



UNIVERSITY OF PÉCS
Faculty of Health Sciences

SPORT- AND HEALTH SCIENCES

notebooks

3rd International Basketball Conference
ABSTRACTS

2023, Volume 7 - issue 1



**Center for Basketball
Methodology and Education**



SPORT- AND HEALTH SCIENCES NOTEBOOKS

3rd International Basketball Conference - Science and Practice of Recovery: From In Game to Post Injury

Publishers:

University of Pécs
Faculty of Health Sciences, Hungary
Center for Basketball Methodology and
Education, Hungary

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2023. Volume 7 - Issue 1.

ISSN 2560-0680 (printed)

ISSN 2560-1210 (online)

DOI 10.15170/SEF.2022.07.01

Print:

University of Pécs, Hungary

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Published by the University of Pécs Faculty of Health Sciences - Hungary, Center for Basketball Methodology and Education

Printed in 2022, Hungary



MESSAGE FROM THE ORGANIZING COMMITTEE

To continue on our extraordinary and dignified path, we successfully organized the 3rd International Basketball Conference. Although the word basketball appears in the name of the international basketball conference, the subject of regeneration and rehabilitation transcends all sports; it has an impact on practically everyone involved in sport, whether they represent a professional or amateur level. The audience could enjoy fifteen fascinating presentations during the two days, along with roundtable discussion and interview sessions. After several of outstanding minds from past conferences, excellent Hungarian and international authorities accepted our invitation. Neven Spahija, a coaching legend in Croatian basketball, can boast an incredible number of accomplishments: he worked for 18 clubs in ten nations, usually as head coach. He is one of the most famous coaches in Europe, one of those exceptional ones who also worked as an assistant coach in the NBA. He also won championships in Croatia, Slovenia, Lithuania, Israel, Spain and Turkey, but in 2010 he also made history as a EuroCup winner. He spent the last season with the Euroleague team of Baskonia.

Continuing the list of the international and Hungarian professionals – without any need for completeness – dr. Francesco Cuzzolin, who served as head fitness coach for the Toronto Raptors; prof. dr. sc. Igor Jukic, who is an expert in performance efficiency improvement; the world-champion Serbian strength and conditioning expert Vladimir Bankovic; the internationally recognized László Jámbor, expert in

performance enhancement, excellent strength and conditioning coach; dr. Zsolt Knoll, orthopedic specialist, sports surgeon; prof. dr. Attila Cziráki, cardiologist, clinic director, medical specialist of the National Basketball Academy; prof. dr. Julio Calleja González, the pre-eminent Spanish fitness authority; Fabio Fossati, mental coach of Virtus Segafredo Bologna; dr. Zoltán Klemencsics, orthopedic specialist have also presented during the conference.

Throughout the two days, doctors, physiotherapists, strength and conditioning coaches, sport experts provided evidence-based interventions, realistic preventive techniques, and injury-reduction strategies. In addition, such exciting topics as travel fatigue and recovery in a congested competition schedule were covered.

Every sports organization can only be one-armed giant without accurate diagnostics and the most advanced rehabilitation background, as their presence is necessary for success and efficiency. I am well aware of the value of appropriate rehabilitation because, in today's competitions, the winner is the one who recovers better!

Dr. László Rátgéber, PhD, habil.

Master coach

Associate Professor at University of Pécs and at Hungarian University of Sports Science, Budapest Professional and Strategic Director of National Basketball Academy in Pécs
Director of the Center for Basketball Methodology and Education



MESSAGE FROM THE PLENARY PRESENTER

Neven Spahija

I Having worked in the NBA for the past three years, I have experienced the importance of having a professional team behind the head coach that can work together for each other to achieve success. In many ways, the American and the European basketball and approach is different, for example in the NBA they have 20-30 people working behind the scenes, so they spend a lot of money on staff, assistant coaches, sports medicine, the whole strength and conditioning team. In America, you have a long term contract with a professional staff, so there is time and opportunity to implement professional programmes.

I think it is important for managers and head coaches to be open, to know their own shortcomings and to dare and want to use the knowledge that the strength coaches or other professionals in the programme have acquired through years of schooling and practice, but not to get lost in the details.

My advice to all players is to trust the medical staff and the strength and conditioning coaches. You can have a really bad injury that nobody can help you with, but if you trust the medical staff, there's a good chance you'll have healthy players in your team.

The programme should also be structured in such a way that the player does not feel good about it, but feels strong, he knows that what he is doing makes sense for his career. That requires confidence and commitment.

My secret is very simple: I have never interfered in the work of the professional staff, I believe in hard work, but you also have to find the balance, motivate and complement each other, so that the system can work successfully.

Finally, I can honestly say that, based on everything I have experienced in sport during my career, I can safely say that this academy and rehabilitation center is second to none in Europe, only Real Madrid's basketball training center can exceed it. It's like what I've seen with the Euroleague teams or the NBA: here you can find everything in one place!

Neven Spahija,

Top International Basketball Coach with NBA Experience

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ABSTRACTS OF PLENARY PRESENTATIONS



INJURIES IN BASKETBALL: EPIDEMIOLOGY, EVIDENCE BASED INTERVENTIONS AND PRACTICAL PREVENTIVE STRATEGIES

PROF. DR. SC. IGOR JUKIĆ, PHD

Faculty of Kinesiology, University of Zagreb

High Performance Sport Center (Croatian Olympic Committee)

The demands of modern top-level basketball can have significant consequences on a player's health. The intensification of the game, psychological pressure, condensed competition calendar, frequent trips, lack of time for training put the players and their professional teams in an increasingly difficult position to preserve their health. This is why ensuring the availability of players for training and competition is one of the fundamental tasks of the sports preparation system.

Epidemiology, risks and mechanisms of sports injuries in basketball help experts to get a realistic picture of the causes and consequences of sports injuries. Based on such findings, high performance specialists create programs and interventions aimed at reducing the number and severity of injuries. Multidisciplinary teams of experts have the task of creating interdisciplinary programs that will be directed towards each player separately, based on his individual characteristics.

One of the most effective ways to protect players and improve their performance is to control of training programs design. An adequate training program implies acute and chronic control of the content, physical and information components of the load and methods of training work.

Also, one of the most important aspects of improving an athlete's health and performance is the athlete's lifestyle. Education, inspiration and provocation of players to take care of their lifestyle in the near and distant future could make a difference in the success of the high performance system in basketball.

INJURY REDUCTION STRATEGIES: OFF AND ON THE COURT APPROACH

DR. FRANCESCO CUZZOLIN, PHD

Faculty of Sports Sciences and Physical Education, University of Udine
Director of Performance EA7 Emporio Armani Milano (Euroleague Basketball)

Injuries are common in professional sports and can have significant consequences for a team's performance in many aspects, and not last, considerable impact on athletes' careers. During the last decades, thanks to the number of research published, the professionalization of the specialists involved in team sports, and the use of new technologies, the attention to reducing injuries have constantly improved.

Many proposals have been put to attention by the sports community but not always with good overall results.

Many coaches and therapists look for a routine or an exercise that could prevent a specific injury but being many different injury risk factors that can interplay to favor an injury, this simplistic approach did not always bring the expected results.

For this reason, professional organizations are more likely to model a strategy involving the whole team organization to focalize on injury reduction, considering as many components as possible that could influence players' health and performance.

After analyzing all the information available and being aware of the potential for intervention, only then the operative aspect is decided.

To simplify, exercises and routines aren't prescribed for their potential to prevent injuries but only if the information collected are leading to increased injury risk. A strategic plan considering training load management, recovery strategies, nutritional advice, activation routines, and specific exercises, should be applied.

Profiling the athlete; assessing and analyzing results; prioritizing, planning, and monitoring interventions; sharing results for a continuously improving approach; are some of the aspects that must be taken under consideration for an effective injury reduction strategy, at any level.

