Among the most popular eSports recognised by the IOC is football, called Eafc, probably because of its close connection to real football, which is the most popular sport in the world. This coincidence raises the need to analyse the 'Eafc 25' esports phenomenon among young people, because there seems to be a growing uncertainty among young footballers about the choice between playing real football and playing eSports. This uncertainty generates questions about the limited knowledge of the psychophysical effects and the educational and social value of eSports. Currently, there is no evidence between technical-tactical and psychophysical performance and the virtual practice of football eSports. The aim of this research is to measure the impact of football eSports on young footballers' perceptions, opinions and awareness, focusing on the key components: motivation, technical-tactical skills and psychophysical effects. Firstly, a literature review was

conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) method, applying eligibility criteria (inclusion and exclusion), conducting searches on the Google Scholar, Scopus and PubMed databases. The strings used were ‘Videogames AND cognitive skills’; ‘Videogames and football’; ‘eSport and athletes’. Subsequently, a sample of 42 football athletes aged between 5 and 18 years, both male and female, was recruited for a preliminary study. The sample consists of athletes attending both amateur and professional youth sectors, who, in addition to playing football, use eSports for recreational purposes. An ad-hoc questionnaire was formulated and submitted, consisting of 15 questions and divided into three parts: in the first part there is the identification of the sample, in the second part the focus is on the impact of football eSports on the aspirations and perspectives of young footballers, and in the third part the focus is on the relationship between football eSports and the actual practice of football. A descriptive statistical analysis was carried out followed by an application of the Chi-Square to understand any significant relationships between the qualitative variables. The PRISMA review revealed relationships between football eSports and real football, i.e. between virtual and real practice, as well as relationships between eSports and the development of certain cognitive skills. These findings enabled the development of the ad hoc questionnaire to be submitted to the sample of the preliminary study, which yielded the following results. 64.3% play football eSports at least 3 hours per week, 57.1% who play football eSports positively influence their motivation to play real football, especially in the adolescent period, by providing a playful and stimulating alternative to only playing real football. 73.9% play football video games regularly and show a perceived improvement in football-related cognitive skills, such as game vision, decision-making competence and game strategy. 69% find it quite useful to use football video games to find new tactical strategies during real matches. The Chi-Square test revealed a significant relationship between the weekly hours spent playing video games and the perceived improvement in football-related cognitive abilities ($p=.001$), as well as a positive influence on the motivation to play football ($p=.032$). Furthermore, a further significant relationship was found between the perceived influence of video games on the motivation to play football and the

influence on the latter’s career choices ($p=.010$). The significant role of football esports in adolescent real-life football players also emerges due to the entertainment opportunity it offers, as well as the increase in motivation to play real-life football and the improvement of football-related cognitive skills, such as the perception of young footballers on the real-life application of football. It would be useful to extend this research to an international level in order to fully understand the incidence of eSports in the sporting context in the European countries of the Balkan and Mediterranean region in order to highlight similarities and contradictions with respect to the Italian territory. Such an extension would represent a significant development opportunity for educational sport, the mission of the European Network of Sport Education (ENSE).

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Sport Education in School Between Curriculum Studies and Competition: An Italian Case Study to Compare to EU Countries

D’Elia F.

Department of Human, Philosophical and Education Sciences, University of Salerno, Fisciano, Italy

Combining high-level sporting activity with study and work represents a challenge and one of the key priorities established by the European Commission. There are many projects in the EU member countries which have supported the conception and dissemination of initiatives and projects funded by the European Union which have made possible to intervene in the various areas and aspects in which the DC is expressed.

Despite the many initiatives implemented and the numerous funded projects, there are gaps both in the literature and in practice regarding the support necessary for junior athletes DC (adolescents between 15 and 19 years old) with a comparative European

perspective.

However, the literature that deals with National initiatives is quite extensive, and as regards the Italian situation, there are several studies that have dealt with and explored the development of the DC of Italian secondary school students, analyzing peculiarities and problems, proposing models and good practices, but there are no evidence on the school-university educational continuity and on the degree of “dispersion” of the sport talents nurtured during high school, when they proceed from secondary school to the University or the world of work.

In fact, according to statistics of Ministry of University, approximately two million students (1,909,360) are enrolled in Italian universities, of which 334,885 were newly enrolled in the academic year 2022/2023, but the number of student-athletes who benefit or could benefit of the dual-career programs is not quantified, nor the initiatives implemented by each universities are systematized.

The general objective of this study is therefore to describe the Italian approach to the DC of junior student-athletes attending high secondary schools with the aim of highlighting the Italian know-how in supporting the careers of student-athletes to safeguard the presence of young athletic talents both in sport and in the educational system and to promote the Italian planning model in the Balkan, European and Mediterranean areas and to encourage a broader comparative knowledge of the phenomenon. Specifically, we intend to identify the actions implemented by Italian universities to guarantee school-university educational continuity.

A documentary approach was adopted. The analysis of literature and the reading of ministerial documents (Decrees and Notes) and reports relating to the high-level student-athlete project has been carried out. The Unisport Italia shared database on DC in Italy was also consulted to know the Italian university dual career offer. The database was used to identify the initiatives implemented by universities to promote continuity between high school and university.

The high-level student-athlete project has notable and progressive success in quantitative terms: the number of students (and consequently the number of schools) who participated in the project has grown exponentially from 450 students in the school year 2016/2017 to 48,520 students (of which 7320 enrolled in the fifth year) in the school year 2022/2023. There is no count of the number of student-athletes who

continue their careers at university and to which are recognized their student-athlete career in high-school, for example in terms of additional curricular scores. It emerged that 49 Italian universities (of which 44 state university - 72% of the total - and 5 non-state university - 25% of the total) provide specific dual career programs, offering a series of benefits (e.g. part-time enrolment, ECTS recognition, scholarships, justification for absences, tax exemption, mention of sporting activity in the Diploma supplement, etc.) which highlights the flexibility of exam dates (in 47 out of 49 universities), the tutoring activity (in 44 out of 49 universities) and access to sports facilities (in 27 universities on 49).

It emerges the need to activate a national school-university network, for example also in the context of orientation activities, which can guarantee the implementation of the recommendation to recognize the path completed in high school as an element of reward capable of encouraging the continuation of the DC at university, generating a virtuous cycle that leads to raising the level of education and instruction of athletes, thus also expanding the opportunities for the professional future after the conclusion of their sporting career.

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Strength Development in Physical Exercise and Impact on Daily Life and Psychophysical Wellbeing

Di Lascio G.^{1,2}

¹Research Center Physical Education and Exercise, Pegaso University, Naples, Italy

²National PhD Programme in Kinesiology and Sport Sciences, University of Verona, Verona, Italy

The application of regular exercise programs offers numerous benefits, such as slowing down the aging process and promoting physical and mental well-being (Berchicci et al, 2013). The World Health Organization (WHO) has therefore developed guidelines on the amount of physical activity, in terms of caloric expenditure, with specific exercise programmes for different age groups and for specific groups with adapted physical activity (Bull, 2020). Physical exercise is covered in the broad scientific paradigm of lifelong learning, as, to ensure lifelong learning, it is necessary to break down the ordinary physiological decay while preserving as much as possible the functionality of physical and cognitive structures with effort corresponding to the specificities of the different ages. In order to preserve these functions, it is useful to develop strength in its various expressions: maximal, fast, and resistant depending on the need as it benefits at the muscular level, for the increase in mass, and at the level of the central nervous system for the beneficial effects of neuromediator production and the creation of new connections with the various motor units. Currently, the scientific literature does not provide data regarding the perception and opinion about strength development through exercise programs in relation to psychophysical well-being in accordance with lifelong learning. The study aims to assess the effectiveness of protocols for strength development through physical exercise and collect data on perceptions and opinions about the impact of such programs on daily life and on psycho-physical well-being. The sample consists of 24 people (14 male and 10 female) aged between 35 and 55, with different work positions with different levels of sedentary. Participants were administered two tests, both at the beginning and at the end of the study: The isometric mid-thigh

pull, a scientifically validated test (James, 2017) to assess maximum isometric lower limb strength values, and the Hand grip test, the latter still not scientifically validated, to assess upper limb strength levels. Between the incoming and outgoing tests, a strength development protocol was administered 3 times a week for 12 weeks. The data analysis was descriptive, later supported by the T-Test analysis for dependent samples to assess significance. The results show an 8.5% improvement in the peak strength of the right limb and a 9.8% increase in the left limb, with values of significance equal to $p = 0.000000058$ for the right hand and $p = 0.0000014$ for the left hand. The Mean Force shows an improvement of 7.3% on the right and a growth of 8.9% on the left, with values of significance of $p=0.000068$ and $p=0.00012$ respectively. Strength levels related to the IMTP Test showed an increase of 10.7% for Peak Force (PF) and 10.3% for Mean Force (MF), with significance values of $p = 0.0000013$, for PF, and of $p=0.0000038$ for MF. From the questionnaire responses, it is shown that about 70% perceive themselves to be more motivated to reduce sedentary levels within their day, more than 80% believe they have benefits in their daily life due to the exercise protocol. From the overall results of the study, a significant correlation emerges between strength development through exercise protocols and participants' perceptions of the benefits it can have in everyday life. It would be interesting to expand such a study, using it the same quantitative model of surveying the effects of exercise protocols on fitness and at the same time the qualitative/quantitative model of perceptions and opinions to countries with different socio-cultural traditions and, on the occasion of today's scientific comparison, to the territories of the Balkan and Mediterranean region, including those outside the European Union to extend the innovative idea of combining quantitative research with qualitative research applied to physical exercise.

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Effects of 6-Week Preseason Small-Sided-Game-Based Training on Aerobic Capacity

Dodaj M., Kaçurri A.

Department of Sports Performance, Sports Research Institute, Sports University of Tirana, Tirana, Albania

Small-sided games have gained popularity as an effective training method due to their ability to replicate game-like situations while incorporating aerobic and anaerobic components. Several authors have classified tasks according to different levels of approximation, specificity and concreteness concerning the actual game, categorising them as general, directed, special and competitive (Seirullo et al., 2017). This study investigates the effects of a 6-week pre-season small-sided game-based training program on aerobic capacity. The research will involve 21 soccer players of K.fTeuta in the first division in Albania undergoing the training program, with their aerobic capacity measured before and after the intervention. The measurement was made using the field test 30-15 IFT test. During SSG training sessions, we have modified different variables: a) The playing space: short, long, wide or narrow (Dellal et al., 2012b). The relationship between the players: number of players, wild cards, game systems, inferiority, and superiority (Casamichana et al., 2018). The formats of SSGs that affect neuromuscular aspects such as accelerations, decelerations and changes of direction have been characterised by being carried out in a small space and with a low volume of players (<100 m²/player). We would perform tasks in a large space with a low volume of players (>100-

200 m²/player) when focused on endurance actions. When we were focused on low-intensity sessions in the three areas (strength, endurance and speed), that is, a small quantity of load, we will perform tasks in small spaces and with many players. On the other hand, when we have stimulated high-speed actions, we will carry out tasks in large spaces with many players (>100-200 m²/player). The results of the study indicated an improvement in the average VO₂ max of the soccer players. The initial average VO₂ max at the beginning of the pre-season was recorded at 55.5 ml/min/kg, and following the completion of the pre-season, it showed an increase to an average of 59.1 ml/min/kg. The findings of this study highlight the positive impact of small-sided games (SSGs) on improving VO₂ max, indicating that SSG-based training can be an effective method for enhancing aerobic capacity in soccer players. This supports the potential of SSGs as a valuable training approach for developing players' cardiovascular fitness, thus contributing to their overall athletic performance.

