

## WORKSHOP REPORT: PHYSICAL ACTIVITY-RELATED INJURIES PREVENTION IN ADOLESCENTS. WHAT DO WE KNOW?

Piran, Slovenia, October 6, 2021

The Institute for Kinesiology Research at ZRS Koper participates in the international project *Prevention of physical activity injuries in adolescents* (PARIPRE), led by the University of Prešov, Slovakia. A total of eight partners, of which on the Slovenian side the Slovenian Sports Union and the National Institute of Public Health are also collaborators, are investigating risk factors and prevention programs to reduce injuries in 12-to-18-year-olds.

At the workshop we presented scientific background on the importance of preventive measures for different stakeholders. Altogether 79 participants from seven countries joined the workshop. The program started with opening remarks from prof. dr. Rado Pišot and prof. dr. Boštjan Šimunič from Science and Research Centre Koper, organizers of the workshop. This was followed by remarks from Vesna Marinko (Ministry of Health RS) who underlined the importance of the topic of physical activity-related injuries prevention in adolescence. Then a project presentation was given by Peter Bakalár from the University of Prešov (Slovakia).



Regular physical activity and sport is one of the most recognized determinants of health protection, particularly for the prevention of major chronic non-communicable diseases. In adolescents, physical activity and sport contribute to healthy musculo-skeletal, cardiovascular, respiratory, immune, and metabolic development and help maintain physical fitness and healthy body mass. It is also associated with several psychological and social benefits. Appropriate physical and sporting activity have no harmful effects, but there is an increased risk of injury during exercise, especially in high-intensity sports, but also in low-intensity physical activity if we are poorly prepared for it. Therefore, the prevention of physical activity and sport-related injuries and the identification of risk factors must be an integral part of the promotion of physical activity and sport. An increased risk of injury is also posed by the physical inactivity that is now prevalent in the modern sedentary lifestyle, which has been exacerbated during this COVID-19 era.

This talk was followed with the presentation of sport injuries epidemiology by prof. dr. Jari Parkkari from UKK Institute (Finland). No less than 47% of children are injured at least once in a year, with 50% of injuries occurring in sports clubs, 30% in recreational activities and 20% at school. Boys are more prone to injury than girls. Sports club membership is an underlying risk factor for hospitalization of children after injury, which must be considered as a logical cause-effect relationship. If we disregard the current situation with COVID-19 (where we can see a sharp decrease in participation in sports clubs), we have observed an increase in the number of people involved in sports clubs (in Finland from 46% in 2010 to 62% in 2016 and in Slovenia even 82% in 2019). On the other hand, the physical inactivity of children and young people (at school, at home, during leisure time) is also increasing at an extreme rate, which also affects the increase in the number of injuries during physical and sporting activity and represents a major public health problem.

Afterwards, dr. Mari Leppänen from UKK Institute (Finland) presented *Sport Injury Prevention Strategies and Measures* and a draft of *Recommendations for the prevention of physical activity-related injuries in adolescents*. The latter were discussed among various stakeholders and their comments were considered and incorporated in the final version of the recommendations that was prepared following the workshop. The recommendations were later published in a scientific journal, sent to stakeholders and are available at the webpage: [https://www.paripre.eu/wp-content/uploads/2022/02/2021\\_PARIPRE\\_Recommendations.pdf](https://www.paripre.eu/wp-content/uploads/2022/02/2021_PARIPRE_Recommendations.pdf).

Boštjan Šimunič

## POROČILO DELAVNICE: PHYSICAL ACTIVITY-RELATED INJURIES PREVENTION IN ADOLESCENTS. WHAT DO WE KNOW?

Piran, Slovenija, 6. oktober 2021

Inštitut za kineziološke raziskave ZRS Koper sodeluje v mednarodnem projektu *Physical activity-related injury prevention in adolescents* (PARIPRE), ki ga vodi univerza v Prešovu, Slovaška. Osem partnerjev, od katerih na slovenski strani sodelujeta še Športna unija Slovenije in Nacionalni inštitut za javno zdravje, proučuje dejavnike tveganja in preventivne programe zmanjševanja poškodb pri mladostnikih, starih od 12 do 18 let.