The demands of modern top-level basketball can have significant consequences on a player's health. The intensification of the game, psychological pressure, condensed com-

petition calendar, frequent trips, lack of time for training put the players and their professional teams in an increasingly difficult position to preserve their health. This is why ensuring the availability of players for training and competition is one of the fundamental tasks of the sports preparation system.

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THE WINNING METHOD

LÁSZLÓ JÁMBOR

Mentor, Think Tank, Performance Processes Development and Decision Support Processes Coach

I decided to show in a limited resume, - in the conference, through the transformation process of my last soccer project in Uzbekistan/Pakhtakor. In this presentation I would like you to see that the success of the recovery and REHAB processes are not isolated subjects, but they are the contextually part of a bigger structured concept

The exercises for success targeted training, recovery and injury prevention or rehab processes, must protocol (some-time in matrixes), and must be selected by a structured concept.

Using the component process model as a framework, and focusing on the hippocampus, its subfields, and specialization along its longitudinal axis, along with its interaction with other brain regions, we consider these new developments and their implications for the organization of episodic memory and its contribution to functions in other domains.

We know that the decision processes are finishing in the prefrontal cortical area (PFC). The consolidation of remote contextual fear or fearless memories correlate with progressive strengthening of excitatory connections between PFC engram neurons active during learning and reactivated during remote memory recall, whereas the extinction of remote memories weakened those synapses.

The game situation problems solution exercises must be contextually strengthening the above standing fact and must be possible to make fearless-fault- actions in the soccer trainings and soccer matches. Because only the fearless episodic memories can stimulate the players' creativity.

Our new concept is that we trained the cooperative game situation solution ability complex of a player with the intervals of defense - transition- offense - transition, and used only sport-specific, functional, and game situation context interferer exercises.

Where sport specificity and functionality were determinates. The aspects of categorizing an exercise library are: Soccer

exercises, like chaos exercises, system exercises, combination exercises, and Integrated exercises, which are non-soccer exercises which everybody in group need to execute, as pre-warm up, preventive exercises, and Additive exercises (non-soccer exercises which individually need to execute)

By selecting a functional exercise library, we could plan safe the daily weekly and longer periods' trainings-programs, without any injury problems, if we used a special data confrontation method too.

WHAT EVERY COACH AND REHABILITATION PROFESSIONAL SHOULD KNOW ABOUT THE ANTERIOR CRUCIATE LIGAMENT (2022 UPDATE)

DR. ZSOLT KNOLL, PHD

Orthopedic Specialist, Sport Surgeon, Director of The Emineo Private Hospital

The aim of the presenter is to demonstrate, based on an evaluation of academic literature and personal experience, the prevalence of anterior cruciate ligament injuries in sports, the most innovative surgical procedures, and the benefits and drawbacks of using grafts as a replacement. In his presentation, he examines the most recent developments in post-cruciate ligament surgery rehabilitation, outlines the requirements to return back into sports, explores prevention options, and determines the causes of injury. In his lecture, he makes an effort to compare his personal experiences with current global trends and scientific findings.

Keywords: anterior cruciate ligament injury, graft, rehabilitation, prevention

THE ACCESS TRAINING INJURIES AND THE EFFECTS ON GRASSROOT ATHLETES

DR. ZOLTÁN KLEMENCICS PHD

Chief Medical Doctor

The first rapid growth phase of youth athletes (between 6-10 years) comprises of getting familiar with ball games and with the improving coordination and pace enhanced by trainers children begin to enjoy sports. The most frequent localisation of pain in this age is the calcaneus apophysis. It is a cap of cartilage tissue at the end of bones that allows them to grow. If it is overburdened this area develops an inflammation and the cartilages may be vulnerable to be fractured. Hip joints can be affected the same way by apophysitis: due to certain movements trochanter major, minor and iliac crest can be painful. Regarding the Lumbar spine: vertebrae at that age consist of different levels of rigidity. Paravertebral muscles keep them stable against all kinds of movements.

The next phase between (10-12 years of age) is described by slower growth, adaptation (agility and speed ought to be increased at that age) of the muscular tendon system to the new dimensions of the skeleton, coordination become more precise, and the complaints tends to appear after long tenuous load. Pain localisation is the same as before: calcaneus, tibia, lumbal and thoracic spine.

The second fast growth period (12-16 years of age) proved to be the most difficult one. Separation between boys and girls happens at different ages. Coordination falls apart completely, which may be the reason of the plethora of excessive training induced injuries. Dissociation of coordination have to be settled by trainers, strength ought to be increased by own-body weight exercises (a developing body is only able to adapt to own weight exercises), just like speed and agility. Regarding knee disorders, Schlatte Osgood is the most common one. If the femur bone grows too fast and the muscles are not stretched after training, the hamstring extends and the apophysis can lift it away from the bone basis and may teared apart. Scheuermann-disease affects primarily boys around the age of 13-14. Ossification of Thoracic vertebrae can be easily prevented by chondroprotective drugs, which may prevent pain and limited ROM.

The final part of development is called the adaptation phase (16-20 years of age), in which final harmony between muscle and tendons and final coordination develops. Furthermore, weight training can be carried out without any side effects. We must beware of the different biological ages of children in the same age groups-exercise load has to be according to the biological age. Playing in different age categories may lead to overload and coordination problems that may lead to stagnation or slower development discomfort after exercise pain on load or continuous pain.

Treatment must be always individual, when the complaints appear, loading shall be reduced to 50-60%, it is important that complete rest may result in the deterioration of the critical area's circulation. Massage with a cube of ice in the critical area can cause rather vasoconstriction than vasodilation and gives back the dynamism of the blood vessels and allows the body to use their own regenerative capability. In the case of painful inflammation, after reducing inflammation with painkillers, when the complaints subside, the load needs to be increased immediately until the point of pain. With this intervention the time of complete rehabilitation shrinks from 6-9 months to 3-4 weeks.

Keywords: rapid growth phase, individual treatment, coordination

„AVAILABILITY”: THE SECRETS OF HIGH PERFORMANCE SPORT – ROUND TABLE

PROF. DR. SC. IGOR JUKIC¹, DR. KNOLL ZSOLT², DR. FRANCESCO CUZZOLIN³,
VLADIMIR BANKOVIC⁴, BÁDER MÁRTON⁵

¹Sport Scientist, Advisor of ELPA, ²Orthopedic Specialist, Sports Surgeon, Medical Director of the Emineo Private Hospital, ³Head of Performance – Olimpia Milano, ⁴Strength and Conditioning Coach – Serbian Women’s National Volleyball Team, ⁵Former Basketball Player, 98-time Hungarian National Team Member, the Professional Director of Budapesti Honvéd SE (men’s basketball)

In this session the experts try to make a conversation about the topic of availability could be the secret of high performance in sport. Availability it’s something that we are not born with we have to learn it how to be ready, how to perform on our highest standards. The importance of those how you are performing on the practice, how you are resting off the court how you are organizing your life, because basketball is the first and everything comes after. This is very important in this topic. The next fact is, that the most talented player is the one who can recover faster, who is actually available faster to be on the court. And interesting that the capability of recovery is also in genetics, the woman tends to recover faster than a man. There is a explanation about that, they are more committed when they are believing in you and when they’re believing in the process they tend to be more committed to that program. They try to do their best and they are continue to pushing until the end. There is another point of view when we speak about availability, so we need to push the players out of the comfort zone, but it don’t need to be just with intensity it also can be a psychological pressure one of the highest on the court. The coach have to teach players how to fight with the psychological burden and how to find problem solution. If they have learnt this they will be able to play make decisions much faster and that can be a key to success. To know some information about the player’s health is very important, so this is why we track their perceived fatigue, because the reaction of the player of the training is could be individual. To the availability off the court is really important, because a professional players have to accept the coach’s orders which are targeting off the court life of the players. So the professional players have a kind of lifestyle whic learnable from the

coach, from the older players, and the proper way of life is can help to be the player available on and off the court. To the availability of a professional players is not depend only from the players but from the background also. In the background roles the coach, the performance expert, the medical staff (doctors, physiotherapist), nutritionist, etc. The success, and highest performance can reach if all the team members working for it.