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Research Impact and Practical Applications in Sport and Physical Education: A Study of Italian Researchers

Esposito G.

Department of Human, Philosophical and Education Sciences, University of Salerno, Fisciano, Italy

In recent years, the landscape of Exercise and Sports Sciences (ESS) in Italy has undergone significant evolution, marked by a renewed commitment to scientific research, accompanied by updates to the scientific knowledge required by the European Union (EU) to secure funding from the Next Generation EU investment plan, specifically for Italy's allocated portion. These changes have led to increasing attention to establishing quality standards and the integration of sports practice and scientific research. In this context, new research methods have been developed to measure the impact of scientific production in the field of ESS (D'Isanto et al., 2024; Raiola et al., 2024). The purpose of this study is to measure the consistency of the impact of Italian researchers' scientific production in ESS from 2017 to 2022, using the international classification model of domains, fields, and subfields (Rivest et al., 2021), adapted to the peculiarities of the Italian knowledge classification system. The analysis of the scientific production of Italian scientists was categorized by roles and functions: full professors, associate professors, and researchers from both academic disciplines within the ESS field. The list of 200 scientists was obtained from the Researcher Discovery search function of Scopus Elsevier, with a filter applied based on the country of affiliation of each scientist's institution. The analysis extracted data on the number of articles, citations, and h-index for each of the 200 Italian researchers, covering the period from 2017 to 2022. Subsequently, the articles of individual Italian scientists associated with each of the six keywords were identified in the Scopus database through the detection of keywords, which are already indexed in the database based on the titles and abstracts of the uploaded articles. The six keywords are: "Sports", "Physical education", "Physical training", "Physical exercise", "Sport

education" and "Sports science". For each article associated with a specific keyword, data on the number of citations received was extracted. The h-index for each keyword was then calculated, resulting in the creation of "relative" citation indices (h-index) for each keyword. To measure the trend between the total and relative metrics (articles, total citations, and h-index) during the 2017-2022 period, Pearson's correlation was applied. The analysis revealed positive and significant relationships between total citations and h-index compared to the same indicators related to the subfield of Sport Sciences, both among corresponding and cross-indicators. This finding is particularly significant, as it indicates that overall production and impact align with those related to the subfield. This suggests that Italian scientists produce and impact proportionally between overall research and research specific to the keywords constituting the subfield of Sport Sciences. This innovative research methodology could be expanded at the European level to include the Balkan Peninsula, which is the focus of this conference and is interested in fully integrating into the European Union. A large-scale survey in these countries, aimed at evaluating the impact of scientific production in ESS compared to general production, would enhance Sport Education, with the European Network of Sport Education (ENSE) serving as an excellent catalyst for this initiative.

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Rediscovering Graphomotor Skills: An Educational Necessity in the Digital Age

Giardullo G.^{1,2}

¹Research Center Physical Education and Exercise, Pegaso University, Naples, Italy

²National PhD Programme in Kinesiology and Sport Sciences, University of Verona, Verona, Italy

In recent years, the expansion of digital technologies has profoundly transformed the way of life that also affects pre-school and primary school students as they increasingly type instead of write and draw, this change has altered the way they play and socialise, but also the way they acquire knowledge and learn skills. In particular, we are increasingly seeing a disruption of skills that, until a few decades ago, were considered to be taken for granted or ordinary in child development, such as fine-motor coordination skills. Activities such as writing and drawing, which require specific fine-motor coordination skills, not only contribute directly to the subject-related learning of these tasks, but also activate elaborative processes that are fundamental for the acquisition of other knowledge. These practices, in fact, predispose the child to develop processing skills, demonstrating a clear causal link between the development of such skills and success in more complex learning. Manual processing, whether written or drawn, is fundamental to education as it promotes memory, creativity and the development of accurate operations, fostering critical thinking and higher cognitive engagement, opportunities that are difficult to achieve with typing. Motor development between the ages of 5 and 11 years is not only indispensable for a child's physical efficiency in terms of quantitative strength, speed and physical endurance, but also concerns cognitive development with regard to technical skills, or motor learning, that are *unicum* with perception. In particular, fine-motor skills, those related to the control of the small muscles of the hands and fingers, play an essential role in the performance of daily routine activities that are continuously stimulated by drawing and writing. These skills require precise movement coordination and spatial planning skills that the child develops and refines precisely during

the first years of life. The absence of activities such as drawing, writing and manipulating materials to create artefacts or handicrafts is mainly blamed on the school, which should provide these educational experiences, and to a lesser extent on families. This underlines the shared responsibility between educational institutions and family contexts in the development of such aptitudes.

The aim of the study is to explore in greater depth the aspects of fine-motor skills that are linked to the graphic representation of drawing, with regard to children in the 5 to 11 age group, with the final objective of carrying out a cognitive survey of the current situation and identifying the most critical areas. The sample consisted of 60 children (26 F and 34 M) aged 5 to 11 years, who attended a summer camp during which they were engaged in outdoor motor activities. The method adopted involves administering the Hand to Shape Test, specifically validated to investigate areas that only affect graphomotor representation through analysis and evaluation of drawing, used by psychomotricists to diagnose broader psychomotor disorders. The post-test results showed that 87% of the sample was adequate, 7% at risk and 5.3% inadequate. In the space area 65% were inadequate, 15% at risk and 20% normal. In the qualitative assessment, 70% had a correct posture during the test, 36% used a 'wrapped thumb' grip, 66.7% followed the correct order of copying the figures. Statistical analysis using Pearson's correlation showed that the correlation value between age and motor quality score was $r=0.580244$, a moderate-strong positive correlation. The correlation between time and overall score is $r=-0.0176$, a value very close to zero.

The results of the study confirm that, despite increasing digitisation, a good percentage of children maintain adequate motor skills. However, several critical areas emerge, such as visual-spatial skills, motor quality and posture, which require targeted interventions that should focus more on focused and well-organised strategies, especially in relation to the development of fine-motor skills. It would be useful to extend the application of this study to other types of populations, of different territories and cultures such as the Balkan and Mediterranean ones, even those outside the European Union, and thus broaden the typology of data and contextualise beyond national borders the outcomes of grafo-motor involution and, specifically, of inadequate levels

of fine-motor coordination compared to the past. This would contribute to the creation of research synergies starting from activities that have already been successfully tested in Italy, with a view to the development of physical education and child motor development. Such synergies, hopefully promoted by the European Network of Sport Education (ENSE), could also find consensus among national political authorities in order to achieve the goal of integration into the European Union.

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for improvement based on successful models from other European countries. By promoting stronger cooperation among sports federations, educational institutions, and government bodies, Kosovo can create a more supportive environment that enables athletes to excel in both their sports endeavors and their academic or professional lives. Such progress is essential for the long-term development of sports and for enhancing the overall socio-economic landscape of the country.

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Dual-Career in the Republic of Kosovo: Current State and Future Perspective

Gjaka M.¹, Feka K.^{2,3}

¹Department of Sport and Movement Science, University for Business and Technology, Prishtina, Republic of Kosovo

²Ministry of Culture, Youth and Sport, Department of Sport, Pristina, Republic of Kosovo

³Department of Health Sciences, Universum College, Pristina, Republic of Kosovo

The dual-career concept, which involves balancing athletic and academic or professional pursuits, has gained increasing attention worldwide. In the Republic of Kosovo, this model is particularly important as the country aims to enhance both its education system and sports sector simultaneously. Therefore, the aim of this study was to examine the current state of dual-career opportunities in Kosovo, focusing on athletes who manage sports commitments alongside academic education. By analyzing existing policies, institutional support, and the challenges faced by athletes, the study has identified a significant gap in systematic dual-career frameworks that hinders the optimal development of Kosovar athletes. The absence of specialized programs, financial assistance, and institutional collaboration restricts athletes' ability to effectively balance both careers. Additionally, this study explores the future potential of dual-career frameworks in Kosovo, suggesting pathways

Mentorship as a Lifelong Developmental Relationship for Coaches: A Grounded Theory Study

Edited by Karl G.

Malta College of Arts Science & Technology, Malta

The proposed research investigates the mentor-mentee relationship within sports coaching in Malta using grounded theory as the research methodology. Grounded theory allows for the development of a theory based on data from mentoring practices mainly in Maltese sports coaching. The study focuses on mentoring structures, perceptions, and behaviours, exploring how these can improve the sports coaching landscape in Malta. Mentoring is identified as a key factor in enhancing coaches' knowledge and expertise to promote a better experience for their students/players. It is a relationship-based process where an experienced individual imparts expertise and career advice to a less experienced mentee. The research aims to explore the importance of mentoring, for sports coaches by employing a model based on direction, observation, and active learning. Through this model, mentors help mentees develop both professionally and personally, by empowering them with knowledge and practical skills. Understanding the dynamics of the mentor-mentee relationship is crucial, for the mentor, as it influences the mentee's psychological motivation, physiological abilities, and sociological capabilities (such as relationship-

building). The quality of these relationships has a significant impact on the mentee's motivation, performance, and behaviour in sports coaching.

The study employs grounded theory through a constructive philosophical approach to gather data and co-develop insights with four Maltese sports coaches from diverse disciplines and two experienced coaches from countries with established formal mentoring systems. Through this analysis, a conceptual model of mentorship in sports coaching is developed which outlines that mentoring is an essential platform for sports coaches to develop and progress throughout their careers. The data collected was inputted into the MAXQDA programme and the following categories emerged: -Challenges of Isolation Without Mentorship A significant finding from the research is the isolation many coaches feel without proper mentorship. The Need for Ongoing and Personalised Mentorship - One of the key insights from the study is that mentorship should be continuous and personalised, rather than a one-time or short-term intervention generic. Barriers to Formal Mentorship Programmes - Despite the clear benefits of mentorship, research identifies several barriers that prevent the widespread adoption of formal mentoring programmes. This grounded theory approach demonstrates that mentorship is more than just an instructional tool, it is a developmental relationship based on various dimensions that support coaches throughout their professional journeys.

