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Sports injury prevention in youth football

Submission date	Recruitment status	[_] Prospectively registered
04/11/2014	No longer recruiting	[_] Protocol
Registration date	**Overall study status**	[_] Statistical analysis plan
21/11/2014	Completed	[X] Results
Last Edited	**Condition category**	[_] Individual participant data
16/07/2026	Injury, Occupational Diseases, Poisoning	

Plain English summary of protocol

Background and study aims
Football (soccer) is the world's most popular sport and it is the largest team sport in Finland. The risk of injury is relatively high in football compared to other sports. However, despite this, there has been little research into how to prevent football injuries in young players aged between 10-14 years. Here, we want to investigate whether a comprehensive warm-up programme (intervention) in youth football will prevent injuries. We also want to know whether the programme improves player performance, and how the teams carry out this warm up.

Who can participate?
The Eerikkilä Sports Institute in the City of Tammela is a national football training centre in Finland. In every second year, the centre recruits 20 youth football clubs with young female and male players (aged 10-14 years) for a comprehensive player-development follow-up program called Sami Hyypiä Academy (SHA). Each player who is an official member of the SHA and is not suffering from a major injury will be included in the study.

What does study involve?
All clubs participating in the SHA project are randomly allocated into either the intervention or the control group. All coaches in the intervention group attend a theoretical and practical session on how to prevent football injuries. They are all given a tablet computer containing guidelines and videos of the comprehensive warm-up programme. The programme consists of six different exercises with progression focusing on young players' movement control, especially on core stability, knee control and ankle/foot function. Each team in the intervention group does the warm-up programme before football training sessions 2-3 times per week for 20 minutes. The teams in the control group are asked to continue their usual training. The study runs for 20 weeks.

What are the possible benefits and risks of participating?
The participating football clubs will receive an additional education session about the warm-up programme and the findings of the study. In addition, they will all be given a tablet computer and training materials by the research project. There are no obvious risks of physical injury in participating in this study. The warm-up training programme consists of basic exercises with low to moderate intensity. The main point in each exercise is to focus on safe technique. Taking previous injury prevention studies into account, no other risks seem to be likely.

Where is the study run from?
The study has been set up by the UKK Institute, Tampere, Finland in collaboration with the Sami Hyypiä Academy, Tammela, Finland.

When is the study starting and how long is it expected to run for?
January 2015 to June 2015.

Who is funding the study?
The Finnish Ministry of Education and Culture (Finland).

Who is the main contact?
Dr Kati Pasanen
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Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
04/11/2014 Pasanen

Study information

Scientific Title
Sports injury prevention in youth football: a cluster randomised controlled trial

Acronym
Terve Futaaja (Healthy Player)

Study objectives
It is hypothesised that by doing a comprehensive warm-up programme it is possible to decrease the incidence of sports injury.

Ethics approval required
Old ethics approval format

Ethics approval(s)
The Ethics Committee of Pirkanmaa Hospital District, 13/09/2013, ref: ETL-code R13110

Primary study design
Interventional

Study design
Cluster randomised controlled trial

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Sports injuries

Interventions
Participating football clubs will be randomised into the intervention or control group. The intervention group will do a comprehensive warm-up programme designed to prevent sports injuries before football training sessions 2-3 times per week. The control group will be asked to do their usual training.

The warm-up programme contains six different exercises with progression focusing on young players movement control, especially on core stability, knee control and ankle/foot function:
1. General warm-up exercise
2. Hip muscle exercise
3. Plank exercise
4. Single leg balance exercise
5. Single leg strengthening exercise
6. Single leg plyometric exercise

Intervention Type
Behavioural

Primary outcome(s)
Football related acute and overuse lower limb injuries. Data will be collected prospectively during the intervention period using weekly text messaging: Players/parents will respond to standardised text message question, followed by individual injury interview

Key secondary outcome(s)
1. Any other injuries
2. Measured performance properties (strength, power, flexibility, agility, knee control, balance, aerobic fitness): Players will visit SHA before beginning of the intervention and during the spring of 2015. They will participate in performance tests during these SHA-camps
3. Compliance: Individual participation on the intervention sessions will be registered by the coach on a player attendance form.

Completion date
07/06/2015

Eligibility

Key inclusion criteria
1. Registered at the SHA
2. Willing to patricipate in the study
3. Female and male players aged 10-14 years

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Child

Lower age limit
10 Years

Upper age limit
14 Years

Sex
All

Total final enrolment
0

Key exclusion criteria
Major injury at the baseline

Date of first enrolment
29/10/2014

Date of final enrolment
01/12/2014

Locations

Countries of recruitment
Finland

Norway

Study participating centre

UKK Institute
Tampere
Finland
FIN-33501

Study participating centre
Sami Hyypiä Academy
Tammela
Finland
FIN-31370

Study participating centre
Research Institute for Olympic Sports
Jyväskylä
Finland
FIN-40700

Study participating centre
Oslo Sports Trauma Research Center
PO Box 4014 Ullevål Stadion
Oslo
Norway
0806

Study participating centre
University of Jyväskylä
Finland
FIN-40014

Sponsor information

Organisation
The Urho Kaleva Kekkonen (UKK) Institute for Health Promotion Research (Finland)

ROR
https://ror.org/05ydecq02

Funder(s)

Funder type
Government

Funder Name
The Finnish Ministry of Education and Culture (Finland)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	Prevalence of all overuse injuries and substantial overuse injuries, 20-week follow-up study based on the control arm	01/02/2019	29/01/2019	Yes	No
Results article		28/04/2021	16/07/2026	Yes	No
Other publications	Secondary analysis	13/12/2021	16/07/2026	Yes	No