Keywords: Availability, coach, high sport performance

PRE-HABILITATION, RE-HABILITATION, EDUCATION

BANKOVIĆ VLADIMIR

Volleyball Federation of Serbia
Strength and Conditioning Coach

Modern sport as a sociological phenomenon has tendencies to connect different professional areas into a structurally organized platform that is aimed at achieving the defined goals of the sports collective. There is currently no clear differentiation in the abovementioned structure from the aspect of qualitative and quantitative participation in the organized structure of activity. Merging all professions into a multidisciplinary team represents the peak of a well-organized ensemble that can help athletes achieve the best possible form as well through interdisciplinary collaboration reduce injury incidents.

As an example, we can take the process of returning players to the sport after an injury, looking at all aspects of this problem. Firstly, we need to define good terminology as well as systematization of injuries for better communication between professional staff, but also between clubs, national teams and other factors within the sport. The next step would be to define clear criteria that should precede the next stages in the returning player on the field and not just consider the time-line approach to rehabilitation. An example of this approach would be through the process of RECONDITIONING. A process that is geared towards the needs of the athlete, not just around site of the injury.

One of the most important stages in prevention of sports injuries is the process toward understanding the requirements of sports, the analysis of the most common injuries for the preferred sports discipline as well as the individual risk factors. Knowledge around modified and non-modified risk factors which can negatively affect the players wellbeing are of great importance in the process of reducing injuries on the individual level. Movement quality is commonly assessed to identify movement limitations and guide exercise prescription. We cannot overlook the need for a detailed analysis of the quality of movements at all levels, from elementary level to narrowly specific level of the sports division.

Through all these processes, the education of not only toward athletes but also experts in entire multidisciplinary

team. Better education around all mentioned topics as well cooperation between players and multi-disciplinary team is an opportunity to reduce unwanted external and internal risk factors that lead to injuries.

Keywords: multidisciplinary team, reconditioning, risk factors, holistic approach

VISUAL MANAGMENT OF PERFORMANCE TEAM

MLADEN JOVANOVIC

Sport Scientist, PhD candidate

Lean and Agile movements brought various useful methodologies and tools that can be useful in sports performance and planning. One such tool is the Visual Board. Visual Board represents a simple visual tool that helps reinforce certain crucial behaviors: (1) building a performance team by improving transparency, trust, responsibility, ownership, and overall communication, (2) iterative or Agile planning through rapid feedback and establishment of few “ceremonies” around the board, (3) formulating “standard operating procedures” (SOPs), such as return-to-play protocols, (4) managing athlete health and training statuses, (5) visualizing and reviewing key-performance-indicators, and (6) managing the team and individual tasks. After reviewing the aforementioned six Crucial behaviors, implementation of the Visual Board in the free web-app Trello is demonstrated.

RECOVERY UPDATE 2023

PROF. DR. JULIO CALLEJA-GONZALEZ, MSC, MS, PHD
Sport Scientist, Spanish Olympic Committee

Basketball can be described as a moderate-to-long duration exercise including repeated bouts of high-intensity activity interspersed with periods of low to moderate active recovery or passive rest. A match is characterized by repeated explosive activities, such as sprints, jumps, shuffles and rapid changes in direction. In top-level modern basketball, players are frequently required to play consecutive matches with limited time to recover. To ensure adequate recovery after any basketball activity (i.e., match or training), it is necessary to know the type of fatigue induced and, if possible, its underlying mechanisms. Despite limited scientific evidence to support their effectiveness in facilitating optimal recovery, certain recovery strategies are commonly utilized in basketball. It is particularly important to optimize recovery because players spend a much greater proportion of their time recovering than they do in training. Therefore, the main aim of this presentation was to facilitate useful information that may lead to practical application, based on the scientific evidence and applied knowledge specifically in basketball.

Keywords: consecutive matches, fatigue, recovery

THE EFFECT OF PHYSICAL EXERCISE ON ARTERIAL STIFFNESS PARAMETERS IN YOUNG SPORTSMEN. IMPORTANCE OF NONINVASIVE INVESTIGATIONS IN YOUNG BASKETBALL PLAYERS.

PROF. ATTILA CZIRÁKI MD., PHD., FESC

Heart Institute, Medical School, University of Pécs, Hungary

The measurement of arterial stiffness parameters, i.e. the aortic pulse wave velocity (PWVao) and augmentation index (AIXao) an accepted marker for detecting individual cardiovascular risk in adults. The aim of present study was to compare and contrast central aortic stiffness parameters measured in young sportsmen and in young healthy volunteers at rest and during exercise. Furthermore, we investigated 2-D echocardiographic parameters in the above-mentioned population.

Serial measurements of PWVao, and AIXao were performed noninvasively, using Arteriograph (TensioMed Ltd., Budapest, Hungary). Serial measurements were performed after 15 minute rest, and immediately after isometric, and dynamic exercise stress test. Isometric exercise was performed by holding the hip 30 seconds and press up five times. The third measurement was performed immediately after a constant distance of running. Echocardiographic examinations including two-dimensional (2-D), M-mode and Doppler imaging techniques were performed. Global systolic function of the left ventricle was calculated by using the Simpson formula [10]. Transmitral inflow pattern was obtained from the apical four chamber view with pulsed Doppler. We first determined the reference values of PWVao and AIXao in a large (1802 subjects) young male population aged between 3-18 years. We also determined the effect of single-bout exercise on aortic stiffness parameters in 150 young male subjects (mean age 15.2 ± 2.4 years). Stroke volume (SV) and cardiac output (CO) also were investigated and compared by means of Arteriograph and real time 3-D Doppler echocardiography. We did not find significant differences of PWVao in comparison of sportsmen (S) vs. healthy volunteers (V); (5.82 ± 0.14 m/s vs. 5.83 ± 0.12 m/s for S and V groups respectively). We found that mean PWVao values increased from 5.5 ± 0.3 to

6.5 ± 0.3 m/s ($P < 0.05$) in young boys (1802 subjects ; $P < 0.05$). The increase, however, was not constant, and the values exhibited a flat period between the ages of 3 and 8 years. We found significant increase of PWVao values which were measured during dynamic exercise compared to those values which were measured at rest (8.06 ± 0.55 m/s vs. 5.82 ± 0.14 m/s ; $p < 0.001$). Similarly dynamic exercise caused significant increase of PWVao compared to those which were measured during isometric exercise stress test (8.06 ± 0.55 m/s vs. 5.86 ± 0.18 m/s ; $p < 0.002$). In contrast AIXao values exhibited nonsignificant decrease during isometric and dynamic exercise compared to resting AIXao values. We found correlation in stroke volume parameters measured by Arteriograph and echocardiography (82.6 ml vs. 79.2 ml ; $r = 0.78$).

Our findings encourage to apply single and serial measurements of arterial stiffness parameters in young sportsmen during physical exercise. To summarize, consistent conclusions can be drawn regarding the effects of isometric and dynamic exercise on arterial stiffness. We showed that especially an acute dynamic exercise bout increases arterial stiffness in young male sportsmen aged between 11 and 16 years. Further studies are also warranted to examine the effects of an acute and a long-term exercise program on arterial stiffness. We also planned to create a large database which can help coaches to select players as well as to estimate current physical condition.