This research offers a comprehensive framework for understanding how mentorship can be successfully integrated into the long-term development of coaches, providing insights applicable not only to sports coaching but also to other professional fields where there exists some type of supervisory role. Investment in mentorship is essential for sustainable, effective education and career progression for coaches.

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Integrating AI and XR Based Technology for Sport Education (Classroom 4.0) At UBT Smart City

Hajrizi E.

Founder and Rector of University for Business and Technology, Prishtina, Kosova

We are living in the times of convergence revolution which represents a very high dynamic and complex environments.

This dramatic transformation including using AI and other advanced technologies creating opportunities, but also new requirements for new competences and skills. Traditional education is not enough today to provide required future skills including skills adaptability, problem solving and collaborations.

This requires a new solution for education, with high complex and very dynamic oriented models and systems.

To support this causa, UBT – University for Business and Technology has created its own model called UBT 5S – Small Scale Smart Selfsustained System or short UBT Smart City.

UBT Smart City represents now an Entrepreneurial

Smart and Sustainable Innovation based Ecosystem. This model represents a dynamic complex system and is created to use as test bed system for smart and self-sustained solutions for education, innovation, and development.

Made from different components for life and different technologies UBT Smart City create a great opportunity to use Advanced and Innovation Technologies for Sport Education and Training of Coaches and PE Teachers too.

Cases of using AI and XR Technologies in Sport Education are presented to see the opportunities which is provided from UBT Smart City Ecosystem (Classroom 4.0).

Classroom 4.0 provide many benefits including: AI-powered immersive learning platform, quickly creates courses for new type of job skills, cost effective, flexible, real-time update, accessibility, and inclusive retraining opportunities.

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Trasformative Sport: The “Progetto Filippide” Experience in Tirana

Hoxha J.¹, Pannone C.²

¹Sports University of Tirana, Albania

²University of Rome “Foro Italico”, Rome, Italy

The exploratory study aims to understand the changes brought about by the introduction of an innovative sports project initiated by ProgettoFilippide among all stakeholders involved. ProgettoFilippide is an amateur sports association that focuses on training and preparing individuals with autism and related rare syndromes for competitions. Currently, it is active in the Albanian territory, specifically in Tirana (UST), involving seven young individuals with autism. The project was made possible through close collaboration between state institutions, academic bodies, and civil society, representing the first example of sports activities aimed at individuals with autism in the Tirana area.

ProgettoFilippide’s mission aligns with the UN Convention on the Rights of Persons with Disabilities, which emphasizes the importance of ensuring that individuals with disabilities have their fundamental rights respected. One of these rights, as expressed in Article 30 of the Convention, is the right to participate in cultural life, recreation, leisure, and sport. By focusing on this right, ProgettoFilippide aims to provide young individuals with autism the opportunity to engage in sports, which can significantly enhance their quality of life, social skills, and overall well-being.

The project’s inception two years ago marked a significant milestone in the Albanian context, where such initiatives were previously non-existent. The collaboration between state institutions, academic bodies, and civil society was crucial in establishing this project. State institutions provided the necessary regulatory support and resources, academic bodies contributed with research and expertise, and civil society organizations helped in mobilizing the community and raising awareness about the importance of inclusive sports programs.

The study seeks to understand whether the project has contributed to changes in the context by promoting equitable, inclusive, and sustainable actions. To achieve this, a series of focus groups and interviews will be conducted. These will include the beneficiaries, namely the young individuals with autism and their families, the managers and sports operators of ProgettoFilippide-Tirana, institutional figures, and prominent figures from the University of Sports of Tirana involved in the project.

The focus groups will provide a platform for all stakeholders to share their experiences, insights, and suggestions. The young individuals with autism and their families will be able to discuss how the project has impacted their lives, both positively and negatively. The managers and sports operators will share their experiences in implementing the project, the challenges they faced, and the successes they achieved. Institutional and academic figures will provide an in-depth analysis of the actions developed in collaboration with the association and how this alliance has impacted the social mission of the institutions.

By gathering data from these diverse groups, the study aims to paint a comprehensive picture of the project’s impact. It will explore how the project has influenced the lives of the young individuals with

autism, their families, and the broader community. It will also examine the project's sustainability and potential for replication in other regions.

The study will also look at the project's sustainability and potential for expansion. It will explore the factors that have contributed to the project's success and the challenges that need to be addressed to ensure its long-term viability. By identifying these factors, the study aims to provide recommendations for replicating the project in other regions and expanding its reach to more individuals with autism.

In conclusion, this exploratory study aims to understand the changes brought about by the introduction of ProgettoFilippide, an innovative sports project for individuals with autism in Tirana. By conducting focus groups and interviews with all stakeholders involved, the study seeks to gather comprehensive data on the project's impact. The findings of this study will provide valuable insights into the effectiveness of inclusive sports programs and contribute to the ongoing efforts to promote the rights of individuals with autism.

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The Impact of Daily School Physical Activity on the Body Mass Index, Speed, Gross Motor Development and Wellness of Primary School Children. An Experimental Study in Malta

Kerr-Cumbo R.¹, Muscat-Inglott M.¹, Attard K.², Schembri H.¹, Darmanin M.¹

¹Malta College of Arts Science & Technology, Malta

²Malta Football Association

This study explores the impact of a daily physical activity (PA) programme on the body mass index (BMI), speed, gross motor development and psychological wellness of Year 4 students in Maltese state primary schools. Concerns about childhood obesity and insufficient PA are prevalent globally, and the mediterranean islands of Malta is no

exception. To address this sociocultural in the issue, the Fun Fit 5 (FF5) programme was implemented to integrate daily PA into the school routine. While substantial evidence exists on PA's role in improving physical and psychological health, there is still a gap in understanding its specific impact on children's gross motor development and overall wellness within a structured school setting. This quasi-experimental study involved 83 students from three schools, divided into treatment and control groups. The treatment group participated in daily PA sessions, while the control group followed their usual routine without any additional intervention. Pre- and post-testing assessed body mass index (BMI), sprint time and gross motor skills, using the Test of Gross Motor Development-3 (TGMD-3). Wellness was measured using the Multidimensional Students' Life Satisfaction Scale (MSLSS), which evaluates life satisfaction across several domains, such as friends, family, school, and self. Increase in BMI was less pronounced in the treatment group over time (+0.34) than in the control group (+1.08), this effect was not significant, and hence evidence was not sufficient to reject the null hypothesis ($b = -0.72$, $F = 0.24$, $p = .62$), so we cannot infer that there was any significant effect of the treatment. In speed testing, it was evident that a slightly greater reduction in time is visible with respect to the treatment group, although the inferential statistical model was not statistically significant ($b = -0.09$, $F = 0.41$, $p = .53$). Results from the TGMD-3, indicated that there were slight improvements in the treatment group's gross motor skills, as measured by the TGMD-3, although these changes were not statistically significant. Specifically, the treatment group showed small improvements in their locomotor skills, with the average pre-test score increasing from 3.56 to 3.66 ($p = 0.86$). Similarly, there were modest gains in object control skills, with the average pre-test score rising from 3.42 to 3.53 ($p = 0.88$). The results of the MSLSS indicated that there were no significant changes in the treatment group's psychological wellness. The average pre-test and post-test scores across the five domains of the MSLSS (friends, family, school, living environment, and self) remained relatively stable throughout the intervention period. For instance, the average score for "satisfaction with friends" decreased slightly from 5.01 to 4.96 ($p = 0.06$), while the average score for "satisfaction with school" showed no significant change (pre-test = 4.68, post-test = 4.52,

$p = 0.07$). These findings suggest that while the Fun Fit 5 programme had a positive impact on children's motor development, the eight-month intervention period may not have been long enough to produce significant improvements. In conclusion, while the FF5 programme demonstrated the feasibility of integrating daily PA into the school day without negative consequences for children's gross motor development or wellness, future research should focus on long-term interventions to fully understand the potential benefits of school-based PA programmes on both physical and psychological well-being.

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Mentor Growth and Competency Building Within the GEIN Project: A Study Proposal

Kesämaa H., Mattila M.

Department of Business management, South-Eastern Finland University of Applied Sciences, Finland

In recent years, various aspects of sustainability, such as gender equality, diversity and inclusion, have gained significant attention among stakeholders in the sports sector. A key driving force behind this is the UN Sustainable Development Goal 5, which emphasizes the promotion of gender equality and the empowerment of women.

In alignment with these principles, the GEIN project has been developed to empower sports actors in Albania and Kosovo. The project primarily targets female sports leaders and coaches, aiming to promote gender equality and enhance leadership skills through an educational program and mentorship. Mentorship plays a crucial role in achieving the project's objectives. In this paper, we are interested in the mentors' personal development during the process. Within the project, mentoring is focused on the theme of equality. A total of 25 mentors from four different countries participate in the project. They come from diverse backgrounds and possess varied skills, but the common thread is that their professional or voluntary activities are related to sports.

This study seeks to explore the perceived benefits that mentors have gained from their participation in the project. It will investigate mentorship from the mentors' perspectives, drawing on their personal reflections.

Following research questions guide this study: *How have the mentor's own competencies developed during the mentoring process? What are the most significant benefits of mentoring for the mentors?*

The study will provide empirical insights into how the mentoring process has contributed to the mentors' own skill development and personal growth. Rather than aiming to generalize the findings, the study seeks to deepen understanding of the personal development of the mentors.

In this study, mentoring is understood as a developmental relationship wherein a more experienced individual (mentor) provides guidance and support to a less experienced individual (mentee). The primary aim of mentorship is to foster the mentee's personal and professional development, enhance skill acquisition, and facilitate career progression. However, mentoring also has the potential to contribute to the personal and professional growth of the mentor (Klinge, 2015; Garvey & Stokes, 2022). Given that mentoring is often a voluntary activity, mentors are driven by various intrinsic and extrinsic motivations. Intrinsic motivations may include personal satisfaction, a commitment to supporting the next generation, and a desire for self-reflection and personal development. Extrinsic motivations, on the other hand, may encompass opportunities for skill development, career progression, professional networking, and recognition within their field. Additionally, mentoring offers social benefits, such as the formation of new professional relationships and connections (Klinge, 2015; UnnyGuptan, 2018). While much of the existing research on mentorship emphasizes the mentoring process, its content, outcomes, and the mentee's perspective, there remains a notable gap in the literature concerning the use of mentoring within the sports sector and its impact on the development of mentors' own competencies. Hancock et al. (2017) suggest that mentoring is a critical factor in advancing the careers of women in athletic administration. Wong (2017) explored how mentors develop their skills and knowledge within the school context, while Behar-Horenstein et al. (2019) examined the impact of a mentoring program on the enhancement of mentors' competencies.

