behavior was collected using the injury preventative behavior questionnaire. We applied the average linkage hierarchical agglomerative cluster method using the Euclidean distance as the similarity measure. Cluster determination was optimized according to the BIC score. The model was validated by randomly splitting the data into two groups and confirming the number of clusters.

Main Outcome Measurements

Injury preventative behavior, SDT.

Results

The analysis revealed three clusters accounting for 50% of the variance in the data. Cluster 1 showed low levels of motivation and a positive association between injury severity and enacted IPB. Cluster 2 showed high levels of autonomous motivation who reported both low injury severity and low enacted IPB. Cluster 3 showed high levels of motivation, planned and enacted IPB regardless of injury severity.

Conclusions

Close collaboration between practitioners and scientists may prove a fruitful strategy when identifying an athlete’s characteristics and then translating this into a real-life injury prevention program.

Injury Distribution Analysis of the French Handball Championship Using Electronic Game Reports: A One-Year Longitudinal Study Among 323 628 Players

Background

Handball is one of the most traumatic Olympic sports, with a growing number of participants. Large sample size epidemiological studies across various playing levels are lacking in this sport.

Objective

To determine injury incidence over one season of the French championship and according to sex, level of play and time schedule as well as the most common injury locations.

Design

Prospective total cohort study.

Setting

French Handball championship over the whole 2016–17 season.

Participants

323 628 amateur and professional French handball players.

Interventions

The injuries that occurred during matches of the French handball championship were recorded by the officials of each team with the help of a specific medical questionnaire of the electronic match report.

Main Outcome Measurements

The number of injuries as well as injury rate expressed per 1000 Athlete Exposure (AE). The relative risks (RRs) were calculated and compared across the different categories.

Results

78 147 TE were recorded from the 202 394 official championship matches. The overall incidence was 23.5 TE/1000AE. Incidence rate was higher for national-level players (RR=1.22; CI 95% 1.19 to 1.25) compared to regional level, and 1.52 (CI 95% 1.50 to 1.54) at regional level compared to county level. Males were at lower risk of injury (RR=0.78; CI 95% 0.77 to 0.79). Three main injury incidence peaks were observed (October, February and April) corresponding to the academic holidays. The most common injury locations were Foot/Ankle (19.8%), Knee (15.5%), Hand/Wrist (15.2%) and Head/Neck (14.6%).

Conclusions

Handball is a sport with a high injury rate during matches, especially among female players from high level of play. The scheduling of matches during the season also appears to influence the number of injuries. Electronic databases could be considered as a promising tool to assess injury distribution in the context of epidemiological studies and sports prevention.