TRAVEL FATIGUE

PROF. DR. JULIO CALLEJA-GONZALEZ, MSC, MS, PHD
Sport Scientist- Spanish Olympic Committee

Team sports players are increasingly presented to travel national and international trips, usually resulting in travel fatigue and jet lag. Despite considerable agreement that travel fatigue and jet lag can be a real and impactful issue for players in terms of performance in order to reduce injury risk, evidence on optimal assessment and management is lacking. The experiences and knowledge in travel fatigue, jet lag and sleep in basketball summarizes similar effects than other team sports to formalise a review and consensus document. Therefore this presentation describes definitions, terms used in the field of circadian physiology. Besides, travel fatigue provides criteria and recommendations for helping travel fatigue and jet lag in basketball sport, although the scarcity of scientific evidence in basketball restricts the strength of recommendations that are possible but the consensus group identified the fundamental principles and interventions to consider for both the assessment and management of travel fatigue and jet lag. These are summarised in travel tool boxes including strategies for pre-flight, during flight and post-flight, in most of cases related to sleepiness

Keywords: fatigue, sleepiness, jet lag

HIGH PERFORMANCE TEAM: COACHES' PERSPECTIVE

NEVEN SPAHIJA

Top International Basketball Coach with NBA Experience

Conditioning coaches were outsourced: that means they work in the university of sports, as season start than he goes home he never saw us I convinced my head coach and our president that we have to sign professional strength and conditioning coach full time. We are the first Croatian team with a full-time strength and conditioning coach, he was an ex-basketball player at the study university of sport in. We cannot understand every part of basketball, so it is important to get the right professionals for the right jobs. We're going to start with the structure of one NBA organization we going to try to explain step by step how it works what the structure looks like and how to work inside that organization.

Every program every structure starting with the leader of the program you have assistant coaches, player development coaches, video room people analytic department, on the other side are sports medicine and performance leader sports medicine athletic trainers, physical therapists, massages therapists, performance strength and conditioning coaches, data sports science analysis, nutrition chefs, and a nutritionist.

As a leader of the program, we have to use the knowledge of strength and conditioning coaches and all people working in sports medicine and performance department but know basic staff not to go that deep inside their activities. That department with the assistant coaches, it's so huge that when I start to work, I need the hours and hours with my assistant coaches to prepare something to show to my players. I realize that know-how and knowledge are very important, but it has the same importance to understand what I don't know.

There are so many characteristics the leader of the new age: first of all got to be humble, open-minded, and never stop to learn open and able to listen. We cannot planification on to do the daily weekly or monthly schedule if we don't ask them.

I'm a professional coach for more than 20 years since day one I didn't do even a one-time weekly program, that's been my strength and conditioning coach, and the leader of this department who does it, he informs me how many activities my team is going to have, how many of these activities is their activities, and on the basketball part how many activities I going to have, but I'm only deciding what I'm going to do basketball-wise.

EuroLeague structure:

Europe NBA give me a lot of knowledge wise gave me a lot how much I can use that knowledge working here in Europe but maybe only 10 to 20%. NBA spends a lot of money on these staff coaches and the sports medicine and performance team, and let's say in theory right now if you're going to take NBA money and give to someone in Europe to make it better. Maybe 1% knowing the mentality and philosophy of the executives here in Europe. Maybe 5% of the clubs going to take that money to invest here, other owners going to buy better players and will stay again on this level without improvement.

How to work and communicate and team-wide criteria:

On daily basis, we meet in one room together with all the basketball coaches including the head and the leader of the performance staff what we are talking about injuries and we are talking about a load of practice which means like I said before he's going to tell us what intensity who can play practice contact or individual.

NBA game schedule is completely different from one in Europe and if you have the competition of 82 games and you want to burn one player, because you think that he can play and let's say potentially. Probably it is some final of the NBA probably he's going to play but the short term in the middle of this season if the leader of performance staff saying that he cannot play more than 30 minutes you must listen be-

cause in long term you going to lose, and the coach doesn't want to take that risk.

There of course daily communication evaluating the players and also 4-5 times per season we sit on master meetings where more people from performance staff is coming and they saying to us the progress of the player.

Europe is more team approach, the NBA is more individually and when you have such philosophy you have so many things to emphasize and so many things to improve together with the performance staff.

The player is always tired and low energy, and we don't understand because the measurements and everything is great. Somehow, we find out he has another strength and conditioning coach at home, and these people, the staff didn't have a clue. What else players can make a problem with- lifestyle problems. In the NBA you cannot touch the private life, you have to trust what they're doing. In Europe it's a little bit different you can control a little bit more if inappropriate things happen how he solves problems as head coach: with an advisor, well knowledge of people, and huge experience.

In the certain moment we have to work together but we have to trust and commit to the program is the key team-wide criteria in the organization we know how to behave, how to work, and what we cannot, what players can, what players cannot, everything is known in advance. Team-wide criteria consider view with their measurement we meet together then decide. The players have to trust and be committed to the program

Conclusions: If people start to doubt your program because you didn't do all of these previous actions in the organization you're going to suffer your result going to suffer. What kind of problem you can face: can you have the best structure and best people in every department but always see someone who can challenge you like the leader, the head coach? They are afraid of losing the game and thus they don't concentrate on the long run and healthy players are the most important in the program and the players also have to trust and be committed to the program.

In the certain moment we have to work together but we have to trust and commit to the program is the key team-wide criteria in the organization we know how to behave, how to work, and what we cannot, what players can, what players cannot, everything is known in advance. Team-wide

criteria consider view with their measurement we meet together then decide.

Keywords: basketball, European basketball, high performance team, coaching job, sports science

INTERVIEW SESSION

PROF. DR. SC. IGOR JUKIĆ, PHD

Faculty of Kinesiology, University of Zagreb
High Performance Sport Center (Croatian Olympic Committee)

NEVEN SPAHIJA

Top International Basketball Coach with NBA Experience

I've been working in the NBA for the last three years, it's a really advanced structure, and in my presentation I wanted to tell you how I see the system from the inside and what my experience has been. Every program, every system is based on a leader, in this case, in basketball, it's the head coach, who has the opportunity to use the knowledge that, for example, the strength and conditional coaches or other professionals in the program have acquired over the years. However, it is important to remember that no one can learn all the knowledge, but you can learn the basics - on the other hand, you should not get lost in the details.

It is very important to recognise that what you don't know is as important as what you do know. When I see that I am lacking in a particular area, I have to choose my colleagues in such a way that I have full confidence in them to deliver the programme. A good leader should not be stubborn, should be open to new things and should never stop learning.

NBA teams have 20-30 people working in the background and everyone is heading in the same direction, working towards a common goal and common success.

Tons of money is spent in the NBA, when we talk about these things, obviously everybody thinks of player contracts, but in the NBA they also spend a lot of money on the staff, the assistant coaches, the sports medicine, the whole strength and conditioning team.

Members of the professional staff meet on a daily basis when it comes to workload, injuries and rehabilitation. What's discussed in these meetings is the intensity of training that players can do, what a player can practice, who can only be at seventy percent and who needs individual train-

ing. There is daily communication not only with the trainers, but also with the players themselves, because it is important that they know about every move and every decision in advance. The programme also has to be structured in such a way that the player doesn't feel good about it, but feels strong, so that he can develop in relation to it, knows that he has a future and that what he is doing makes sense for his career. That requires confidence and commitment. We have big meetings 4-5 times a season to discuss the basketball players' fitness levels and where we are at with the goals we set at the beginning of the season. In the NBA, there are a lot of individual goals, which is different from Europe, where you focus more on the team, in the NBA everything is more individual.

The secret, I think, is that I always trust my colleagues. Of course, hard work is basic, but you have to find the balance and not get bogged down in training.

PSYCHOLOGICAL ASPECTS OF RECOVERY

FABIO FOSSATI

Mental Coach of Virtus Bologna

The mental training can be very useful for the prevention and rehabilitation of physical injuries. The first step is to be aware that a relaxed body can help all athletes to have better performances and reduces the likelihood of injury. By using some different mental techniques we can give a right support not only to professional athletes but also to all the people who play sports.