This study employs a qualitative research approach to explore the development of competencies and the benefits experienced by the mentors. The mentors serve as key informants for the study.

Empirical data will be gathered through the mentors' written reflections, supplemented by semi-structured interviews with 5–7 selected mentors. The interviews will be conducted online. The data will be analyzed using content analysis to identify recurring themes and insights. Additionally, secondary data, including project reports and materials from workshops, will be incorporated to provide further context and support the analysis. Data collection will take place between March and May 2025, with the final results scheduled for presentation in October 2025.

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Chivalric Disposition and Sport: The Last Crusaders

Muscat-Inglott M., Zvicer N.

Malta College of Arts Science & Technology, Malta

This presentation introduces the concept of Chivalric Disposition (CD), defined as the uptake of a particular set of values heritable through processes of cultural evolution since humanity's earliest origins. Drawing on recent scale-validation research, the values in question are specifically centred around three main dimensions, namely, fortitude (valuing strength and resilience), deference (valuing cooperation with and for others) and virtue (valuing abstract ideals and higher powers). In this sense, the Balkans, Europe and the Mediterranean were the staging ground for one of the most explicit historical manifestations of chivalry; the Crusades. The presentation aims to encourage reflection on the role of sport in the development and perpetuation of the same values that spurred on fanatical crusaders, and in the process, contribute towards contemporary initiatives that seek to bridge Euro-Balkan-Med cultural borders. By invoking parallels between Crusaders and contemporary combat athletes, the presentation aims to explore how chivalrous values have persisted and evolved within the microcosm of sports subcultures, likely reflecting the broader cultural landscapes in which they are embedded. Given that sports environments frequently promote value systems comparable to those of traditional warrior codes, coaches and sports educations are thus challenged to more critically examine their possible complicity in reinforcing values that could lead to division, conflict and social stratification. Engaging with an updated, clear definition of chivalry as a culturally evolved set of values offers an opportunity to reframe sport as a tool for fostering new, more inclusive and life-affirming values that support the development of a more just society.

The CD Scale in particular is presented as a new and novel methodological tool used to measure the uptake of these values. It was most recently employed in a survey of Maltese athletes from both combat and non-combat disciplines. Athletes across

all sampled disciplines duly exhibited, through their CD scores, entrenched remnants of chivalry. The findings furthermore support the notion that combat athletes are more likely to perceive visible injuries as badges of honour, echoing the classical chivalrous ideal of valour, and signaling a degree of consent to self-harming, self-sacrificial behaviours in the name of a form of honour that is, at best, ambiguous and difficult to define. Adopting a Nietzschean philosophical lens, sports academics are invited to reflect on how the transmission of chivalrous values through sport may inadvertently contribute to the perpetuation of entrenched and unjust hierarchical socio-economic power structures and the broader social divisions they reinforce. Unexamined and misguided senses of honour, duty and loyalty present render individuals vulnerable to exploitation, as those with power to influence grand cultural narratives issue uncritically accepted appeals to the public's sense of chivalry. The presentation aims to explore such themes in light of recent data from studies using the CD scale, and offer cause for critical reflection on the cultivation of values in coaching and educational sporting contexts. Researchers are similarly encouraged to consider the CD Scale as a methodological tool for exploring broader questions about the role of sport in transmitting and cultivating CD in various contemporary cultural landscapes where its implications remain poorly understood.

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The Impact of 10-Week Combined Training on Strength and Speed in Young Volleyball Players

Nurja A, Lleshi E.

Department of Sports Performance, Sports Research Institute, Sports University of Tirana, Tirana, Albania

Volleyball is categorized as a complicated sport with technical, physical, and tactical requirements which are achieved through a series of explosive

physical capabilities and unique motor abilities. These features include speed, endurance, power, and strength (Saeed, 2013). 50% of the training session (in total) in volleyball should be focused on practicing and developing strength. (Nejić, Herodek, Živković, & Protić, 2010). Volleyball players should use strength to perform the most important actions such as; vertical jumps, lateral movements, horizontal jumps, and more. (Lehnert, Lamrová, & Elfmark, 2009). Another basic component that volleyball athletes use to achieve good performance is speed (Šimonek, Horička, & Hianik, 2017). It is important to develop strength and speed characteristics from a young age in volleyball players. The development of strength and speed is associated with vertical jump in volleyball. Method: This study aims to improve strength and speed components through 10-week combined training in young volleyball players (female). Twenty-four volleyball players (Under-16) participated in the study. Twelve participants were included in experimental group and the other twelve in the control group. The first testing period comprised: anthropometric measurements (body height, body weight, BMI), standing vertical jump test, CMJ-steps, 10-meter sprint test, and 20-meter sprint test. Testing was conducted before and after training programs. Combined training was performed 3 times/week for 10 weeks. Data have been analyzed with descriptive statistics (mean and standard deviation) and one-way Analysis of Variance (ANOVA) to find out the inter-group differences. Results: The results of the study show that vertical jump significantly increased 2.50 cm ($P < 0.001$) in experimental group. There was a significant improvement in CMJ-steps test 2.90 cm ($P < 0.003$) in experimental group. There were improvements in 10-meter sprint test for experimental group -0,30 sec ($P < 0.2$). The significant improvements in 20-meter sprint test for experimental group -0.10 sec ($P < 0.000$). Conclusion: In conclusion combined training on strength and speed in young volleyball players has proved useful for the improvements of standing vertical jump, CMJ-steps, and 20 m sprint tests.

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Promotion of Physical Activity During Pregnancy and Postpartum: Why Should We Care About Education?

ajaujiene S.

Department of Coaching Sciences, Lithuanian Sports University, Kaunas, Lithuania

Challenges for practicing physical activity (PA) during pregnancy and early postpartum are numerous and include lack of knowledge about existing recommendations, unawareness of how to engage in PA, lack of social support, fear and unavailability of PA offers (1). Despite the overwhelming scientific evidence that active lifestyle during the perinatal period has many health benefits for the mother and child and leads to a healthy pregnancy, delivery and faster postpartum recovery (2), studies have shown that most health and exercise professionals have little competency about prenatal and postpartum PA and pregnancy-related benefits or resources to adequately address the topic (3-4). In addition, more and more women, their relatives or even specialists are faced with various myths about sports during pregnancy and the postpartum period. Therefore, it is important to discuss the following questions: How to promote healthy lifestyle, daily PA and limit sedentary time in pregnancy and postpartum? What competency needs

and standards exists for pregnancy and postpartum exercise professionals?

The aim of this study is to present the overview of scientific evidence and challenges for exercising during pregnancy and early postpartum, and a pilot analysis of the knowledge of Lithuanian exercise professionals about this topic.

Document analysis and a survey were used to conduct the research. To assess the theoretical competences of exercise professionals, we used the 'International Competency Questionnaire for Exercise in Pregnancy and Postpartum' (NEPPE project). The test contained 30 closed questions, covering issues corresponding to the lifelong learning standards 'Exercise in Pregnancy and Postpartum Exercise', developed by EuropeActive (5). According to them, the role of such a specialist is to encourage novice and physically active women to exercise at all stages of pregnancy and the postpartum period, therefore they need solid and scientifically based knowledge and practical skills.

182 exercise specialists (43 males, age range 18-65 years) participated in the Lithuanian pilot study. It was revealed that most of the respondents lack knowledge about exercise during pregnancy and after childbirth - almost half of the respondents (45.2%) have insufficient knowledge (assessment >50%), and 29.4% have poor and average knowledge (19.8%). The average of knowledge scores did not differ significantly between age and gender groups ($p > 0.05$). Almost two-thirds of the participants (78.6%) agreed with the opinion that pregnant women and women who have given birth are not physically active enough and do not continue their training programs during this period, therefore proper motivation and specialist training are necessary.

Most exercise professionals have insufficient knowledge about prenatal and postpartum physical activity. There is a need to provide this knowledge and develop practical skills to enable them to work as part of a wider network of professionals (e.g. doctors, midwives, physiotherapists etc.) delivering the same motivational messages and providing coaching services to pregnant and postpartum women.

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Sport Education for Sustainable Development: World classification of Exercise and Sports Sciences versus the European one passing through the EU member countries ones

Raiola G.

Research Center Physical Education and Exercise, Pegaso University, Naples, Italy

Physical activity and sport sciences are rapidly expanding with wide-ranging implications in both academic and professional fields. However, despite its growing recognition for the impact on public health, disease prevention, and the development of physical and sports skills, they have yet to gain full recognition in European union scientific body. One of

the main obstacles to such recognition is the lack of the subpanel “Sport” within the European Research Council Executive Agency’s (ERCEA) international classification systems of scientific knowledge. Classifications can vary significantly worldwide and across Europe, thus affecting the perception and recognition of different areas of study. The European Research Council (ERC) model peculiar to the continent’s scientific research steering body, ERCEA, represents a distinctive approach designed to promote scientific excellence and foster innovation. It is the European research funder that annually updates the scientific knowledge classification of the 27 countries of the European Union (EU) into a single scheme for the purpose of evaluating European union (EU)-funded research projects and is therefore based on a common scheme for all EU countries, consisting of areas, panels and subpanels. There are 403 subpanels and they are grouped into 28 panels which, in turn, form the 3 areas: Physical sciences and engineering, Life sciences and Social sciences and humanities (ERC, 2024). The 403 subpanels lack the exercise and sports sciences, which, therefore, cannot draw on EU research funding. Yet, the taxonomy used by the global scientific classification, adopted by major international research databases such as Scopus, Web of Science, Medline and PubMed according to a model based on the reconnaissance of the entire world scientific output (Rivest et al., 2021) predicts the presence of exercise and sports sciences. The model also adopted by Science-Metrix, which evaluates overall world research for its impact on the scientific

community through citations, represents the science in a hierarchical model, that is methodologically the same as the ERCEA, made by 5 domains, 20 fields and 174 subfields. The latter (subfields) are nothing more than the subpanels of the ERC scheme, which, although more than twice as large as the subfields, do not include the exercise and sports sciences. This situation hampers the recognition of Sport Sciences at the European level by fostering adaptive behaviors of its researchers who use other subpanels to access European research funding. In particular, this exclusion from major European research funding programs limits opportunities for scientific and professional development, also undermining the possibility of systemic and structured growth of European exercise and sport sciences. Added to this problem is that of national scientific knowledge classifications as it is in Italy where scientific knowledge is organized into 14 disciplinary areas defined by the National University Council (CUN areas), 190 Scientific Disciplinary Groups (SDGs) and 366 Scientific Disciplinary Sectors (ASDs). The aim is to provide a detailed analysis of the issues related to the non-inclusion of exercise and sport sciences in European scientific taxonomies, as well as to highlight the scientific and professional consequences it may have on some EU countries that have classifications of knowledge other than subpanels and subfields, as is the Italy case, where there are Academic Scientific Discipline and its Groups. A comparative analysis of the 3 different models of scientific knowledge classification was then conducted.