Na delavnici smo predstavili znanstvena izhodišča preventivnih ukrepov za različne deležnike preventive športnih poškodb. Delavnice se je udeležilo 79 udeležencev iz sedmih držav. Po uvodnih nagovorih prof. dr. Rada Pišota in prof. dr. Boštjana Šimuniča iz Znanstveno-raziskovalnega središča Koper je pomembnost teme poudarila Vesna Marinko z Ministrstva za zdravje. Sledila je predstavitev projekta s strani vodje izr. prof. dr. Petra Bakalárja iz univerze v Prešovu (Slovaška). Redna gibalna/športna aktivnost je med najbolj prepoznanimi dejavniki varovanja zdravja, predvsem za preprečevanje vodilnih kroničnih nenalezljivih bolezni. V mladosti gibalna/športna aktivnost prispeva k zdravemu razvoju skeletno-mišičnega, srčno-žilnega, dihalnega, imunskega in presnovnega sistema, pomaga vzdrževati telesno pripravljenost in primerno tele-



sno maso. Povezana je tudi s številnimi psihološkimi in socialnimi koristmi. Ustrezna gibalna/športna aktivnost nima škodljivih učinkov, pri ukvarjanju z njo pa se pojavi povečano tveganje za poškodbe, predvsem med visoko intenzivnimi športi in tudi med nižje intenzivnimi gibalnimi aktivnostmi, če smo slabo pripravljene nanje. Zato morata biti preprečevanje poškodb pri gibanju in športu in prepoznavanje dejavnikov tveganja sestavna dela spodbujanja gibalne/športne aktivnosti. Povečano tveganje za poškodbe pomeni tudi gibalna neaktivnost, ki je značilna za današnji prevladujoči sedentarni življenjski slog, ki se v času covida-19 še krepi.

Aktualne podatke o športnih poškodbah pri mladih je predstavil prof. dr. Jari Parkari z inštituta UKK (Finska). Kar 47 % otrok se poškoduje vsaj enkrat v letu dni, pri čemer se 50 % poškodb zgodi v športnih klubih, 30 % med prostim časom in 20 % med šolskim časom. Dečki so poškodbam bolj podvrženi kot deklice. Članstvo v športnih klubih je temeljni dejavnik tveganja za hospitalizacijo otrok po poškodbi, kar pa je treba jemati kot logično vzročno-posledično razmerje. Če odmislimo trenutne okoliščine s covidom-19 (ko beležimo velik upad vključenosti v športne klube), smo bili v zadnjih letih priča povečevanju števila vključenih v športne klube (na Finskem s 46 % v letu 2010 na 62 % v letu 2016 in v Sloveniji celo na 82 % v letu 2019), hkrati pa se izjemno povečuje tudi gibalna neaktivnost otrok in mladostnikov (v šolah, doma, v prostem času), kar tudi vpliva na povečevanje števila poškodb med gibalno/športno aktivnostjo in je velik javnozdravstveni problem.

V glavnem delu je dr. Mari Leppanen z inštituta UKK predstavila osnutek strategij in priporočil *Sport Injury Prevention Strategies and Measures in Recommendations for the prevention of physical activity-related injuries in adolescents*. Med interaktivno delavnico smo natančno pregledali vse ukrepe priporočil in jih posodobili. Po končani delavnici smo projektni partnerji naredili čistopis priporočil, jih objavili v znanstveni reviji in z njimi seznanili vse deležnike športnih poškodb. Priporočila so na voljo na spletni strani: [https://www.pariPRE.eu/wp-content/uploads/2022/02/2021\\_PARIPRE\\_Recommendations.pdf](https://www.pariPRE.eu/wp-content/uploads/2022/02/2021_PARIPRE_Recommendations.pdf).

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