Keywords: mental training, injury reduction, mental techniques

INTERVIEW SESSION

PROF. DR. SC IGOR JUKIC¹, DR. LÁSZLÓ RÁTGÉBER, PHD, HABIL.², NEVEN SPAHIJA³,
DALMA IVÁNYI⁴, MÁRTON BÁDER⁵

¹Sport Scientist, Advisor of ELPA, ²Master Coach, Associate Professor at UP-FHS, UPE, ³Top International Basketball Coach with NBA Experience, ⁴10 times Hungarian Championship winner, 134 times Basketball Player of Hungarian National Team, the Immortal of Hungarian Basketball, ⁵Former basketball player, 98-time Hungarian National Team member, the professional director of Budapesti Honvéd SE (men's basketball)

One of the first thought-provoking declaration of this round table interview session was that the expression „high performance team” means the players in the locker room. These players have their own rules among each other. They have their „intimate” space and most of the time not even staff members are welcomed into this space. The locker room is an especially important place to the athletes since the time that they spend there together gives an excellent opportunity to build trust and commitment towards each other.

Another thing was mentioned: it's especially needed to have not just one, but ideally two or three leaders within a team, who can help in the trust building process. In many cases these members are not appreciated enough, nonetheless they're the core and the soul of their club.

Then the next question they started to unfold was about the team chemistry and about the crisis management within a team. Since there are „too many” games within a season, it could happen that there are more „downs” than „ups”. When managing these critical situations it's crucial that the team members spend some time together out of the court (e.g. having dinner in a restaurant) because that way it's easier to deepen the connections and chemistry between them, so they can trust each other more and help the suffering individuals by being next to them in need.

Another indispensable element of a „high performance team” is an open-minded head coach, whose job also continues out of the court. Building a „high performance team” doesn't stop in the sport arena.

A very important thought was also added about the locker room intimacy. They said that the head coach mustn't (and can't) control what is happening inside the locker room

because it's a holy place. It's only the business of the team members.

At this point the round table conversation took an interesting turn. They started to talk about ego, and how sometimes ego can be the biggest enemy instead of the supporter of the individual. It's a well-known fact that among professional athletes it's not an easy job to control or give up ego. But if they manage to do it, other members of the team, can look up to them easier and can appreciate them more. When you become a coach after being a basketball player it's hard to separate your coach and athlete self from each other. Every player and coach have to find the thin line between ego and winner mentality, since sometimes it feels like the same, despite the fact that it's not.

Then they brought up another exciting topic. It was about the fact that how important it is to create a sense of belonging in the players, so they not only feel that they're a part of a team but also that they are part of the whole club. Ideally you have to start teaching these things to kids at a fairly early age (e.g.: the history of the club, why it's so important to play for the national team etc.). In spite of these facts success is still cannot be guaranteed. Building a culture is an essential part of success. To build a culture you need a community that consists of like-minded people and if like-minded people come together to create something that could last for even decades... Anything could happen.

Keywords: community, locker room intimacy, high performance in sport

ABSTRACTS OF POSTER PRESENTATIONS



BIOMECHANICAL LOWER LIMB INJURY RISK FACTORS OF BASKETBALL PLAYERS – FORCE RATIO AND BILATERAL ASYMMETRY OF THE HAMSTRING AND QUADRICEPS MUSCLES, THEIR CONNECTION WITH SPORT-SPECIFIC MOVEMENTS IN YOUTH FEMALE BASKETBALL PLAYERS

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Introduction

The quadriceps (Q) and hamstring (H) muscles have prominent role in basketball, as they generate substantial amount of force and actively stabilize the knee during lower limb movements. The strength ratio of these muscles (HQR) should fall within an optimal range to fulfil the stabilizer functions. Deviation from optimal values is associated with increases risk of non-contact lower limb injuries, thus by assessing HQR players with increased risk of injury can be identified. As no optimal range is available for our target population (15-18 years old female basketball players), reference intervals should be constructed through numerous measurements. Previous studies suggested that in case of youth basketball players, reliability of consecutive HQR measurements might not be sufficient, therefore this aspect should also be investigated. Hence, in our study we aim to define reference intervals of optimal HQR based on our own data for Caucasian female youth basketball players. However, non-contact injuries frequently occur in relation to jumps, thus we are also interested in the relationship between bilateral asymmetries registered during dynamometric measurements and vertical jumps.

Methods

31 Caucasian female youth basketball players from Sopron Darazsak Sports Academy, 16±2 years of age, participated in the study. Concentric HQR was measured three times of 18 players, four times of 13 players, using an isokinetic dy-

namometer (Humac NORM, CSMi, Stoughton, MA, USA) set at 60°/s angular velocity, between 20-100° range of motion of the knee. Test-retest reliability between the consecutive measurements was characterized with Pearson correlation coefficient. Reference interval was constructed using percentile ranking method, with boundaries of 2.5th, 16th, 84th and 97.5th percentiles. Countermovement jumps were performed on a bilateral forceplate (ForceDecks FD4000 Dual Force Platforms, Vald Performance, Brisbane, Queensland, Australia), during which take-off and landing force asymmetry were registered. Relationship between torque asymmetry and jump-related ground reaction force asymmetry was investigated with Pearson correlation coefficient.

Results

Test-retest reliability of HQR values between the first two measurements were poor ($r=0.52$), between the 2nd and 3rd measurements questionable ($r=0.63$), while in relation to the 3rd and 4th measurement acceptable ($r=0.71$). Reference interval was formulated from data of the 3rd and 4th measurement. HQR was considered as excessive Q dominance under 0.53, enhanced Q dominance between 0.53-0.58, average between 0.58-0.80, enhanced H dominance between 0.80-0.90, and excessive H dominance above 0.9. Regarding vertical jumps, neither take-off, nor landing force asymmetry showed significant relationship with either quadriceps, or hamstring force asymmetry.

Conclusions

Insufficient test-retest reliability of the first two HQR measurements revealed the importance of familiarization. Results also suggest that measurements can only be considered reliable from the third occasion. Reference interval appeared to be wide, which can be due to low sample size. Asymmetries detected during dynamometric measurements were not reflected in jumps, thus sport-specific biomechanical assessment is of great importance. In the future, we intend to build a database of biomechanical performance indicators, supplemented with a lower extremity injury register, in order to identify factors and values that imply increased risk of injury.

Keywords:

dinamometer, HQR, concentric contraction, reference interval, bilateral asymmetry, vertical jump, take-off force, landing force

ROLE OF RSQ1 DEVICE IN REHABILITATION OF MUSCLE TEAR

Kovačić Igor

PhD student, University of Pécs, Hungary
Faculty of Health Sciences

A muscle tear is a muscle injury in which the muscle tears and breaks the muscle fibers. It can be a partial or complete rupture. It is caused by the action of an external, mechanical force that exceeds the elasticity and strength of muscle fibers. Injury during sports activities (sports injury) is common in case of insufficient preparation and warm-up before training, due to fatigue and too strenuous training, as well as during uncontrolled exercises on equipment in the gym. RSQ1 is a unique device for neuromuscular stimulation with a high frequency signal of over 10kHz. Its advantages compared to other devices for electrotherapy: it accelerates circulation almost instantly, creates hypertrophy, increases saturation, creates a large number of motor units as well as a quick analgesic effect.

Case study

Subject: 24 years old female professional basketball player, with 14-16 hours spent on the court (included a game as well) per week.