ERC Panel Structure	Science-Metrix classification	
<ul style="list-style-type: none"> • 3 Domains • 28 Panels • 403 Subpanels 	<ul style="list-style-type: none"> • 5 Domains • 20 Fields • 174 Subfields 	<ul style="list-style-type: none"> • 14 Aree disciplinari del Consiglio Universitario Nazionale (CUN) • 366 Settoriscientificodisciplinari • 190 Gruppiscientificodisciplinari
Subpanels contiguous to exercise and sports science: <ul style="list-style-type: none"> - SH3_11 Social aspects of teaching and learning, curriculum studies, education and educational policies - LS4_3 Physiology of ageing - LS4_7 Nutrition and exercise physiology - LS4_9 Metabolism and metabolic disorders, including diabetes and obesity - LS4_10 The cardiovascular system and cardiovascular diseases 	Subfields contiguous to exercise and sports science: <ul style="list-style-type: none"> - Sport Sciences 	Group of Academic scientific discipline: Exercise and sports science (code 06/M-EDF/01) Academic scientific discipline afferents: <ul style="list-style-type: none"> • Physical training and Methodology (code M-EDF/01) • Sport sciences and methodology (code M-EDF/02)

Of analysis, an initial scientific misalignment between the world scientific community and the ERCEA emerges and a probable cause of this misalignment caused by those national classifications, such as Italy, that relate poorly to the international scenario by adoption of models divorced from the world context that, instead, has keywords as its basis and, because of this diversity, makes alignment almost impossible. In conclusion, such a misaligned system between the international scientific community and the European one, due to those European states, such as Italy, affects that scientific knowledge such as Exercise and sport sciences is not provided for among the subpanels. What is needed is a European scientific effort, which can also come from those countries that care deeply about Exercise and sports sciences. EU candidate countries, such as the Balkan countries, can, through cultural and scientific networks (ENSE), be the proponents of full recognition of Sport by the ERCEA.

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Active Mathematics– Learning Mathematics Through Physical Activity

Ramos L.^{1,2,3}; Simões V.^{1,2,3}; Vieira I.^{1,2,4,5}. Franco S.^{1,2,3}

¹Santarém Polytechnic University – Sport Science School of Rio Maior (ESDRM-IPSantarém), Rio Maior, Portugal

²Sport Physical activity and health Research & INnovationcenTer (SPRINT), Melgaço, Portugal

³Life Quality Research Investigation Center (CIEQV),

Rio Maior, Portugal

⁴Department of Sports Sciences – University of Beira Interior, Covilhã, Portugal

⁵Research Center in Sports Sciences, Health Sciences and Human Development (CIDESD), Portugal

The World Health Organization (WHO) published, in 2020, the “Guidelines for Physical Activity and Sedentary Behaviour” (WHO, 2019, 2020) and recommends guidelines for youth, beyond the adult guidelines. The “Global Status Report on Physical Activity 2022” mentions that one in four adults and more than 80% of adolescents do not meet WHO’s recommendations about physical activity levels (WHO, 2022). Considering this fact, and also that overweight and obesity were increasing in youth populations, it’s crucial to improve healthy habits among these populations. The benefits of physical activity have been documented in several scientific studies. Integrating physical activity programs into the daily school routines is essential and a very useful strategy for weight management and enhances overall health and academic performance (Latino & Tafuri, 2023). Beyond that, the COVID-19 pandemic brings some difficulties concerning the learning process in schools, especially in subjects that already are, before that, more challenging for children, like mathematics.

Considering the previous topics, the project “Matemática Ativa”, supported by the Portuguese Institute of Sport and Youth, in 2022, aims to implement active mathematics sessions through physical activity. This pilot project consists of 12 sessions developed with a class of students from the 2nd year of elementary school. The class were split into two groups, namely the experimental group and the control group. Once a week, the control group stay in the room learning maths with a teacher, in the traditional expository way, and the experimental group goes outside and plays active games with the same mathematics content. Both groups made an initial mathematics diagnostic test and a final test. Also, both groups use a pedometer, in all the days of intervention, to achieve the physical activity level. The results of this pilot study show a significant difference in the level of physical activity in both groups, finding that the experimental group made more steps. Concerning mathematics learning, there were no differences between groups in the final test.

The results show that learning mathematics content through physical activity is possible and increases daily physical activity levels (Ramos et al., 2024).

One of the outputs of the “MatematicAtiva” project was the book “MatematicAtiva”, which proposes 60 active games and activities for all mathematics contents of the 2nd year of elementary school. This book allows teachers to bring physical activity into their classes, improving multidisciplinary and also the student’s motivation, which is very important to the learning process. The games and activities proposed are very easy to implement and some games can also be done inside the school room, with few materials and space. The games have appealing illustrations that often, by themselves, understand the game’s objective and how to play it.

The next goal of this project is to develop an intervention with more students, from several years of elementary school, and also to do more sessions and see if the results are also positive and prove that learning mathematics through physical activity is possible.

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Healthy Lifestyle Network Europe project

van Heel J.¹, Pajaujiene S.², Maciukas A.³, Kempenaers F.⁴, Vandenabeele E.⁴, Rýžková E.⁵, Luptakova G.⁵, Antala B.⁵, Labudová J.⁵, Kaplánová A.⁵, Franco S.⁶, Simões V.⁶, Chicau-Borrego C.⁶, Valcarce-Torrente M.⁷, García Ortega S.⁷, Harrison B.⁸, Korovljev D.⁸, Ostojić S.M.⁸, Moustakas L.⁹, Španjol I.⁹

¹New Health Foundation, Weert, Netherlands;

²Lithuanian Sports University, Kaunas, Lithuania;

³Lithuanian Association of Health and Fitness Clubs, Kaunas, Lithuania; ⁴Belgium fitness organization, Brussels, Belgium; ⁵Faculty of Physical Education and Sports – Comenius University, Bratislava, Slovakia;

⁶Sport Science School of Rio Maior – Santarém Polytechnic Institute, Rio Maior, Portugal; ⁷European Association Sport, Exercise and Health, Madrid, Spain; ⁸Center for Health, Exercise and Sport Sciences, Belgrade, Serbia; ⁹European Network of Sport Education, Vienna, Austria

The Healthy Lifestyle Network Europe (HLNE) project aims to improve the quality of life and health of European citizens, particularly those facing existing health challenges. By promoting inclusive health practices, HLNE addresses significant concerns such as obesity, physical inactivity, and escalating healthcare costs, presenting substantial economic and societal benefits. Recognizing that poor dietary and exercise habits are primary contributors to diabetes, overweight, and obesity, HLNE emphasizes the urgent need to empower nearly 50% of the EU population, many of whom lack essential health literacy, with the knowledge and skills to make informed lifestyle choices.

HLNE’s mission centers on establishing a robust network of trained Healthy Lifestyle Promoters (HLPs) and Coaches, equipping individuals and families with clear, accessible information and tailored support. Funded by ERASMUS Sport (No. 101133533) with €400,000, HLNE is a three-year initiative (2023-2026) involving eight full partners and building on the foundations laid by the previous European project, New Health 2022 (NH2022; 2020-2022). The project aims to train 1,000 HLPs,

each armed with comprehensive digital tools and resources to engage 50 individuals facing health issues within their communities. This initiative has the potential to reach over 50,000 people, fostering health awareness and sustainable lifestyle changes across Europe. Additionally, the introduction of a “Healthy Lifestyle Coach” course creates new opportunities for volunteers and professionals, thereby strengthening the network of health advocates committed to addressing lifestyle-related health risks and promoting a healthier Europe.

HLNE’s digital resources, including the New Health website, a lifestyle app, and a series of user-friendly videos, empower individuals and professionals to evaluate and enhance their health habits. Building on EuropeActive’s EQF Level 2 standards, HLNE trains HLPs through a structured blended learning course that encompasses exercise, nutrition, and mental well-being. The project also introduces Healthy Lifestyle Coaches (HLCs) to provide targeted support for individuals experiencing health disparities. Pilot programs across partner countries expand HLNE’s impact by engaging HLPs to connect with their communities, aiming to reach over 50,000 individuals.

In summary, the HLNE project is poised to significantly enhance public health across Europe by improving health literacy, encouraging active lifestyles, and mitigating health disparities. Through its comprehensive training programs, digital tools, and community outreach initiatives, HLNE equips individuals and professionals with essential resources to tackle key health challenges, including obesity and related chronic diseases. By establishing the European Healthy Lifestyle Education Institute, HLNE ensures the sustainability of these initiatives, fostering a culture of wellness and preventive health for future generations. This project not only benefits individual participants but also promotes broader economic and social well-being, contributing to the development of a healthier, more informed society.

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Impact of Compulsory Physical Education Teaching in Primary Schools: A Comparative Analysis Among Different Stakeholders

Trotta N., Sannicandro I.

Department of Clinical and Experimental Medicine,
University of Foggia, Foggia, Italy

In recent years, in Italy, the sports education field has undergone significant changes, primarily due to the introduction of important legislative innovations, including the establishment of specialized teachers with a master’s degree in exercise and sports sciences within the teaching staff of Italian primary schools.

This development aligns with the recommendations of EURYDICE, a network aimed to describe the structure of European education systems, which advocates for strengthening physical skills in school curricula across Europe. It highlights the importance of trained specialists to ensure quality physical education from the early school years.

The compulsory teaching of physical education in primary schools by specialist teachers was introduced in Italy to achieve the objectives of the Next Generation EU initiative, a European financial instrument aimed at supporting member countries with investments following the losses incurred during the COVID-19 health crisis.

The objective of this study was to compare the perceptions of different kind of stakeholders regarding the compulsory teaching of physical education by specialized teachers and the training required to provide quality physical education.

The research method adopted represents an innovative approach to assess the impact of this new legislative measure on different kind of stakeholders involved, adopting a qualitative-quantitative approach to capture perceptions and opinions, highlighting useful elements that may assist managing entities in implementing this reform.

A cross-sectional study was conducted, involving 338 participants, divided into four groups: 48 sports tutors, 32 school principals, 153 generalist teachers, and 105 students in primary education (SPE) programs. Perceptions and opinions were collected through

common questions drawn from questionnaires, specifically designed based on previous studies. This approach provides a clear understanding of the knowledges and the awareness of the professionals involved over time in teaching physical education in primary schools.

Chi-square analysis was conducted to verify the presence of significant differences in perceptions among the different stakeholder groups, while Cramer's V was used to measure the strength of the association.

