football leagues. Return to football after such a long break without organized team training might increase the rate of injuries.
Objective To investigate the effectiveness of a home-based injury prevention program (IPP) on reducing injuries in semi-professional football players.
Design Prospective cohort study based on a randomized controlled trial.
Setting Iranian semi-professional male football players.
Participants A total of 178 players from 11 clubs participated in study. From the total of 178 subjects (90 subjects in the intervention group and 88 in control group), 10 subjects dropped out due to a positive Covid-19 test, leaving 87 subjects in the intervention group and 81 in the control group for the final analysis.
Interventions The IPP consisted of 8 weeks home training program with focus on the most common injury locations. The IPP was addressed strength, mobility and balance via neuromuscular and body-weight training with no equipment.
Main Outcome Measurements Non-contact injury rate in the remaining season(8 weeks), trainng and competition exposure, compliance with the IPP.
Results Player compliance with the IPP was very good (94%). Exposure data were comparable between groups. Pooled estimates for total (training and match) incidence per 1000 h was 7.8 for the intervention group and 15.9 for control group. A lower proportion of players in the intervention group experienced injuries (29% [27 of 87]) compared with the control group (75% [61 of 81]; relative risk [RR], 0.41; 95% confidence interval [CI], 0.29–0.61; p<0.001).
Conclusions A home-based, unsupervised IPP was shown to be effective in reducing the number of injuries in semi-professional male football players after the Covid-19 break. This indicates that going back to training and match play without accompanying IPP cannot be regarded optimal.

437 THE EFFECTIVENESS OF EXERCISE INTERVENTIONS TO PREVENT SHOULDER INJURIES IN ATHLETES: A SYSTEMATIC REVIEW AND META-ANALYSIS

Johannes JW Swart, Nina Myburg, Olivier Benita. *The Wits-JBI Centre for Evidenced-Based Practice: a Joanna Briggs Institute Centre of Excellence, Pretoria, South Africa*

10.1136/bjsports-2021-IOC.401

Background The literature supports exercise to avert injuries in the lower extremity and injuries in general. Nevertheless, the utilisation of exercise strategies to prevent sports-related shoulder injuries remain unproven. This systematic review's primary aim is to evaluate the effectiveness of exercise interventions to prevent shoulder injuries in athletes.
Methods Twelve (12) databases were searched from inception up until July 2021. The search identified nineteen (19) eligible studies that were included and critically appraised. Data extraction and synthesis followed the JBI Reviewer's Manual for Systematic Reviews of Effectiveness and PRISMA guidelines. The data was synthesised utilising the JBI SUMARI to produce several meta-analyses.
Results The pooled results indicated a statistically significant result with moderate heterogeneity in favour of the application of exercise interventions to prevent shoulder injuries [0.73 (0.62 – 0.87) RR, 95% CI, P = 0]. An analysis of upper extremity injury shows a greater effect but with substantial heterogeneity [0.60 (0.52 - 0.68) RR, 95% CI, P = 0.001]. Heterogeneity was fully resolved with the removal of poor methodological studies and reveals a larger statistically significant effect [0.51 (0.36 - 0.71) RR, 95% CI, P = 0.002]. Subgroup analysis revealed a slightly greater effect for acute shoulder injuries [0.75 (0.58 – 0.96) RR, 95% CI, P = 0.024] compared to overuse injuries [0.75 (0.58 – 0.96) RR, 95% CI, P = 0.05]. Shoulder-specific programmes showed a statistically significant but inferior effect [0.80 (0.68 - 0.95) RR, 95% CI, P = 0.01] compared to general programmes [0.52 (0.35 - 0.76) RR, 95% CI, P = 0.001].
Conclusion This systematic review with meta-analysis supports and advocates for the use of exercise interventions to prevent shoulder injuries in sport. The programmes utilised can prevent both acute and overuse shoulder injuries. Exercise interventions designed to address the shoulder specifically were not superior to programmes targeting the shoulder incidentally.

438 DOES A PEER TO PEER LEARNING TECHNOLOGY INTEGRATED WORKSHOP FACILITATE NEUROMUSCULAR TRAINING INJURY PREVENTION PROGRAM COACH LEARNING?

[1,2]Larissa M Taddei, [2]Larry Katz, [1,2]Carla van den Berg, [1,2]Anu M Räisänen, [2]S Nicole Culos-Reed, [1,2,3,4,5,6]Carolyn Emery, [1,2,3,6,7]Kati Pasanen. *[1]Sport Injury Prevention Research Centre, Faculty of Kinesiology, University of Calgary, Calgary, Canada; [2]Faculty of Kinesiology, University of Calgary, Calgary, Canada; [3]Alberta Children's Hospital Research Institute, University of Calgary, Calgary, Canada; [4]Department of Community Health Sciences, Cumming School of Medicine, University of Calgary, Calgary, Canada; [5]Department of Pediatrics, Cumming School of Medicine, University of Calgary, Calgary, Canada; [6]McCaig Institute for Bone and Joint Health, University of Calgary, Calgary, Canada; [7]Tampere Research Center of Sport Medicine, UKK Institute, Tampere, Finland*

10.1136/bjsports-2021-IOC.402

Background Workshops are used to educate coaches on Neuromuscular Training (NMT) warm-ups to reduce the risk of youth sport injury. Currently, there is no research assessing different learning strategies and its influence on coaches' self-efficacy and knowledge after attending a workshop.
Objective To evaluate whether a peer-to-peer (P2P) learning technology integrated workshop, improved coaches' self-efficacy and ability to identify NMT exercise errors compared to a standard workshop.
Design Randomized controlled trial.
Setting Youth soccer clubs in Calgary, Alberta, Canada.
Participants Eighty-five recreational youth soccer coaches.
Intervention Coaches within each club randomly attended one of two workshops offered to learn a NMT warm-up: the intervention workshop (technology-integrated instruction), or control workshop (standard instruction).
Main Outcome Measures At the end of the workshop, the soccer NMT warm-up exercise test, a video-based test where coaches identify common NMT exercise errors, was completed. At the beginning and end of the workshop, the soccer NMT warm-up self-efficacy scale was completed to assess coaches' self-efficacy change in their ability to identify NMT exercises errors on a 7-point Likert scale.