action self-efficacy, coping self-efficacy, outcome expectancies, action planning, coping planning. Likert scale responses were aggregated into BF-scores ranging from 0.14-1, worst-best, for each domain, and analyzed using t-test.

Results Fifty-eight handball coaches were included; IG: n = 35, mean age 42.6 years, 34.3% female, CG: n = 23, mean age 42.3 years, 26.1% female. The IG improved significantly ($p<0.05$) in all BFs from season start to immediately after workshop (mean difference range of BF-scores 0.6 to 0.11). At midseason both groups had deteriorated in all BFs compared to season start (mean difference range of BF-scores 0.01 to 0.09), with no significant between-group differences.

Conclusion Adding an onsite strategy to an online implementation strategy of an IPEP had no additional effect on handball coachers' behavioral factors from baseline to midseason, compared to an online-only strategy.

18 THE HAPPY HYBRID EFFECTIVENESS-IMPLEMENTATION CLUSTER-RANDOMISED TRIAL: COMPARISON OF TWO STRATEGIES TO IMPLEMENT AN INJURY PREVENTION EXERCISE PROGRAM IN YOUTH HANDBALL

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Introduction Injury prevention exercise programs (IPEPs) are insufficiently implemented in practice. We hypothesized that a combination of an online and onsite implementation strategy would be superior to an online-only strategy in enhancing adherence to an injury prevention exercise program (IPEP), and in reducing shoulder, knee and ankle injury risk in youth handball players over a handball season.

Materials and Methods In this 30-week hybrid effectiveness-implementation cluster-randomized study, 20 youth handball clubs were assigned to an online and onsite strategy (workshop utilizing the Health Action Process Approach [HAPA] behavior change model and health service provider [HSP] support) or an online-only strategy (control group). The primary implementation outcome was coach-reported adherence, measured as the average IPEP team usage over 30 weeks (weekly exercise usage range 0-33). The primary effectiveness outcome was player-reported handball time to any new handball-related shoulder, knee, and ankle injury, reported weekly using the Oslo Sports Trauma Research Centre Questionnaire on Health Problems.

Results We enrolled 945 players (mean age 14.5 years, 55% girls) and 63 coaches (27% woman). Intention-to-treat analyses showed no statistically significant difference between implementation strategies in mean weekly exercise utilization (between-group difference -1.4, 95% CI -3.4 to 0.6) or in cumulative injury risk (between-group difference -5.5, 95% CI -13.1 to 2.2).

Conclusion Our findings suggest that in youth handball, a combined online and onsite implementation strategy including a workshop and HSP support was not superior to an online-only strategy in improving adherence to an IPEP or in reducing shoulder, knee and ankle injury risk.

Digital Health and Technology

19 USING WEARABLE TECHNOLOGY DATA TO EXPLAIN RECREATIONAL RUNNING INJURY: A PROSPECTIVE LONGITUDINAL FEASIBILITY STUDY

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Introduction Running offers a 40% reduction in premature mortality risk, but high rates of musculoskeletal injury. We aimed to investigate 1) if collecting and analysing wristwatch inertial measurement unit (IMU) and global positioning system (GPS) data using a commercially-available training platform was feasible in recreational runners and 2) which variables were associated with subsequent injury.

Materials and Methods We sought a minimum of 120 healthy recreational runners currently running with an IMU/GPS wristwatch. We set a priori feasibility thresholds for recruitment (maximum six-months), acceptance (minimum 80%), adherence (minimum 70%), and data collection (minimum 80%). Participants completed three patient-reported outcome measures (PROMS) detailing their psychological health, sleep quality, and intrinsic motivation to run, before linking their IMU/GPS wristwatch to the commercially-available DashLX platform. We extracted baseline anthropometric, biomechanics, metabolic, and training load data from the prior 12-weeks for analysis. Participants completed a weekly injury surveillance questionnaire to confirm their injury status over the next 12-weeks. Feasibility outcomes were analysed descriptively and between group differences with 95% confidence intervals were calculated for PROM/IMU/GPS data.

Results 149 recreational runners participated. 86 participants completed the study (55 men, 31 women) and 21 became injured (0.46 injuries/1,000km). All feasibility outcomes were satisfied (recruitment=47 days; acceptance=133/149 [89%]; adherence=93/133 [70%]; data collection=86/93 [92%]). Acute load by effort was associated with subsequent injury (mean difference -562.14, 95% CI -1019.42, -21.53).

Conclusion Collecting and analysing wristwatch IMU/GPS data using a commercially-available training platform was feasible in recreational runners and could be scaled up for an adequately powered prospective cohort.