

**Participants** 510 elite- and sub-elite indoor sport athletes with at least one previous LAS injury within the preceding 24 months were enrolled; 480 completed the trial.

**Intervention** Spraino<sup>®</sup>; a low-friction patch applied to the lateral side of the shoe.

**Main Outcome Measurements** The trial was explorative with evenly-valued outcome measures related to incidence and severity of self-reported LAS injuries, pain in the ankle, fear of injury and intervention-related adverse events.

**Results** A total of 151 LAS injuries were reported within the trial period, of which 96 were categorized as non-contact injuries. A total of 50 injuries were severe. All metrics favoured Spraino<sup>®</sup> with computed incidence rate ratios of 0.87 (95% CI, 0.62–1.23) for any LAS injury, 0.64 (95% CI, 0.42–0.97) for non-contact LAS injuries, and 0.41 (95% CI, 0.19–0.89) for severe non-contact LAS injuries. The relative time-loss for the total number of injuries was 0.65 (95% CI, 0.45–0.93). Fear-of-injury and ankle pain was also lower in the Spraino<sup>®</sup> group. Six participants reported minor harms due to slipping on the floor because of Spraino<sup>®</sup>.

**Conclusions** Spraino<sup>®</sup> was found to be effective and safe when used to prevent LAS injuries in indoor sports. Findings should be replicated in a confirmatory RCT.

**Trial registration** ClinicalTrials.gov: NCT03311490

**Funding** Innovation Fund Denmark (7038–00087A)

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#### FLOORBALL PARTICIPATION, INJURY PREVENTION EXPECTATIONS, INJURY RISK PERCEPTIONS AND HEALTH PROBLEMS IN SWEDISH YOUTH PLAYERS AT THE START OF A SEASON

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**Background** Floorball is a popular sport among Scandinavian youth. However, insufficient data hinders the development of focused injury prevention strategies in floorball.

**Objective** Describe the motivations for floorball participation as well as injury prevention expectations, injury risk perceptions and the prevalence of health problems in youth players at the beginning of the floorball season.

**Design** Cross-sectional survey at baseline (2017–2018 season).

**Setting** Swedish youth floorball.

**Patients (or Participants)** 471 (140 female, 331 male) players.

**Main Outcome Measurements** Floorball participation, injury prevention/risk perceptions, health problems

**Results** Female and male players were on average 13.7 (±1.5) and 13.3 (±1.0) years old, and had played floorball for 4.9 (±2.3) years. Most (51% female vs 55% male) players trained/played floorball 3 times/week; a majority (69% female vs 76% of male) thought their training volume was high. Fractures (84% female, 90% male) and eye injuries (90% female, 83% male) were perceived to be most severe. 93% believed sports injuries could be prevented, however, 74% thought they would not get injured. 85% (88% male

vs 78% female) of the players always used protective eyewear.

Females felt more stress (median=4, IQR 2–6) than males (median=2, IQR 0–4, P=0.000), but reported better well-being (female median=3, IQR 1–5) vs (male median=2, IQR 0–3, P=0.000). No difference in sleep between females (median=3, IQR 1–5) and males, (median=3, IQR 0–3, n.s.) was observed. 33% (38% female vs 30% male) youth players were unable to fully participate in floorball due to health problems at the start of the season, and 65% of these were injuries. 28% (32% female vs 26% male) reported pain.

**Conclusions** This study provides insight into youth players' health status leading into the season; one in three reported a health problem and if these are untreated, there is a potential for more severe and long-term adverse health consequences. Safe sports programmes should be a priority.

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#### WE HAVE THE INJURY PREVENTION PROGRAMME, BUT HOW WELL DO YOUTH USE IT?

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**Background** Over the past two decades, sports medicine research has developed innovative and proven interventions for injury prevention in athletes. Intervention effectiveness of any injury prevention exercise programme (IPEP) is influenced by both utilisation and exercise fidelity, but this has rarely been evaluated in previous randomised controlled trials (RCT). **Objective** To describe the exercise fidelity and utilisation fidelity of the Knee Control IPEP in youth floorball alongside an intervention RCT.

**Design** Observation study, 26-week season.

**Setting** Swedish youth floorball.

**Patients (or Participants)** 20 teams (8 female, 12 males) aged 12–17 years.

**Interventions (or Assessment of Risk Factors)** Knee Control IPEP.

**Main Outcome Measurements** Exercise fidelity and program utilisation fidelity.

**Results** Of the 535 individual Knee Control exercises observed, 76% were performed by males; and 58% exercises were performed correctly. Exercise fidelity was greater in females (71% vs 54%, P=0.001). No difference in exercise fidelity during the first (57%) and second (59%) half of the season. The full Knee Control IPEP (7 exercises x 3 sets) was completed as prescribed in only four out of 31 team training sessions observed. Utilisation fidelity did not differ between sexes and the average number of completed exercises performed was 11(±5). Males performed more exercises with a higher level of difficulty (n=247, 93 and 59 for levels A, B and C+D, respectively) compared to females (n=88, 26, and 7, P=0.021). 33% of the coaches perceived that they had good knowledge about injury prevention, only 33% believed regular IPEP use could decrease injury risk.