

Introduction: Acute illness presents a significant health burden to athletes, including training interference, impaired performance, time-loss from competition and increased subsequent injury risk. Although most youth participate in sport at recreational level, illness epidemiology in this population during a season or competition has not been well studied to direct prevention initiatives. We aim to provide a first detail profile of illness and illness symptoms by sex in Swedish youth floorball players during one season.

Methods: This prospective cohort study was part of a Sport Without Injury ProgrammE cluster randomised controlled trial in floorball evaluating the efficacy of the Knee Control injury prevention exercise programme. Weekly illness data were collected from youth players during the 2017-2018 season (26 weeks) using the Oslo Sports Trauma Research Center questionnaire on health problems. Illness symptoms were grouped into clusters according to the 2020 International Olympic Committee consensus recommendations. Sex differences in average weekly illness prevalence was compared with a prevalence rate ratio and corresponding 95% CI, and proportion of reported illness symptoms with the chi-square test.

Results: The mean age for 329 male and 142 female players was 13.3 (SD 1.0) and 13.7(SD 1.5) years, respectively. The mean number of weekly reports per player was 14.4(SD 7.8) (13.5(SD 8.1) males vs 16.3 (SD 6.8) females). 61% of players (60% males vs 64% females) reported at least one illness week during the season. The average weekly illness prevalence was 12%(95% CI 10.8-12.3%) for all players, and slightly higher in females (13%, 95% CI 11.6-14.3%) than males (11%, 95% CI 9.9-11.7%), prevalence rate ratio 1.20(95% CI 1.05-1.37, $p=0.009$). 49%(53% males, 43% females) of illness reports indicated time-loss from sport. Illness prevalence was highest in calendar weeks 4-7 (peak winter weeks) and ranged from 15%-18%(20%-23% females vs 12%-17% males) during this period. Upper/lower respiratory symptoms (fever (30%), sore throat (16%) and cough (14%) were common). More females (16% vs 3% males, $p<0.001$) reported difficulty of breathing/tight airways. 7% females and no males reported fainting.

Discussion: Two third of players reported at least one illness. Flu-like symptoms dominated the season. Athletes, coaches, parents and support personnel need to be aware of risk of infections and educated about risk mitigation of viral infections. Improved awareness of self-monitoring of respiratory symptoms could help reduce the risk of spreading the infection to team members.

Conflict of interest statement: My co-authors and I acknowledge that we have no conflict of interest of relevance to the submission of this abstract.

<http://dx.doi.org/10.1016/j.jsams.2021.09.053>

S120

Effects of classroom-based active breaks on cognition, sitting and on-task behaviour in children with intellectual disability

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Objective: Classroom-based active breaks can help typically developing children to reduce prolonged sitting time, increase physical activity, and improve cognitive functions and on-task behavior. Yet, this approach has not been tested in children with intellectual disability, although this population are insufficiently active and at a higher risk of obesity compared to typically developing children. Hence, this study aimed to test the effects of a 5-week active break intervention on cognitive functions, sedentary patterns, and on-task behavior in schoolchildren with intellectual disability.

Method: We recruited twenty-four children, aged between 8 and 12 years (37.5% girls), from two schools. Children's cognitive functions (response inhibition, lapses of attention, interference and working memory) were measured at baseline and trial end using computer-based tests. Sitting, standing and movement patterns were assessed with inclinometers during class/school periods, at baseline, mid-trial, and end of trial. On-task behavior was directly observed in the classroom, before and after active breaks. Linear mixed models were used to investigate the intervention effects on cognitive functions and sedentary patterns. Generalised linear mixed models were used to analyse on-task behaviour data. Teachers' experience was captured using one-on-one interviews.

Results: A significant time \times group interaction was found for working memory favouring the intervention group ($B = 11.56$, 95% confidence interval [1.92, 21.21]). No significant effects were found in relation to the other measures of children's cognition or on-task behaviour. Relative to the control group, the intervention group showed significant positive changes in stepping time (+25 min) and step count (+1913 steps), and significant negative changes in time spent in sitting bouts greater than 5 mins (-60 mins) or greater than 20 min (-73 mins) from baseline to mid-trial; similar significant differences were also noted by the end of trial. Teachers indicated that active breaks are feasible to implement, although adaptations may be needed to cater for children's specific needs.

Discussion: Classroom-based active breaks are feasible to implement in the real school environment and can contribute to increase physical activity and reduce sedentary behaviour in children with intellectual disability and might also benefit their working memory. This study is the first to have tested the effects of classroom-based active breaks in this population. Further research is required to clarify the effects on cognitive functions and whether this strategy has other benefits in children with intellectual disability.

Conflict of interest statement: J.S. declares that she has a potential conflict of interest as her husband established a business to manufacture height-adjustable desks for schools in 2017. However, she was not involved in the data analysis. N.R. currently receives funding from the Moose Foundation, Victorian Department of Education and Training, MECCA Brands, Wenig Family, Geelong Community Foundation, and Grace and Emilio Foundation to conduct research in the field of neurodevelopmental disorders and inclusion. N.R. also receives funding from the Ferrero Group Australia as part of its Kinder + Sport pillar of Corporate Social Responsibility initiatives to promote active lifestyles among young people. N.R. has previously received donations from Vic Health and Bus Association Victoria; and previous speaker honorarium from Novartis (2002), Pfizer (2006) and Nutricia (2007); and is a Director of the Amaze Board (Autism Victoria). N.R. has also received funding from the Australian National Disability Insurance Agency. None of the companies or organisational bodies listed above had a role in this research including the data collection and analysis, and/or the interpretation of results; in writing of this abstract or the manuscript; and/or in the decision to submit the article for publication. The other authors declare no

conflicts of interest. This research was funded by the Department of Education and Training, State Government of Victoria. The funders had no role in the design of the study; in the data collection and analyses, and/or the interpretation of data; in the writing of the abstract/manuscript, or in the decision to publish the results.

