How is sports injury prediction perceived by elite sports stakeholders? An online survey during the Munich 2022 European Championships.

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INTRODUCTION:
The development of artificial intelligence and machine learning techniques may enable measuring an individual athlete's own risk of injury occurrence and can also be used to further investigate the relative importance of risk factors related to sports injuries. In the near future, elite stakeholders (athletes, coaches, health professionals) could have the opportunity to access to the injury risk estimation provided by predictive algorithms in order to manage training and injury risk as an additional injury risk reduction measure. The aim of this study was to explore the perception and beliefs of elite sports stakeholders towards the use of injury prediction as an injury risk reduction measure.

METHODS:
During the 2022 European Championships in Munich (Germany), a multi-sports event, all registered athletes, coaches and health professionals from the nine sports disciplines (i.e., athletics, beach volleyball, canoe sprint, cycling, gymnastics, rowing, sports climbing, table tennis, triathlon) were asked to complete an online questionnaire on their perception and beliefs of the use of injury prediction as an injury risk reduction measure. The interest, intent to use, perceived help, potential stress and dissemination scores were assessed using an analogic scale from 0 (not at all) to 100 (totally).

RESULTS:
There were 79 participants: 35 athletes, 14 coaches, 29 health professionals, from 23 countries and from 8 sports disciplines (54 athletics, 8 canoe sprint, 4 cycling, 2 gymnastics, 2 rowing, 2 sports climbing, 5 table tennis, 1 triathlon). They all expressed a high level of agreement regarding the interest (86±15), intent to use (84±16), and perceived help (85±16) of injury prediction as an injury risk reduction measure. Regarding potential stress induced by injury prediction, the level of agreement was moderate (41±33), and there was an important inter-individual variability in each stakeholder group (athletes, coaches, health professionals) with scores ranging from 0 to 100. They expressed a high level of agreement regarding the dissemination for athletes (85±17), coaches (84±20) and health professionals (86±18).

CONCLUSION:
This innovative study shows that regardless of the stakeholder group (athletes, coaches, health professionals), there was a high level of acceptance of injury prediction as injury risk reduction measure. In contrast, potential stress induced by injury prediction seems to be more nuanced and affected by individual factors. Our results provide new insights into how elite stakeholders may respond and apply to this preventive measure. This is an important step for properly defining implementation strategies and may have implications for future research and practice in the use of sports clinical prediction modelling as an injury risk reduction measure in elite sports field.

Topic: **Sport Technology**

Presentation **Poster**

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