Problem: while sprinting during the practice sharp pain appeared on the lateral side of the quad muscle. This sudden feeling usually implicate on a suspect of muscle tear

Procedure: after positive (painful) palpation and slight strength testing a US diagnostic was performed by radiologist specialist. It was confirmed muscle tear (grade II) of m. vastus lateralis, and size of the tear was 1,2 mm wide. Hemorrhage and liquid around the injured tissue were present as well. It was suggested 3 week of rest with physical therapy included and US control on every 7 days.

Methods

First time during the rehab sportsmen with muscle tear the RSQ1 recuperation program was included 24hrs on the injured muscle. Only during the physical therapy (kriotherapy,

magneto therapy, laser and IFS) which last 1hr was removed. Immediately after the therapy session RSQ1 was put back on injured place and "recuperation protocol" was set on. This protocol results in an increased blood flow and higher saturation of the blood in the treated area (goes up to 30%), which cause a faster recuperation of the muscle tissue. Injured athlete is trained to use this device at home and keep it working on 24hrs per day.

Results

After 3 days injured athlete felt capable to use muscle more without pain so the isometric exercises were including together with RSQ1 device on it. 7 days after the injury a US diagnostic was done with results of only visible 0,8 mm rupture and almost complete disappearance of hemorrhage and local liquid. 14 days after the injury, US showed that there is not any tear noticeable on the injured area. RSQ1 device is now also included during the process of isometric and concentric exercises for quadriceps muscle. Recuperation protocol was still constantly included. 3 weeks after the injury, US showed no signs of injury and the testing showed only 15% less strength of the injured leg than before the injury. Athlete was able to return to the court faster and more prepared than expected.

Conclusion

Regardless the "usual" methods in physical therapy which are included in rehabilitation of this kind of injuries, adding the RSQ1 device, especially the recuperation program 24hrs, shown us great example of recovering this and similar types of injuries. This result of the combining these programs suggest that using the RSQ1 method is a good alternative for people who need for their professional reasons come back faster from types of injuries like this.

DIFFERENCES IN VERTICAL JUMP PERFORMANCE BETWEEN YOUNG FEMALE BASKETBALL AND VOLLEYBALL PLAYERS

Tuza, Kornelia¹; Tóth, Kata^{2,3}

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²Sopron Darazsak Sports Academy, Sopron, Hungary

³Sport Economics and Decision Making Research Center, Hungarian University of Physical Education and Sport Science, Budapest, Hungary

Introduction

Volleyball and basketball are two popular field sports that share similar, but not entirely identical motor ability requirement. Both sports demand explosivity of the lower limb, especially in vertical direction, as volleyball players need to hit the ball above the net, while basketball players need to jump for a shot and rebound. But in which sport is explosivity more crucial? The aim of our study was to compare youth female basketball and volleyball players in terms of their jumping performance.

Methods

70 Caucasian female youth athletes were involved in this study; 35 volleyball players (16±1 year) and 35 basketball players (16±1 year). After warm up subjects performed by 3 countermovement jumps on a bilateral force plate (Force-Decks FD Lite Dual Force Platforms, Vald Performance, Brisbane, Queensland, Australia). During the jumps, hand were held on the hips. Jump height, calculated from flight time and peak power relative to bodyweight was compared between the two sports with Student independent t-test. Results were considered significant $p < 0.05$.

Results

Significant difference was found in jump height between the two sports: basketball players jumped higher compared to volleyball players ($p=0.007$). Interestingly, this difference was not reflected in relative power ($p=0.934$).

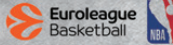
Conclusions

However, vertical movements seem more prominent in volleyball, basketball players showed higher jump height. Similarity in peak relative power suggests that lower limb power – because of the high number in change of directions – plays an important role in both ball games. Further studies are needed to measure more parameters related to jumps and to compare more different ball games (for example: handball and football) to get an insight into the explosivity profile of field sports.

Keywords: basketball, volleyball, forceplate, vertical jump, youth athlete, peak power/body mass



Neven Spahija 



Plenary presenters:

Top International Basketball Coach with NBA Experience

He is one of the most famous coaches in Europe, one of those exceptional ones who also worked as an assistant coach in the NBA. He also won championships in Croatia, Slovenia, Lithuania, Israel, Spain and Turkey, but in 2010 he also made history as a EuroCup winner. Between 2014 and 2017, he was the assistant coach of the Atlanta Hawks, and in the 2019-2020 season, assistant coach of the Memphis Grizzlies. Apart from Europe and the USA, he also worked in China, in 2020 he took over the Shanghai Sharks as head coach. At the national team level, he coached the Croatian National Team between 2001 and 2005. He spent the last season with the Euroleague team of Baskonia.



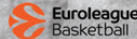
Prof. Dr. Sc. Igor Jukic, PhD

Sport Scientists, Advisor of ELPA

High-performance specialist in sport, founder (2003) of the "European Physical Conditioning Association", founder and Advisory Board member of the Euroleague Players Association (ELPA). European champion with U18 Croatian National Team in 1996, and with U20 team World Championship silver medalist in 2001. As member of the Baskonia-Alaves Group from Spain he established a unique high-performance system (BAL). Head of Croatian High Performance Sport Center, as a part of the Croatian Olympic Committee.



Dr. Francesco Cuzzolin, PhD. 



Head of Performance – Olimpia Milano

Francesco is the first European to become Head Strength and Conditioning Coach in the NBA, with the Toronto Raptors. He has worked with two of the most successful European basketball teams, Benetton Treviso and Virtus Bologna, with the Russian and the Italian National teams. As a consultant, he has shared his expertise with the Latvian National Team, CSKA Moscow, and Fenerbahce Istanbul. Francesco is currently the Head of Performance for Olimpia Armani Milano, the Euroleague Basketball team. Francesco has a Ph.D. in physical exercise applied to industrial engineering and is a member of the ELPA Performance Advisory Board.



Prof. Dr. Julio Calleja-González, Msc, Ms, PhD

Sport Scientist – Spanish Olympic Committee

The Chair of the University of the Basque Country, honorary professor of the Faculty of Kinesiology Zagreb, currently works for the Spanish Olympic Committee. Former head of strength and conditioning area of Spanish and Dominican National Basketball Teams. From 2017 he is the personal performance scientist of the 2019 NBA champion Serge Ibaka, Pau Gasol. Member of the Executive Board of the European Physical Condition Association (EPCA) and the Euroleague Players Association (ELPA).



Vladimir Bankovic 

Strength and Conditioning Coach – Serbian Women's National Volleyball Team

An excellent strength and conditioning specialist, who has achieved outstanding results in several sports during his career. He can be proud of several world-class victories and prizes as a strength and conditioning specialist of Serbian Women Volleyball National Team Serbia: 2 Olympic medals (2016, Rio de Janeiro 2nd place, 2021, Tokyo 3rd place), 3 World championship medals (2008, Japan 3rd place, 2018 and 2022, 1st place), 5 European championships medals (2011, Belgrade 1st place, 2015 Holland- Belgium 3rd place, 2017 Azerbaijan 1st place, 2019, Turkey 1st place, 2021 Serbia 2nd place), 4 European Volleyball League medals (2009, 2010, 2011 Turkey 1st place, 2012 Czech Republic 3rd place). His experience at National teams is also remarkable in several sports, as he worked with the Man's Junior National handball team Serbia and Montenegro (9th place at World Championship), Women senior Handball National Team Serbia and Montenegro (9th place at World Championship) and Women Handball National Team Serbia and Montenegro (2nd place in Mediterranean Games). He finished 1st place in Hungarian Championship and Cup with Pick Szeged Handball Team, more time Championship winner and Cup winner, and 2nd place at CEV Cup with Volleyball Club Red Star.



