

Better sleep characteristics lower the probability of having physical activity-related injuries in adolescents.

Sleep characteristics and adolescent physical activity-related injuries in sports clubs, leisure-time, and schools

INTRODUCTION

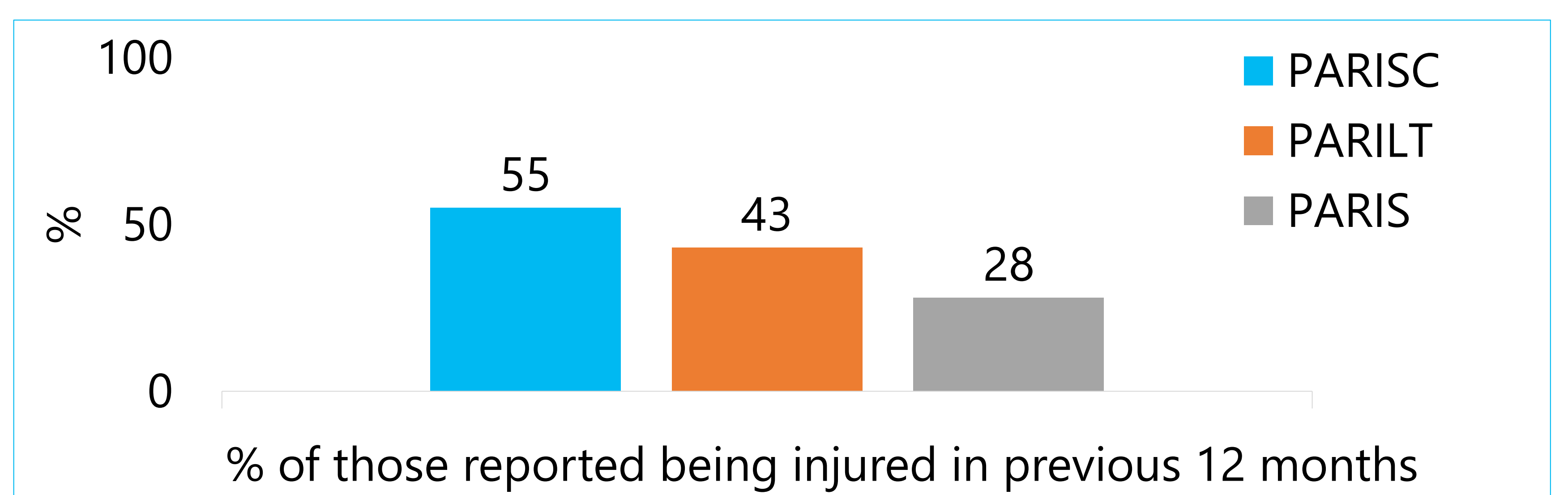
- The etiology of physical activity-related injuries (PARI) is multifactorial. Sleep is considered to play an important role in PARI etiology and further research on this topic is recommended.
- The study aimed to explore associations between sleep duration, sleep problems, and PARI among Slovak adolescents in three different settings.

METHODS

1. **Sample** n=10,163 (50.9% girls, age 10.5-18.3).
2. **Variables:**
 - **Sleep duration in schooldays and weekends**
 - **Sleep problems:**
 - falling asleep in the evening,
 - waking up at night,
 - waking up in the morning and feeling rested,
 - day sleepiness.
 - **Physical activity-related injuries in previous 12 months in (adapted from Finnish LIITU study):**
 - sports clubs (PARISC),
 - leisure-time (PARILT),
 - school (PARIS).
3. **Univariate binary logistic regression analysis.**

RESULTS

| | |
|--|-----|
| Not recommended amount of sleep – schooldays (short or long) | 40% |
| Not recommended amount of sleep – weekends (short or long) | 37% |
| Problem with falling asleep in the evening | 32% |
| Problem with waking up at night | 25% |
| Problem with waking up in the morning and feeling rested | 51% |
| Problem with day sleepiness | 51% |

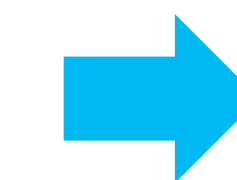


Normal sleep duration during the schooldays + no problems with falling asleep, waking up at night, and day sleepiness.



Lower probability of PARISC.

Normal and long sleep duration during the weekends.



Lower probability of PARILT and PARIS.

CONCLUSION

- The findings suggest that implementing **sleep interventions** within **PARI prevention** programs across various settings must be considered one of the key components of adolescent **physical activity promotion**.

Bakalár Peter¹, Kopčáková Jaroslava²⁻³, Vašková Monika¹, Kovalik Slančová Terézia¹, Kolarčík Peter²⁻⁴, Kostičová Michaela⁵

¹University of Prešov, Faculty of Sports, ²Pavol Jozef Šafárik University, Faculty of Medicine, ³University of Groningen, University Medical Center, ⁴Palacký University, Olomouc University Social Health Institute, ⁵Comenius University, Faculty of Medicine

FUNDING

This research was funded by the research grant 1/0179/21 of the Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic and the Slovak Academy of Sciences (VEGA), and co-funded by the research grant 622594-EPP-1-2020-1-SK-SPO-SCP from the Education, Audiovisual and Culture Executive Agency (EACEA) ERASMUS+ Sport Collaborative Partnerships Program.