The results showed significant differences in perceptions among different kind of stakeholders: the majority of generalist teachers believed the time dedicated to physical activity was sufficient, in contrast to school principals, sports tutors, and SPE students. Moreover, generalist teachers and SPE students perceived their training as fairly adequate to teach PE, despite to school principals and sports tutors perceptions.

The results highlighted that many generalist teachers, and to some extent SPE students (future generalist teachers), underestimated the content levels of sports sciences and physical education, as well as the training required to teach it effectively, unlike school principals and sports tutors perceptions. Specifically, many generalist teachers and SPE students considered the training of generalist teachers fairly adequate to teach physical education, compared to principals and sports tutors ($p=0.00$). Principals and sports tutors, on the other hand, considered the training of specialists in primary schools highly adequate, unlike some generalist teachers and SPE students ($p=0.00$). A high percentage of generalist teachers and SPE students believed that additional courses were "fairly" sufficient to improve the training of generalist teachers, in contrast to sports tutors and principals ($p=0.00$).

Overall, the majority of generalist teachers believed that the time children spent moving during the school day was adequate, in contrast to school principals, sports tutors, and SPE students ($p=0.00$).

The differences in perceptions and opinions highlighted the need to review and improve the training of generalist teachers, as well as to consider a broader inclusion of specialist teachers to enhance physical education in primary schools, promoting closer and more collaborative dialogue among the various stakeholders within schools. The relevance of this research lies in its innovative methods and

content, which could be promoted according to the perspectives of the European Network of Sport Education (ENSE) in the Mediterranean and Balkan regions by extending the process of collecting and comparing the perceptions and opinions of different stakeholders involved in educational activities. The transnational projection of this research project contributes to the process of European integration, even for sports education in schools, with reference to curricular physical education. Expanding the research scope to those territorial contexts overcomes the bureaucratic hurdle of the EU's limitations to its 27 member countries. Physical education plays a significant role in the development of educational exercise and sports sciences and can contribute as a driving force for EU integration, regardless of bureaucratic constraints.

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Perceptions and Experiences of Youth Footballers Registered in Nurseries (13-15)

van Vuuren Cassar G.¹, Cassar J.²

¹Canterbury Christ Church University, Canterbury, United Kingdom

²Stella Maris College, Malta

Football nurseries for youths have historically served to expand grassroots football to develop talent. Research on youth footballers has focused predominantly on elite youth football (Reeves et al, 2009; Sieghartsleitner et al, 2019) and a study explored youth development in football nurseries in Malta (Cassar and Gauci 2015). Notwithstanding these contributions, it is timely that the experience of youth football and talented player development is explored further by capturing the voice of young footballers in nurseries. Building on recent research on the Developmental Model of Sport Participation (Côté and Vierimaa 2015) and the Long-Term Athlete Development model (Balyi et al. 2013),

this study explored the perceptions and experiences of coaching sessions of youth (13-15) registered in football nurseries in Malta.

The key research questions were: What are the experiences of youth footballers during the sessions? What are the perceptions and experiences of youth footballers regarding their relationships with the coach and peers? Mills et al. (2012) identified a series of factors perceived to either positively or negatively influence youth football player development, while Flores-Aguilar et al. (2021) emphasised the impact of peer relations. The study will explore how youth footballers develop during their coaching sessions in relation to awareness of themselves and awareness of others; resilience to cope with feedback, and setbacks; and sport-specific attributes such as perceptions of coaching sessions and competitiveness.

At the time of the study, twelve from fourteen top division senior football league clubs in Malta had well-organised and resourced Youth Football Club Nurseries (YFCN) for boys; two had provision for girls (Youth Football Association 2015). A stratified random sample of six out of the fourteen top division football clubs in Malta was selected as a fair representation of the population. An in-depth semi-structured focus-groups was held at each of the six YFCN. Forty-two youth footballers from six nurseries volunteered to participate. All were boys. Focus groups offered 'deeper' understanding of social phenomena through dynamic group in-depth discussion conversations and deliberation of thoughts, beliefs, and perspectives. Thematic analysis (Braun et al, 2019) was used to analyse the data.

The coach, sessions and environment emerged as key themes. Youth footballers experienced and affirmed that they wanted coaches that are fair, remain calm, are caring, do not shout and encourages all participants. The coaching style impacted resilience, motivation, mental-wellbeing, and decisions for dropouts. Most youth footballers preferred to play and have fun, rather than win every game and not play. All participants shared the belief that success and the development of game strategy development were important, however, a focus on winning was perceived important to some of the youth footballers. Peer relationships were positive, but subgroups and micro aggressions contributed to self-esteem issues. This study recommends a similar study for girls' youth football. When individual youth footballers are bullied, or feel excluded by their peers, coaches have a role to

play to prevent and eradicate adverse experiences in youth football. Training for coaches to manage peer and coach relationship is desirable as part of coaches' continuous development. Also, youth football nursery programmes should signpost phases of transitions of continued participation at recreational and high levels of performance for youth footballers.

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The Impact of Screen-Based Technology on Well-Being of Primary School Children During Last 10 Years - A Literature Summary

Peqini V.¹, Peqini E.²

¹Department of Mathematics and Informatics, Faculty of Natural Sciences, “LuigjGurakuqi” University of Shkodra, Albania

²Department of Physical Education and Sports, Faculty of Education Sciences, “LuigjGurakuqi” University of Shkodra, Albania

The purpose of this review is to find out the impact other researchers have given to the study of screen-based technology usage on well-being of children in primary school and their future dual-career. More mobility activities should be used, less time on screen-based technology so to increase the development, well-being and academic progress of children. For this literature review are used databases as: PubMed, Google Scholar, Web of Science and Science Direct with the help of keywords which include phrases “the impact of screen-based technology”, “6-10 years old children well-being”, “the effects during last 10 years”, “positive and negative effects on children’s wellness”, “impact around the world” and other combinations. Defining the age of 6-10 years old generated 116,000 items. The restriction on articles published in the last 10 years generated 17,800 articles. The increased use of keywords limited the search into 310 articles of which 26 were selected as the most relevant articles to our topic. This study of literature aims to illustrate that better wellbeing support for children can be achieved through parental influences like reducing their own screen time or their education level for a better argumentation of what is healthy. Another negative impact of screen based technology on their future dual-career is the lack of physical activity or sports that brings sedentary life and poor sleep quality, including medical problems, diseases, disorders and negative feelings. On the contrary, screen based technology has its positive impacts if it has its right time-used and with necessary applications based on diets, nutrition, healthy life, measurements of correct physical activity exercises for the whole body so to prevent well-being.

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Life 4 Fitness Professionals – Musculoskeletal Injuries

Vieira I.^{1,2,3,4}; Esteves D.^{2,4}; Ramos L.^{1,3,5}; Simões V.^{1,3,5};
Franco S.^{1,3,5}

¹Santarém Polytechnic University – Sport Science School of Rio Maior (IPSantarém-ESDRM), Rio Maior, Portugal

²Department of Sports Sciences – University of Beira Interior (UBI), Covilhã, Portugal

³Sport Physical activity and health Research & INovationcenter (SPRINT), Melgaço, Portugal

⁴Research Center in Sports Sciences, Health Sciences and Human Development (CIDESD), Portugal

⁵Life Quality Research Investigation Center (CIEQV), Rio Maior

Fitness Professionals (FP) represent a crucial part of the fitness industry and perform a substantial role in the quality of the services provided and clients retention (Glaveli et al., 2023). In Portugal, from 2010 to 2021, a total of 33,359 FP licenses have been issued, however 34% (11,413) were no longer valid in 2021 (IPDJ, 2021), suggesting that a third of the FP have dropout from the profession. These numbers represent a concern to the fitness industry in Portugal. FP may be exposed to physically demanding working conditions, as evidenced by factors such as the actual number of working hours, the additional unpaid preparation time added to their paid schedule (Ramos et al., 2021), and the volume of practical exercise, which may not always allow for sufficient recovery (Bratland-Sanda et al., 2015). It has also been suggested that group fitness classes FP often work excessive hours to earn a reasonable income, potentially pushing beyond their tolerance limits for mechanical stress (Francis et al., 1985).

Based on this prior evidence, the aim of the present study was to characterize work-related musculoskeletal injuries among FP in Portugal.

A total of 466 FP responded to an online survey, and 424 valid responses were analyzed.

The sample comprised 58.5% Physical Exercise Technician and 41.5% Technical Director, of which 80.4% were working as FP. Average age was 30.39 ± 7.82 years old, and professional experience was 6.81 ± 6.69 years. 50.6% of the sample were males. The average number of group fitness classes delivered

per week was 7.32 ± 7.16 , and maximal number per day was 2.92 ± 2.34 . The average number of paid working hours per week was 39.60 ± 19.57 .

The majority (53.8%) of participants reported no musculoskeletal injuries caused, aggravated, and/or reactivated by their work as FP. However, 14.8% had experienced one injury, 14.4% had two injuries, 9.4% had three injuries, and 7.8% had between four and eleven injuries. In total, 472 musculoskeletal injuries were reported, yielding an average of 1.11 ± 1.61 (M \pm SD) injuries per FP.

In terms of injury type, the most commonly reported musculoskeletal injuries were related to “joints and ligaments” (37.1%), followed by “muscles and tendons” (33.9%) and “bone fractures and stresses” (6.1%). Additionally, 12.5% of the injuries could not be classified by the FP. The most frequently reported anatomical locations were the “knee” (21.0%), “shoulder” (14.0%), and “lower back” (12.7%). Of these injuries, 73.1% were diagnosed by a specialist, 17.8% were not, and 8.9% had unsuccessful diagnostic attempts. Furthermore, 50.8% of the reported musculoskeletal injuries were not recurrent. In terms of injury nature, 55.9% were categorized as “overuse” injuries, while 42.8% were “acute.”

FP attributed 57.0% of the injuries to their work, with 56.6% reporting reactivation of prior injuries, and 74.6% reporting aggravation of existing conditions. The findings of this study indicate a lower prevalence of musculoskeletal injuries caused, reactivated, and/or aggravated by work compared to previous research, which often reports rates exceeding 75% (Shinde&Sahasrabuddhe, 2021). This discrepancy could be due to differences in the target population, as this study included all FP with a valid professional title, regardless of their specific functions or current employment status in the field.

Despite the lower reported injury rates, the results are concerning. The long-term consequences for FP, and the fitness industry as a whole, may include reduced quality of life and increased dropout rates from the profession. These findings underscore the urgent need to understand the full implications of these injuries and to develop injury prevention programs or guidelines to ensure the safety and longevity of FP careers within the fitness sector.

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Aquatic Literacy for All Children: Future Possibilities to Engage the Broader Society and Implications for Sport Education

De Martelaer K.¹, D'Hondt E.¹, Van Droogenbroeck L.¹, ALFAC consortium

¹Vrije Universiteit Brussel, Brussel, Belgium

Aquatic Literacy for All Children (ALFAC) is a running ERASMUS+ project with seven countries aiming to (a) develop a test battery for assessing aquatic literacy, (b) comparing findings between countries and (c) exchanging pedagogical tools to improve swimming education programs.

