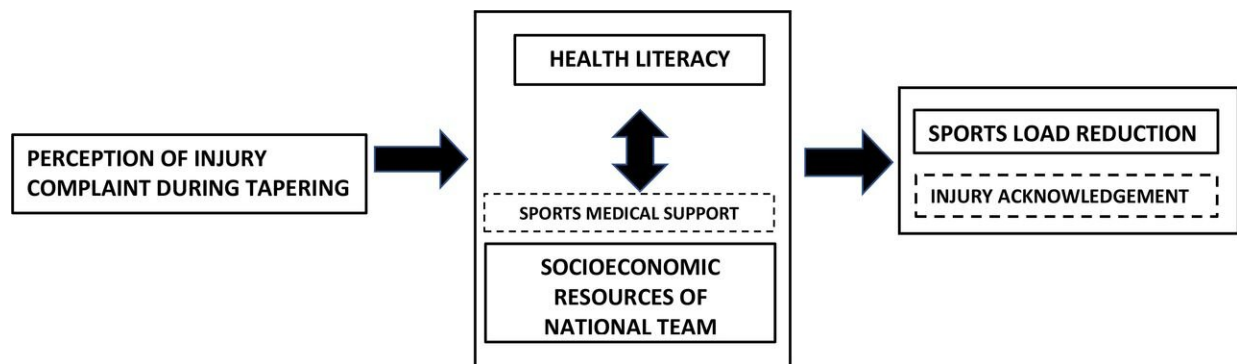


Study examines inequality in international athletics

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Theoretical model of elite athletics athletes' perception of an injury complaint during prechampionship tapering, health literacy and socioeconomic resources of the national team (sports medical support) and sports load adjustment (acknowledgement of injury). Credit: *British Journal of Sports Medicine* (2023). DOI: 10.1136/bjsports-2022-106007

Athletes from less affluent countries need more education on health to prevent injuries during hard training. But, paradoxically, more knowledge can also increase the risk of injury if there is no access to medically trained expertise. This is the conclusion of researchers at Linköping University, Sweden, in a new study on inequality in athletics.

"There were astronomical differences in support resources between juniors from different parts of the world. European competitors had

entire medical teams and computer-based analysis programs to aid them, while the main support for young East African competitors often consisted of a family member or teacher from their home village," says Professor Toomas Timpka at the Department of Health, Medicine and Caring Sciences at Linköping University.

The researchers have conducted studies among juniors and seniors who participated in two international athletics championships at elite level in 2017. In the final study recently published in the *British Journal of Sports Medicine*, 780 athletes from different countries were asked if they had experienced symptoms of injury during their preparations and, in that case, if this had led them to adapt their training.

They were also asked about their ability to independently acquire and use health knowledge to prevent injuries—something the researchers term health literacy. This is an area of which little is known.

The researchers also used the UN's annual development index, which ranks countries based on a number of factors, including education and income levels. This was used to estimate the medical support resources of the national teams. Taking the development index into account is new for research, according to Toomas Timpka.

The differences in knowledge between adults and young people were shown to be great. Only 13 percent of the juniors were judged to have basic health literacy, compared with 41 percent of the adults. Regardless of age, athletes from countries with a high development index were more knowledgeable than competitors from other parts of the world.

But the results also show that good individual knowledge is not all that matters.

When comparing athletes within a well-resourced national team, it was

certainly shown to be more likely that those with good knowledge would reduce their training when feeling an injury than compatriots with less knowledge.

But in more resource-poor national teams, such as the Kenyan team, the opposite was true. There, a knowledgeable person had a lower probability of reducing training compared to a less knowledgeable compatriot.

The researchers conclude that knowledge in individual athletes is not enough. At worst, it can even cause them to overestimate their ability to make the correct judgment. What makes a difference is whether they have access to medically trained people for advice and support. But here, inequality is great between countries.

In order to address the inequality in health literacy among [young people](#), Toomas Timpka believes that World Athletics, the international athletics federation, should cooperate with the UN Development Program. Then, everyone who dedicates themselves to athletics could get a school education that lives up to the global sustainability goals.

Doing something about the unfair distribution of support resources is more difficult. Direct [financial contributions](#) unfortunately risk disappearing through corruption, according to Toomas Timpka. One possibility could be that the richer associations, through World Athletics, share their personnel and technical resources with less fortunate athletes ahead of major championships.

The researchers have not investigated the consequences of the differences in support for the competitive results of the athletes. This will be followed up in connection with the World Athletics Championships in Budapest in the summer of 2023.

More information: Toomas Timpka et al, Injury acknowledgement by reduction of sports load in world-leading athletics (track and field) athletes varies with their musculoskeletal health literacy and the socioeconomic environment, *British Journal of Sports Medicine* (2023).
[DOI: 10.1136/bjsports-2022-106007](https://doi.org/10.1136/bjsports-2022-106007)

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