

Conclusions Recreational surfers reveal a considerable injury frequency per 1000 h of exposure, independent of gender, surfer position or side. The greater incidence of lower-limb and shoulder injuries must be underlined, as well as the fact that collision/direct contact represents more than 50% of the injury mechanisms.

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DO PHYSICAL CONTACTS AND HEAD CONTACTS DIFFER IN FEMALE ICE HOCKEY AND RINGETTE? A VIDEO-ANALYSIS STUDY

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Background A Canadian study reports the highest concussion rates in ringette and ice hockey, compared to other female team sports. Although high-intensity physical contacts (PC) are prohibited in both sports, player-to-player PCs accounted for 58–64% of injuries.

Objective To compare incidence rates (IR) of in-game PCs, head contacts (HC), and suspected injuries in female varsity ice hockey and ringette.

Design Cross-sectional.

Setting Canadian ice hockey arenas.

Participants Female university ringette and ice hockey tournament/playoff games in the 2018–2019/2019–2020 seasons.

Assessment of Risk Factors Game video-recordings were analyzed using Dartfish video-analysis software. Validated criteria were used to assess PC intensity (level 1–5), PC type (e.g., trunk contact, push), HC type (i.e., HC1=direct player-to-player, HC2=indirect environmental), and suspected injury (i.e., concussion, musculoskeletal).

Main Outcome Measurements Univariate Poisson regression analyses (adjusted for cluster by team, offset by game-minutes) was used to estimate PC and HC IRs and incidence rate ratios (IRRs, 95% confidence intervals) comparing sports.

Results Analyses of 36 team-games (n=18 ringette, n=18 ice hockey) revealed that ringette had a 19% lower rate of PCs (IR=310.38 contacts/100 team-minutes, 95%CI;285.40–337.54) than ice hockey (IR=382.48 contacts/100 team-minutes, 95%CI;356.80–410.00) (IRR=0.81, 95%CI;0.73–0.90). Ringette had a 68% higher rate (IRR=1.68, 95% CI:1.22–2.31) of total HCs (IR=17.92 contacts/100 team-minutes, 95%CI;14.71–21.83) compared to ice hockey (IR=10.67 contacts/100 team-minutes, 95%CI;8.28–13.75). Ringette had a 3-fold higher rate (IRR=3.11, 95%CI;1.13–8.60) of suspected injury (IR=1.46 HCs/100 team-minutes, 95%CI;0.72–2.93) compared to ice hockey (IR=0.47 HCs/100 team-minutes, 95%CI;0.22–1.00).

Conclusions This study demonstrated a lower rate of PCs in ringette than female ice hockey. However, ringette had a significantly higher rate of HCs and suspected injuries than ice

hockey. These findings can inform future research targeting prevention strategies in both sports.

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INJURY AND ILLNESS EPIDEMIOLOGY DURING THE 53RD FIS NORDIC WORLD SKI CHAMPIONSHIPS 2021 IN OBERSTDORF: A PROSPECTIVE COHORT STUDY

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Background Nordic skiing consist of cross-country skiing (CC), ski jumping (SJ) and Nordic combined (NC). Only little injury and illness data from elite competitions in these sports are currently available.

Objective To analyse injuries and illnesses during the FIS Nordic World Ski Championships 2021.

Design Prospective cohort study.

Setting FIS Nordic World Ski Championships in Oberstdorf, Germany, 23rd February to 7th March 2021.

Participants All registered athletes (n=663).

Main Outcome Measure Daily report of newly incurred injuries and illnesses according to the respective IOC consensus statement (2020) by the medical teams.

Results About half of the nations (32/65), covering 51.6% of the registered athletes (n=342), participated in the study and returned 88.4% of the daily report forms. During the 12 championships days, 16 injuries were reported (incidence rate: 4.6%, 95%CI 2.4 to 6.9%), 12 in CC and 2 injuries each in NC and SJ. Six injuries affected the upper and 6 the lower extremities, 2 the lumbar-sacral spine/buttock and 2 the head. Most injuries occurred suddenly (n=13), 3 gradually. Eleven injuries (69%) were non-time-loss, Four injuries resulted in an estimated time-loss of 3–7 days, 1 in an estimated time-loss of 21 days (fracture of metacarpal bone).

Out of the 16 illnesses (incidence rate: 4.6%, 95%CI 2.4 to 6.9%), 11 were reported in CC, 3 in NC and 2 in SJ. Regarding etiology, 5 illnesses were environmental (4 exercise-related and 1 non-exercise related), 4 infectious, 3 allergic, 2 metabolic/nutritional, 1 degenerative/chronic and 1 unknown. Most illness occurred suddenly (n=10), 4 gradually and 2 had a mixed mode of onset. Twelve illnesses (75%) were non-time-loss. Three illnesses resulted in an estimated time-loss of 3 days, 1 in an estimated time-loss of 20 days (COVID-19 infection).

Conclusion The injuries or illnesses incidence rate was lower than in Winter Olympic Games. The low illness rate might be due to COVID-19 hygiene measures.

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ABSTRACT WITHDRAWN