László Jámbor

Strength and conditioning coach, performance development processes and decision support processes director, mentor

A former professional basketball player and coach, he has been active in football for more than three decades as a performance enhancement and conditioning coach. Winner of the Champions League, UEFA Cup, Team World Cup and European Supercup with Ajax Amsterdam, alongside world famous head coaches such as Leo Beenhakker, Louis Van Gaal, Morten Olsen or Ronald Koeman, but also helped the work of such excellences as László Bölöni, Erwin Koeman or Shota Arveladze. Apart from the Netherlands, he worked in Saudi Arabia, Monaco, the United Arab Emirates, Turkey, Uzbekistan and Georgia, but he was also the sports development director of the Hungarian Football Association, an assistant, coach and performance development process manager for the National Team.



Mladen Jovanović 



sport scientist, PhD candidate

Physical preparation coach and sports scientist from Serbia, currently he is pursuing PhD at the Belgrade University with the topic of sprint profiling. Mladen used to work in basketball, football, Australian football, and combat sports. He also published three books (HIT Manual, Strength Training Manual, and bmbstats: magnitude based statistics) and developed AthletesSR software for team management and monitoring. He is currently serving professional consultancy role at the National Basketball Academy in Pécs.



Fabio Fossati   
Mental coach of Virtus Bologna

Currently the mental coach of the 2022 EuroCup winner Virtus Segafredo Bologna. Fabio Fossati is a teacher at the University of State of Brescia, FIBA Europe Coaching Certificate program instructor and mentor coach of the Ratgeber Academy. He works as a television sport commentator for RAI, Sky and Sportitalia. As a head coach he is a three-time Italian Championship, two-time Italian Cup, four time Italian Supercup winner. As a professional basketball coach he lead the Camerun, Bangladesh and Switzerland National teams.



 **Dr. Zsolt Knoll, PhD**


Orthopedic Specialist, Sports Surgeon, Director of the Emineo Private Hospital

Orthopedic specialist, sports surgeon, has been dealing with the treatment of musculoskeletal diseases for more than 30 years. His areas of expertise are sports surgery, orthopedics, knee surgery and traumatology. Most often, he heals injuries regarding the knee, shoulder and ankle joints. Following the principle of individualized cruciate ligament replacement in knee joint replacement, he was one of the first in Hungary to use the double-bundle (anatomic) anterior cruciate ligament replacement. Among others, he was the doctor of Mizo Pécs women's basketball team, Újpest fottball team, the ski and fencing National Teams, and since 2009 he is the medical director of the Emineo Private Hospital.





 **Dr. Zoltán Klemencsics, PhD**
Chief medical doctor

Chief physician, from 1988 to 1995 he worked in the sports surgery department of the National Sports Health Institute, mostly in the spine surgery department. During this time, he completed studies at major foreign institutes (Oxford, Lyon, St. Gallen, Basel, Stanford), and his special areas were the treatment of sports injuries and spinal disorders. He was the doctor of the Hungarian men's volleyball team, but in the 2000s he also dealt with screening and solving the biomechanical problems of junior footballers.

 **Attila Cziráki MD., PhD., med. Habil, FESC**
University Professor, Director of Heart Institute, Internal Medicine Specialist, Clinical Pharmacologist, Cardiology Specialist

University professor, the Director of Heart Institute, University of Pécs, Internal medicine specialist, Clinical pharmacologist, Cardiology specialist. Head of Medical Science at the National Basketball Academy. He is a member of the European Society of Cardiology (ESC) and the European Society of Echocardiography (EACVI). President of the Hungarian Arterial Stiffness Society, he served on the Scientific Advisory Board for two terms. Board member of the Echocardiography Working Group and the National Echocardiography Accreditation Committee. He presented more than 100 lectures in both Hungarian and English, at famous international, European, and global conferences. Several occasions, he was an invited as guest speaker and he chaired Congress Sessions.



 **Márton Báder** 

Former basketball player, 98-time Hungarian National Team member, the professional director of Budapesti Honvéd SE (men's basketball)

Four-time Hungarian champion and cup winner, Slovenian and Croatian champion as a player, two-time Hungarian champion and cup winner as professional director, 98-time Hungarian National Team member. He played 3 seasons in the Euroleague, 3 seasons in the EuroCup, where he won silver and bronze medals, and 7 seasons in the Adriatic League as a player for KK Cibona Zagreb, KRKA Novo Mesto and KK Szolnoki Olaj. On March 15, 2013, he received the state award of the Hungarian Silver Cross of Merit in recognition of his successful sports performance and his efforts to popularize Hungarian basketball. He is the professional director of the basketball department of Budapesti Honvéd from January 2020.



 **Dalma Iványi**

10 times Hungarian Championship winner, 134 times Basketball Player of Hungarian National Team, the Immortal of Hungarian Basketball

10 times Hungarian championship winner, 11 time Hungarian Cup holder, three times member of the Euroleague All Star team. Made her debut in WNBA in the summer of 1999 and played afterwards for Utah Starz, Phoenix Mercury and San Antonio Silver Stars. Was elected five time as the best women basketball player in Hungary. Assistant coach of NKA Universitas PEAC and Hungarian National Team.





Center for Basketball Methodology and Education

3rd INTERNATIONAL BASKETBALL CONFERENCE

16-17 January 2023, National Basketball Academy, Pécs

Science and Practice of Recovery: From In Game to Post Injury



The international basketball conference will be held in Pécs, Hungary, for the third time! The focus of the conference is on science and practice of rehabilitation and recovery. Among others, interested parties can get valuable information from the plenary presentation of **Dr. Francesco Cuzzolin**, Phd, the Head of Performance of Euroleague's team Olimpia Armani Milano, from the lectures of **Prof. Dr. Julio Calleja-González**, Msc, Ms, Phd, sport scientist at Spanish Olympic Committee, personal performance scientist of several NBA champions, Euroleague Players Association (ELPA) advisor, and **Prof. Dr. Sc. Igor Jukic**, advisor of ELPA, head of Croatian High Performance Sport Centre, as a part of the Croatian Olympic Committee, **Vladimir Bankovic**, S&C specialist who won 2 world championship gold medals with the Serbia Women's National Volleyball Team. Apart from the foreign scientists, leading experts from the field of sport science and medicine of Hungary as for example **Jámbor László** (as conditioning coach winner of the Champions League, UEFA Cup, Team World Cup and European Supercup with Ajax Amsterdam, mentor, performance development processes and Decision Support processes director) ensure the usual outstanding professional quality of the plenary sessions. In addition to all of this, the already traditional round table discussions, field presentations, and worldwide famous player-coach interviews will add color to the program.



Center for Basketball Methodology and Education 3rd INTERNATIONAL BASKETBALL CONFERENCE

PROGRAM

Science and Practice of Recovery: From in Game to Post Injury

DAY 1 - MONDAY (16 January)

8:00-8:45 Registration

8:45-9:00 Opening Session

Dr. Ádám Schmidt – Secretary of State for Sports,
Ferenc Szalay – President of the Hungarian

Basketball Federation,

Prof. Dr. Attila Miseta –

Rector of the University of Pécs

9:00-10:00 Plenary Session

Prof. Dr. Sc. Igor Jukic, PhD – Epidemiology,
Evidence based Interventions, Practical
Preventive Strategies

10:00-11:00 Educational Session

Dr. Francesco Cuzzolin, PhD – Injury Reduction
Strategies off the Court

11:00-11:15 Coffee Break

11:15-12:15 Educational Session

Dr. Francesco Cuzzolin, PhD – Injury Reduction
Strategies on the Court

12:15-13:15 Plenary Session

László Jámbor – The Winning "Formula"

13:15-14:30 Abstract Session / Lunch Break

14:30-15:30 Plenary Session

László Jámbor – The Personality of the Coach
and the Performance

15:30-16:30 Educational Session

Dr. Zsolt Knoll, PhD – What Every Coach and
Rehabilitation Professional Should Know about
the Anterior Cruciate Ligament (2022 Update)