In this presentation an overview will be given of the core dimensions of aquatic literacy. Starting from the definition of physical literacy being the

“integration of physical, psychological, social, and cognitive capabilities that help us live active, healthy, and fulfilling lifestyles”, the translation into aquatic literacy (AL) is made. In the ALFAC project, three core dimensions are integrated to analyze, compare, and stimulate the concept of AL among elementary school children: (a) aquatic skills (both actual and perceived), (b) psycho-social features (autonomous motivation, enjoyment & engagement, confidence) and (c) a knowledge aspect (risk perception).

The content and organizational aspects of the ALFAC test battery are crucial to understand the focus of AL education. In the didactical approach, the alignment of AL learning outcomes through tasks and assessment with isolated and integrated real world activities is illustrated.

The presentation provides an overview of different contributing factors for the implementation of decent AL education in several settings (school, sports club, private settings) taking into account the three dimensions of AL. Also, the role of the family, e.g. parental knowledge, attitude and practice will be discussed. More insight into barriers and enablers at micro, meso and macro level can help to increase the engagement of the broader society in aquatic education.

Finally, the implementation of a holistic water sport education in the formal training of swimming teachers and aquatic recreation instructors will be discussed.

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<https://www.alfac.eu>

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Life skills in Movement and Sport Sciences: Actual and Future Approaches in Higher Education

De Martelaer K., Derom I., Van der Steen L., Van Roey A., Van Onsem B.

Vrije Universiteit Brussel, Brussel, Belgium

The 21st century skills or life skills have been widely discussed as cross-disciplinary competences. Researchers have highlighted their importance

as they have a positive effect on young people's education, health, family life and employment in a rapidly changing world. Improving the life skills needs transformation of teaching different levels in educational institutions and in higher education in particular. Therefore, the objective of this study was to develop and validate an instrument that evaluates the level of life skills among first year students at the university.

A modified version of a validated survey instrument for 21st century skills for high school students was used (Kelley et al., 2019). This survey is based on the P21 framework, in which 21st century skills are divided into three categories: Life & Career skills, Learning & Innovation skills and Information, Media & Technology skills (Partnership for 21st Century Learnings, 2015). To test the instrument, a pilot study was performed in 2022, where 94 university students (aged 19-20 years) filled in the modified instrument. Based on their feedback a first wave of 217 students (Physical Education & Movement Sciences & Physiotherapy, aged 18-20 years) filled in the revised instrument. One of the changes was the rating score, from a five point Likert scale to a Visual Analog scale (VAS), from 'never' (1) to 'always' (10) to avoid ceiling effect. In a second wave of data collection (2023), 250 students Physical Education & Movement Sciences and Physiotherapy and 113 students Psychology provided their cooperation. This gives a total of 580 respondents of first year students at the Vrije Universiteit. After removing the missing data, a sample of 551 individuals remained for the factor analysis. SPSS was used for descriptive statistics and the exploratory factor analysis. A Varimax rotation was performed for the underlying structure of the data base. To determine whether the variables were suitable for a factor analysis, the Kaiser-Meyer-Olkin value (KMO) was used.

Originally, the questionnaire consisted of 85 items, clustered in 13 factors. The KMO value for the entire matrix was 0.919. The factor analysis with nine factors resulted in 42.84% of the variance. A total of 35 items were removed for the following reasons: (a) items loading below 0.4, (b) insufficient items in the predicted factor, (c) no correlation between items on the predicted factor. The questionnaire was reduced to 50 items clustered in nine factors (with the number of items in brackets followed by the Cronbach's Alpha): collaboration (12 items, $\alpha = 0.87$), initiative-taking and self-management (9 items, $\alpha = 0.84$), creativity

and innovation (6 items, $\alpha = 0.85$), critical thinking and problem-solving (4 items, $\alpha = 0.72$), information, media literacy & technological (5 items, $\alpha = 0.72$), communication (4 items, $\alpha = 0.76$), flexibility (4 items, $\alpha = 0.72$), adaptability (3 items, $\alpha = 0.62$) and social and cross-cultural skills (3 items, $\alpha = 0.63$). The mean score on the different items was 6,9 with the lowest score (5.2) on the items "I can manage my time efficiently"; "multitasking" (5.6) and "I can accurately assess what impression I have to others" (5.6).

Our instrument can be used in the future to measure life skills of higher education students through longitudinal research, comparative research, survey research or pre-test post-test research. Academic staff needs to understand and apply life skills in the lectures, workshops, internship etc. to develop and support students in their growth process on a structured way. To improve curricula that guide and stimulate a process-oriented (self)evaluation on a regular basis, more formal focus on life skills, exploring and evaluating different pedagogies is needed.

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Sports Diplomacy: A Strategic Tool for the European Union's Soft Power and Cultural Identity

¹De Waele J., ¹Abey F.

Department of Political Science, Université Libre de Bruxelles (ULB), Brussels, Belgium

Research that aims to study the way in which sport is currently used as a tool for integration in the European Union. The research will be organized into

3 distinct parts: the first focusing on the potential of sport as a creator of a common identity and the deficit of such an identity within the EU. The second will look at how sports diplomacy is currently used in the EU and whether this is the right way to develop a common identity. A third which will bring new ideas and critically analyze how sport is used in the EU, offering advice on how sport and diplomacy can foster integration in the EU.

Temporary plan:

1. The lack of a common European identity - The EU has a special place as an economic giant but is struggling to develop a common European identity. - The European identity crisis: more and more countries are seeing the arrival of parties proposing to leave the EU + the BREXIT case.
2. Sport as a tool for building a common culture and identity - Analyze how sports diplomacy can influence international relations, involving both state and non-state actors. - Explain how sport can help to strengthen a common identity in Europe despite the lack of a pre-existing common culture and language.
3. The EU's emerging role in sports diplomacy -Discuss the evolution of the EU's competence in sport, which only began with the Lisbon Treaty in 2009, and how sport is gaining importance as a soft power tool. - Highlight the main steps taken by the EU since 2016 to develop sports diplomacy, including the role of the High Level Group on Sports Diplomacy.
4. Existing sporting competitions in the EU and how they create a common European identity - An analysis of the competition that exists between countries within the EU and how the competition between states or clubs from states plays a sometimes positive, sometimes negative role in the development of a common European identity.
5. Towards a hybrid system of sports diplomacy - Suggest that the EU adopt a hybrid model of sports diplomacy that combines soft and smart power to reflect the EU's unique structure, norms and values. - Suggest additional areas of research, such as bridging disciplinary divides and focusing on the practical applications of sports diplomacy in various regions.

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Enhancing Sustainable Adventure Tourism in Albania. Integrating Infrastructure Development, Sport Education, and Economic Growth

Kasmi A., Muçalliu A., Orhani H.

Department of Projects and Technology, Institute of Scientific Research in Sports, Sport University of Tirana, Tirana, Albania

Adventure tourism, involving activities such as hiking, canoeing, and immersing in culture, is now acknowledged as a key contributor to both economic development and environmental conservation. With the growing attraction of Albania's diverse natural landscape and rich history to foreign visitors, it is essential to address existing challenges and establish a solid framework for sustainable tourism practices. This research investigates how enhancing infrastructure development and athletic training can enhance sustainable adventure tourism in Albania. Initial assessments suggest that the current infrastructure for adventure tourism in Albania is lacking, with 47.4% of stakeholders deeming it inadequate. Identified difficulties consist of restricted access to remote

adventure destinations, inadequate trail markers for hiking, and insufficient amenities to cater to tourist requirements. Additionally, lack of accommodation during busy tourist seasons forces 73% of tourists to look for other places to stay, which has a negative impact on their overall experience and hinders the potential economic advantages for nearby communities. The introduction of sports training is quantitatively evaluated in this study to promote sustainable tourism practices among locals and tourists. Workshops and training courses offered by Sports Education aim to raise public awareness of environmental protection and responsible tourism. Information was collected from a wide range of participants, including tourists, tour operators, and guides, using a standardized questionnaire, through a combination of qualitative and quantitative methods. The results indicate minimal awareness of sustainable practices and a significant need for improved education and training expressed by many stakeholders.

According to recent economic analysis, local communities can see modest economic gains from infrastructure improvements, with approximately 63.2% of respondents observing positive impacts on their businesses. These enhancements encompass better trail upkeep and access roads. Additionally, 73.7% of stakeholders anticipate an increase in the desire for adventure tourism activities, fueled by a growing focus on sustainable practices and the allure of eco-friendly experiences. The study emphasizes the importance of recognizing the role of sports education in advancing a sustainable culture. Educational efforts can raise awareness and encourage environmentally conscious behavior among residents and tourists. Integrating sustainability education into tourism programs can motivate communities to responsibly manage their natural resources, thus preserving the environmental integrity of the area and ensuring the continued presence of adventure tourism.

This research article suggests that Albania has great potential for growth in adventure tourism, but it is crucial to align infrastructure development with sustainability principles. Suggestions for improving sustainable adventure tourism include investing in environmentally friendly infrastructure and implementing educational programs for sports targeting both locals and tourists by promoting collaboration among stakeholders to ensure fair economic benefits. Albania can position itself as a leading destination

for sustainable adventure tourism by capitalizing on its natural and cultural resources. This approach supports broader sustainable development objectives and provides economic growth, cultural exchange, and environmental conservation opportunities to local communities. Ultimately, the findings emphasize the importance of a comprehensive approach that combines infrastructure enhancements with sports education to promote sustainable adventure tourism in Albania.

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Profile of Boxing Coaches in Italy for Female Boxers: An Analysis of Expertise and Perceived Barriers

Martusciello F.^{1,2}, Perazzetti A.¹, Kaçurri A.³, Consolati M.⁴, Tessitore A.¹

¹Department of Movement, Human and Health Sciences, University of Rome "Forlitalico", Rome, Italy

²National PhD Programme in Kinesiology and Sport Sciences, University of Verona, Verona, Italy

³ Sports Research Institute, Sports University of Tirana, Tirana, Albania

⁴ Director of the Italian Boxing National School, Italian Boxing Federation (FPI), Italy

The relationship between a coach and his/her athletes significantly influences their performance, motivation, and overall success. When athletes perceive support, comprehension, and appreciation from their coach, they are more likely to pursue their full potential. A constructive coach-athlete relationship can foster a productive training environment that encourages growth and development both on and off the field, becoming a fundamental aspect of any athlete's or coach's professional life. Nonetheless, although male and female athletes share many similarities in their coaching needs and expectations, evidence indicates that the relational competence of coaches is paramount to the coaching requirements of women athletes (Norman, 2015). For this reason, it is crucial to comprehend the extent to which gender affects it (Norman, 2016).

