Training load management to reduce injuries in elite youth football

Submission date	Recruitment status No longer recruiting	Prospectively registered		
21/12/2017		☐ Protocol		
Registration date	Overall study status	Statistical analysis plan		
16/02/2018	Completed	[X] Results		
Last Edited	Condition category	[] Individual participant data		
14/10/2020	Injury, Occupational Diseases, Poisoning			

Plain English summary of protocol

Background and study aims

Youth football has similar injury problems to adult football, and injuries should therefore be considered a problem. An injury to a youth footballer could be detrimental to their ambitions and even worse, make them drop out of organized sports. However, research has shown that it is possible to reduce the rate of injuries in youth football. For example, the FIFA 11+ has shown a large reduction in overall injuries. However, prevention interventions in football have to date focused almost exclusively on interventions designed to alter intrinsic modifiable risk factors, for example through a structured warm up. Although training load seems to be highly associated with injury risk, no intervention has to date investigated training load management. The aim of this study is to investigate the effect of a training load progression model on injuries in elite youth footballers.

Who can participate?

Male and female footballers aged 15-19 from one of the top three tiers in Norwegian Junior football

What does the study involve?

The participating teams are randomly allocated to either the intervention group or the control group. Teams in the intervention group conduct training based on a load progression model. The control group is asked to continue normal training activity.

What are the possible benefits and risks of participating?

The knowledge gained will be of use to researchers, doctors and coaching staff working with all team sports. This program have no side effects and there is no potential risk involved in participating in the study. The total duration of intervention and follow-up is 11 months. The percentage of players reporting a health issue is measured using a questionnaire via text message on the last Sunday of each month.

Where is the study run from?
Oslo Sports Trauma Research Center (Norway)

When is the study starting and how long is it expected to run for? January 2018 to November 2018

Who is funding the study?
Oslo Sports Trauma Research Center (Norway)

Who is the main contact? Torstein Dalen torstein.dalen@nih.no

Study website

http://www.nih.no/forskning/prosjekter/forskningsprosjekter-ved-nih/styring-avtreningsbelastning-for-reduksjon-av-skader-og-sykdom-i-fotball/

Contact information

Type(s)

Public

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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

93841844

Study information

Scientific Title

Training load management to reduce injuries in elite youth football: a cluster randomised controlled trial

Study objectives

Individual training load management can reduce risk of injuries among elite youth footballers.

Ethics approval required

Old ethics approval format

Ethics approval(s)

The Norwegian School of Sciences Ethics Board, 21/12/2017, ref: 39-191217

Study design

Single-center cluster randomized controlled trial

Primary study design

Interventional

Secondary study design

Cluster randomised trial

Study setting(s)

Community

Study type(s)

Prevention

Participant information sheet

Not available in web format, please use the contact details to request a patient information sheet

Health condition(s) or problem(s) studied

Risk of injuries among elite youth footballers

Interventions

The trialists will cluster randomise on a team level. A computer-generated block randomisation will be performed, with block sizes of 4 and 6 in random order. After a team agrees to participate, the principal investigator will open a sealed envelope revealing their group assignment.

The teams will be randomly allocated to either the intervention group (18 teams, 300 players) or the control group (18 teams, 300 players). Intervention group coaches will be given access to a

digital tool for training load management. The coaches will plan their player's training weeks based on a progression model. The control group is asked to continue normal training activity. The total duration of intervention and follow-up is 11 months.

Intervention Type

Other

Primary outcome measure

Prevalence of health problems (percentage of players reporting a health issue), collected using the Oslo Sports Trauma Research Center Questionnaire via an SMS system on the last Sunday of each month

Secondary outcome measures

Incidence of injuries, collected through previously reported method (https://www.ncbi.nlm.nih. gov/pubmed/27034126) where the teams provide all time-loss injuries and illnesses

Overall study start date

01/01/2018

Completion date

30/11/2018

Eligibility

Key inclusion criteria

- 1. Elite youth footballers competing in one of the three highest levels
- 2. Both genders
- 3. Aged 15-19

Participant type(s)

Healthy volunteer

Age group

Other

Sex

Both

Target number of participants

600

Total final enrolment

482

Key exclusion criteria

Unable to communicate in Scandinavian language

Date of first enrolment

15/01/2018

Date of final enrolment

25/01/2018

Locations

Countries of recruitment

Norway

Study participating centre Norwegian School of Sports Sciences Norway 0863

Sponsor information

Organisation

Norwegian School of Sport Sciences

Sponsor details

Department of Sports Medicine Sognsveien 220 Oslo Norway 0863 +47 (0)23 26 20 00 postmottak@nih.no

Sponsor type

University/education

Website

www.nih.no

ROR

https://ror.org/045016w83

Funder(s)

Funder type

Research organisation

Funder Name

Results and Publications

Publication and dissemination plan

Planned publication in a high-impact peer-reviewed journal.

Intention to publish date

01/03/2020

Individual participant data (IPD) sharing plan

The datasets generated during and analysed during the current study are available upon request from Torstein Dalen-Lorentsen (Torstein.dalen@nih.no). All data is non-identifiable.

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/01/2021	13/10/2020	Yes	No