16:30-17:00 Coffee Break

17:00-18:00 Plenary Session

Dr. Zoltán Klemencsics – The Access Training
Injuries and the Effects on Grassroot Athletes

18:00-19:30 Round Table

**Prof. Dr. Sc. Igor Jukic, PhD, Dr. Zsolt Knoll,
PhD, Dr. Francesco Cuzzolin, PhD, Vladimir
Bankovic, Márton Báder** – Availability: The
Secrets of High Performance Sport

DAY 2 - TUESDAY (17 January)

8:15-9:00 Registration

9:00-9:45 Plenary Session

Vladimir Bankovic – Re-habilitation,
Pre-habilitation, Education

9:45-10:15 Plenary Session

Mladen Jovanovic – Visual Management of
Performance Team

10:15-11:15 Plenary Session

Prof. Dr. Julio Calleja-González, Msc, Ms, PhD –
Recovery Update 2023

11:15-11:30 Coffee Break

11:30-12:30 Plenary Session

Prof. Dr. Attila Cziráki, PhD – The Importance of
on-Invasive Imaging in Sport

12:30-13:30 Plenary Session

Prof. Dr. Julio Calleja-González, Msc, Ms, PhD –
The Travel Fatigue and the Recovery

13:30-14:30 Lunch Break

14:30-15:30 Plenary Session

Neven Spahija – High Performance Team:
Coaches' Perspective

15:30-16:30 Interview Session

Prof. Dr. Sc. Igor Jukic, PhD, Neven Spahija –
Recovery in a Congested Competition Schedule

16:30-17:00 Plenary Session

Fabio Fossati – Psychological Aspects of Recovery

17:00-17:30 Coffee Break

17:30-18:30 Educational Session

**Prof. Dr. Julio Calleja-González, Msc, Ms, PhD,
Prof. Dr. Sc. Igor Jukic, PhD** – Half-time Recovery
in Basketball

18:30-19:30 Interview Session

**Prof. Dr. Sc. Igor Jukic, PhD, Dr. habil. László
Rátgéber, Neven Spahija, Dalma Iványi,
Márton Báder**

19:30 Closing

CENTER FOR BASKETBALL METHODOLOGY AND EDUCATION

According to the decision of the Hungarian Government, the Rátgéber Academy was awarded the title of the Center for Basketball Methodology and Education which started its operation on January 1, 2021. The primary goal of the Methodology Center is to offer support for talented athletes, to provide elite training and education for basketball academies at the highest possible professional level to achieve this goal, the Hungarian sports academies and the Hungarian Basketball Federation must cooperate constructively.

“In youth education, the training structure needs to be steered in a direction that meets the requirements of the 21st century. In order to achieve this goal, it is necessary to think together, to designate a common direction and path, which would enable to raise the level and quality. This requires the “gray matter” that sports academies represent! With the management of the Methodology Center a value-base must be created, guidelines must be defined that will take the complete youth education in the right direction”.

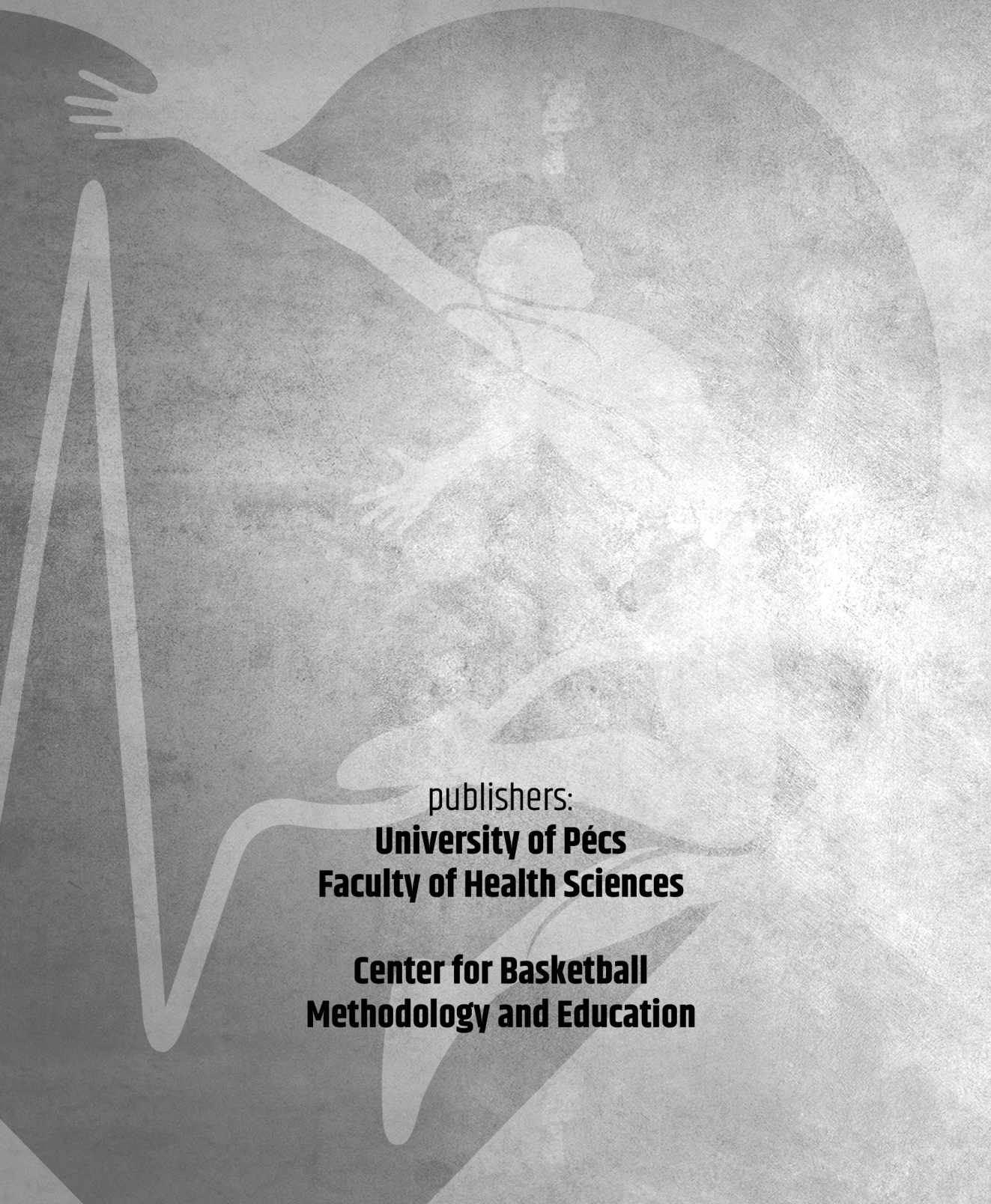
Dr. Sándor Sáfár, PhD (Project Manager, National Sports Agency of Hungary)

“We all have to work together; we need to help each other because we depend upon each other. But we should seek cooperation not only within basketball, we also have to be open to a closer relationship with the methodological centers of handball and football as well. Our task is to make product out of intellectual output! All the resources have been given to apply the accumulated theoretical knowledge into practice: not only we need to catch up with other sports nations, but we must show new ways and new directions”

Dr. László Rátgéber, PhD, habil. (director, Center for Basketball Methodology and Education).

The Methodology Center has set many goals and tasks. Among the main objectives are: providing a scientific background of sport performance and sport development, advocacy of the sports academies, establishing constructive cooperation with institutions of higher education (Hungarian

University of Sports Science, University of Debrecen, University of Pécs), sport organizations, the Hungarian Basketball Federation, and professional committees. In order to raise the level of the quality of basketball, our main tasks include to carry out sports Science research, to provide quality assurance of professional materials, to control them, to collect and provide feedback, thus to create PRODUCT FROM INTELLECTUAL OUTPUT.



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University of Pécs
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Methodology and Education