Therefore, this study aims to analyse the profile and expertise of boxing coaches in Italy, focusing on perceived barriers in coaching female boxers and identifying challenges and areas for improvement in their training.

A questionnaire, in Italian language, was built in digital format through the Google Docs platform, and the link was sent to the coaches by e-mail.

The questionnaire was composed by three key areas: 1) general information (i.e., age, sex and level of education); 2) professional background (i.e., boxing certification, boxing coaching experience and female boxing experience); 3) Barriers and difficulty (i.e., comparison male vs female boxing; facilities' quality; environmental support; competition scheduling; support to dual career) and knowledge of psycho-physiological characteristics of female boxers.

A total of seventy-five Italian boxing coaches, divided in 63 male coaches (age: 47.1 ± 10.6 ; boxing coaching experience: 14.8 ± 10 yrs; and yrs of female experience: \pm) and 12 female coaches (age: 47.1 ± 10.6 , yrs of boxing coaching experience: 14.8 ± 10 and yrs of female experience: \pm).

Nevertheless the 96% ($n=72$) of the interviewed coaches have carried out their coaching activity without any interruptions, 66.7% ($n=50$) of them indicated that being a boxing coach is not their main job activity. All participants confirmed that they hold a certification from the Italian Boxing Federation. Regarding their experience with female boxers, the 98.7% ($n=74$) answered they have trained, at least for one season, female boxers during their professional career. In particular, 9 coaches (12.2%) declared they have trained all categories during their career (included 'professional boxers'). Sixty-seven coaches (89.3%) have worked with athletes competing at least one Amateur Olympic Boxing (AOB). Finally, 44.6% ($n=33$) coaches mentioned they had trained female boxers who competed in International competition (included 'Olympics') and 55.4% ($n=41$) coaches mentioned have trained female boxers who competed in National competition.

Regarding perceived barriers and their knowledge of the psycho-physiological characteristics of female boxers, 86.6% of the coaches (73.3% of male participants and 83.3% of female participants) disagreed or strongly disagreed with the statement 'boxing is NOT a sport suitable for women,' while the rest 13.3% (8 male coaches and 2 female coaches) agreed or stayed neutral. Specifically, only

68% ($n=51$) coaches said that there are not many differences between male and female boxing, and 5.3% said they were unsure.

The 49.3% ($n=37$) of the coaches thought that sports facilities were suitable or very suitable for hosting female boxers, and 62.6% ($n=47$) said the emotional and relational environment provided a significant support to female boxers. On the other hand, 80% ($n=60$) of the coaches felt that the education system's support for female boxers regarding their student-athlete careers was not adequate or only somewhat adequate. The 65.3% ($n=49$) of the coaches rated the scheduling of activities organized by clubs, committees, or the federation as neutral or adequate, 40% ($n=30$) of the coaches believed that their knowledge of the psycho-physiological characteristics and needs of female boxers was not adequate, somewhat adequate, or neutral, while only 26.7% ($n=20$) said their knowledge was very adequate.

Despite a strong rejection of the participants regarding the idea that boxing is not suitable for women, a notable number of coaches still show uncertainty or neutrality regarding the differences between male and female boxing. Additionally, many coaches feel that the support systems, especially educational frameworks for balancing academic and athletic careers, are inadequate for female boxers. These findings highlight the need for better coach education regarding the unique needs of female boxers, particularly in the areas of psycho-physiological understanding and support for dual careers. Improvements in infrastructure and a more focused approach to scheduling and support mechanisms could also enhance the training and development of female boxers, improving a more inclusive and effective coaching environment.

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Trends in Body Mass Index and Skinfold Measurements Among 15-Year-Old Kosovan Boys and Girls: A Comparative Analysis Between 2010, 2014, and 2023

Tishukaj F., Miftari F., Gjonbalaj M.

Faculty of Physical Education and Sports, University of Prishtina, Prishtina, Republic of Kosovo

This study aims to compare the prevalence of overweight and obesity, as well as Body Mass Index (BMI) and skinfold measurements in 15-year-old boys and girls over a 13-year period, using data collected in 2010, 2014, and 2023.

In 2010, the data showed that 90.3% of boys and 86.8% of girls had a normal BMI, with 8.7% of girls and 10.3% of boys categorized as overweight, and only 2.6% and 1% as obese, respectively. In 2014, 28.2% of boys and 18.9% of girls were categorized as overweight or obese, with corresponding significant increases in BMI, body mass, and skinfold thickness among both genders ($p < 0.001$).

The latest data from 2023 shows an even higher prevalence of obesity among boys (10.9%) compared to girls (5.0%), with 17.1% of girls and 11.3% of boys categorized as overweight. Notably, skinfold measurements were markedly higher in overweight and obese participants, indicating increased body fat accumulation.

Overall, the data demonstrates a steady increase in overweight and obesity rates among adolescents from 2010 to 2023, with boys showing a more pronounced trend. These findings highlight the need for targeted interventions to address childhood obesity and improve physical fitness in both genders.

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“They don’t see my difficulty anymore.” Enablers and barriers to sport coaches’ inclusion: a pilot study

Tessitore A.¹, Trivellini A.¹, Perazzetti A.¹, Pinchera M.¹

¹Department of Movement, Human and Health Sciences, University of Rome “Forlitalico”, Rome, Italy

Nowadays, the disability caused by deafness is “hidden,” invisible to the superficial eye, and difficult to pinpoint in all its aspects. Deafness is not ‘visible’; it is recognizable only at the moment of communication. A global cultural shift is necessary to achieve social inclusion, not only for people with disabilities but also in a broader sense. For people with disabilities the role and attitudes of sports coaches are significant factors that can limit their participation in sports¹. While we often focused on athletes, coaches also face difficulties and barriers. Coaches with disabilities encounter unique challenges, such as inadequate specialized training², societal misconceptions about their abilities, as well as the need to balance personal challenges with coaching responsibilities. However, they could also be inspiring to break down barriers³.

When considering sports coaching, while it may be easier for a deaf coach to work with an entire team of deaf children using the national sign language, would it be possible for him to teach soccer or other sports to hearing children? What challenges might he face in this situation, and how would the children respond to having a deaf coach?

Therefore, the primary aim of this pilot study was to explore the strategies employed by a deaf soccer coach to communicate with hearing children and promote social inclusion through sport. Additionally, it aimed to analyze the challenges he has faced in his role and how the children responded to being coached by a deaf coach. Specifically, the coach was born deaf and only with years of therapy has he learned to speak, presenting some distinctive characteristics in his pronunciation. To this scope, a customized 2-item emoji-based questionnaire (figure 1) has been

submitted to twelve 8-year-old players of a football academy in Rome at the end of their sport season. The choice of emoji-based responses was taken as a quick way to capture emotions and measure satisfaction, which is particularly useful for engaging younger demographics to feel more familiar with the common means of communication used in a ‘digital era’⁷⁴.

Regarding the young players’ perspective, the main findings showed that most of the children (80%) declared they had never met a deaf person in their young life, and most of them (68%) didn’t even believe that a deaf person could be a coach for hearing children. The entire group considered the coach very good for his job. The nonverbal communication factors were considered the most relevant in a relationship between a deaf coach and hearing children. This viewpoint is confirmed by the fact that, although the deaf-born coach had some distinctive characteristics in his pronunciation, only 50% of the children have experienced comprehension problems during trainings throughout the year, as well as 68.7% of them declared that they had no communication difficulties when addressing the coach. Specifically, 68.7% of children considered important that the coach combined always verbal explanation and practical demonstration of the exercise, and 87.5% of them responded that the coach didn’t need to speak louder than other coaches to communicate.

From the coach’s perspective, he believes that initially, it has been important to speak with children to introduce himself and explain his disability, as well as teach them how to communicate effectively with him by speaking slowly and with face direction so he could read their lips from any distance on the playing field. In fact, the main difficulties were related to verbal communication, prompting him to adopt a teaching strategy that minimized verbal explanations and corrections while emphasizing on-field demonstrations. Furthermore, to ensure he captured children’s attention, he provided continuous feedback to them and urged them to communicate to him (e.g., “Mister, I didn’t understand; can you repeat?”). Technical gestures, practical directions, and facial expressions are essential during training, as well as resorting to using redundant messages also accompanied by gestures (e.g., “clear?” “okay?” raising the thumb).

In conclusion, this pilot study demonstrated that the children of the football academy learned valuable lessons about inclusivity and effective communication through their experience with the deaf coach. Their positive perceptions of the coach’s abilities, combined with their openness and enthusiastic feedback, indicate that such inclusive experiences can play a significant role in enhancing social cohesion and fostering mutual understanding among young athletes.

1) Before meeting Mr. Andrea, have you ever known a deaf person?	😊	😐	😞
2) Since you knew Mr. Andrea, you would like to meet more deaf persons?	😊	😐	😞
3) Before meeting Mr Andrea, had you ever thought that a deaf person could be a coach for hearing children?	😊	😐	😞
4) When they introduced you to Mr Andrea, saying he was deaf, were you surprised?	😊	😐	😞
5) For you was easy to understand Mr Andrea's explanations?	😊	😐	😞
6) In your opinion, was it easy for Mr Andrea to explain the exercises to hearing children?	😊	😐	😞
7) If you didn't understand, did you ask a classmate what you had to do to perform the exercise?	😊	😐	😞
8) Do you think a deaf coach can organize funny trainings?	😊	😐	😞
9) In your opinion, does Mr. Andrea organize funny trainings?	😊	😐	😞
10) Is it easy for you to talk to a deaf coach?	😊	😐	😞
11) Did you find useful the gestures the coach made to explain the exercise?	😊	😐	😞
12) Is it important that Mr. Andrea demonstrates the exercise after explaining it?	😊	😐	😞
13) Can Mr. Andrea be a good coach?	😊	😐	😞
14) Do you think there are some of your teammates can communicate better than you with Mr. Andrea?	😊	😐	😞
15) Do you think Mr. Andrea always understands when a child on the team speaks to him?	😊	😐	😞
16) Would you like it if there was a deaf child on the team?	😊	😐	😞
17) When Mr. Andrea explains the exercises, can you understand his words?	😊	😐	😞
18) Have you ever found yourself not understanding an explanation from Mr. Andrea?	😊	😐	😞
19) If you didn't understand, did you ask a classmate what you had to do to perform the exercise?	😊	😐	😞
20) Did you were relaxed when Mr. Andrea corrected you during the exercises?	😊	😐	😞
21) In your opinion, compared to other coaches, does Mr. Andrea have to speak louder to make himself understood?	😊	😐	😞

(figure 1: the 21 items of the customized emoji-based responses questionnaire)

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