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.

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.


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 (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.

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

Emily E Heming, 1Alexandra J Sobry, 1Alexis L Cairo, 1Rylen A Williamson, 1Ash T Kolstad, 2,3,4,5,6,7Carolyn A Emery, 1Sport Injury Prevention Research Centre, Faculty of Kinesiology, University of Calgary, Calgary, Canada; 1Alberta Children’s Hospital Research Institute, University of Calgary, Calgary, Canada; 2O’Brien Institute for Public Health, University of Calgary, Calgary, Canada; 3Hotchkiss Brain Institute, University of Calgary, Calgary, Canada; 4McCaig Institute for Bone and Joint Health, University of Calgary, Calgary, Canada; 5Community Health Sciences, Cumming School of Medicine, University of Calgary, Calgary, Canada; 6Department of Paediatrics, Cumming School of Medicine, University of Calgary, Calgary, Canada.

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

Karsten Hollander, 2Kastner Tom, 1Welth Moritz, 1Disch Alexander, 1Porzing Florian, 2Wolfarth Bernd, 1Eduard Pascal, 1Junge Astrid. 1MSh Medical School Hamburg, Hamburg, Germany; 2Institute for Applied Training Science, Leipzig, Germany; 1University of Bonn, Bonn, Germany; 1University Medicine ‘Carl Gustav Carus’ at the TU Dresden, Dresden, Germany; 6Gemeinschaftspraxis Drs. med. Porzing and Köberle, Fischen, Germany; 6Charité – Universitätsmedizin Berlin and Humboldt-Universität zu Berlin, Berlin, Germany; 7University Jean Monnet, Saint Etienne, France; 6University Hospital of Saint-Etienne, Saint-Etienne, France; 6Swiss Concussion Center, Schulthess Klinik, Zürich, Germany.

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 3–7 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.

ABSTRACT WITHDRAWN