<http://dx.doi.org/10.1016/j.jsams.2021.09.054>

S121

Netball injuries in Australia: A review of insurance data from 2011 – 2019

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Background: Netball has maintained a reputation as a high-risk sport for injuries. Understanding netball injuries and how these may change over time can help evaluate existing injury prevention strategies, while providing information to support future efforts. This study provides a longitudinal evaluation of Australian netball injuries via a national register of insurance claims.

Methods: Insurance records for netball player insurance claims in Australia from 2011 to 2019 were obtained. The age, date, activity (i.e. match/training), anatomical location, surface/weather conditions, and the quarter of injury were extracted. Anatomical location and type of injury were coded using OSICS-10, and reported as frequencies and proportions of total injuries. The relative odds (RO) (\pm 95% confidence intervals) of claims being made within descriptive categories (i.e. age, quarter, court setting, court type, activity type and weather) across anatomical injury locations and types were calculated.

Results: 12,205 injuries were identified. The majority of claims were for knee (n=5,006; 41.0%), ankle (n=3,875; 31.7%) and wrist/hand (n=1,127; 9.2%) injuries. Joint injuries (n=7,017; 57.5%) and fractures (n=1,788; 14.6%) were the most common injury types. For anatomical location and type together, knee and ankle joint injuries were the most common (n=4,027; 33.2% and n=2,618; 21.6%, respectively), followed by wrist fractures (n=830; 6.8%) and ankle tendon (n=750; 6.2%) injuries. The proportion of injuries across anatomical location and type remained stable over time. Knee and joint injuries had a higher probability of coming from 15-17 (RO=1.043 [1.018,1.068] and RO=1.036 [1.018,1.054], respectively) and 18-24 (RO=1.034 [1.010,1.059] and RO=1.052 [1.034,1.070], respectively) year age groups. Lower leg (e.g. calf) injuries had a higher probability of occurring in the 35-44 year age group (RO=1.453 [1.315,1.601]). Head injuries had a higher probability of a concrete court description (RO=1.135 [1.013,1.266]) and coming from the 10-14 year age group (RO=1.136 [1.008,1.274]).

Discussion: The prominence of knee and ankle joint injuries suggests national netball injury prevention strategies should remain focused on this area. Certain injuries were more likely to include specific descriptors (i.e. knee joint injuries in 15-24 year olds; lower leg injuries in 35-44 year olds; head injuries in 10-14 year olds and on concrete courts). Tailoring injury prevention strategies towards these may be an impactful way to reduce the nation-wide netball injury burden.

Conflict of interest statement: My co-authors and I acknowledge that we have no conflict of interest relevant to the submission of this abstract.

<http://dx.doi.org/10.1016/j.jsams.2021.09.055>

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Leveraging physical activity to engage men in mental health promotion: Informing future directions for lifestyle interventions

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Background: Men's mental health promotion presents unique challenges and opportunities that demand novel approaches to prevention, treatment, and management. Community-based lifestyle interventions targeted at healthy behaviour change (e.g., physical activity) have been identified as a promising avenue to engage men in mental health promotion as these settings may reduce barriers to help-seeking. However, research is needed to identify strategies for designing and delivering relevant intervention content that supports men's mental health. The aim of this study was to develop intervention content and distil recommendations for the development of gender-tailored interventions that engage men in mental health promotion.

Methods: This study included an iterative multi-phase participatory design process with Australian men (18+ years) and stakeholders with frontline experience working in men's health. In Phase 1, five focus groups (n=43 men; 16 stakeholders) were conducted as part of a pre-design consultation process to examine men's experiences and perspectives of mental health promotion, and the role that physical activity may play. In Phase 2, a sub-sample of participants (n=4 men; 2 stakeholders) attended a generative design workshop where ideas, insights and concepts identified during Phase 1 were further explored to inform intervention design and development. In Phase 3, intervention content and activities were developed and a sample of men (n=21) who registered to participate in a lifestyle intervention were invited to provide feedback on the prototypes during a one-on-one semi-structured telephone interview.

Results: Inductive thematic analysis identified two overarching themes and related subthemes from the participatory design process; (1) Communicating mental health and well-being, revealing acceptable language and approaches for discussing mental health with men including the use of colloquial masculine language, analogy and association, and strength-based calls-to-action, and (2) Intervention content and activities, detailing participant generated intervention content and activities designed to create buy-in and foster spaces for open frank discussions, target multiple behaviours (e.g., physical activity and mental health) through action-oriented approaches, and include opportunities for personalisation and autonomy.

Discussion: As emergent programs and services are developed to augment traditional clinical services, it is imperative that evidence-based strategies are utilised that engage and retain men in mental health promotion. Findings provide vital clues for how men's interest in sport and physical activity can be leveraged to directly and indirectly engage men in mental health promotion. These findings have direct relevance to community programming and may be embedded within existing interventions or used to inform new mental health promotion programs for men.

Conflict of interest statement: My co-authors and I acknowledge that we have no conflict of interest of relevance to the submission of this abstract.

<http://dx.doi.org/10.1016/j.jsams.2021.09.056>