

Tailored Injury Prevention in Adapted Sports

No registrations found.

| | |
|------------------------------|----------------|
| Ethical review | Not applicable |
| Status | Pending |
| Health condition type | - |
| Study type | Interventional |

Summary

ID

NL-OMON24078

Source

NTR

Brief title

TIPAS

Health condition

Adult athletes with a physical disability that impairs motor function but who are otherwise healthy

Sponsors and support

Primary sponsor: ZonMw

Source(s) of monetary or material Support: ZonMw

Intervention

Outcome measures

Primary outcome

Primary outcome measures will be prevalence, incidence and nature of health problems (injury and illness) not specifically related to the disability, and actual injury preventive

behaviours.

Secondary outcome

Secondary outcome measures include the severity of health complaints, and perceived barriers and facilitators for using the online preventive approach in daily practice.

Study description

Background summary

BACKGROUND: Sports participation and a physically active lifestyle are stimulated for their health and social benefits and increased quality of life, both in able-bodied individuals and those with physical disabilities. One third of Dutch individuals with a physical disability participates in sports. Sports injuries do pose problems for all athletes and impact society, but often go hand-in-hand with additional problems in individuals with a disability as injuries can impose upon an already restricted lifestyle. With the relevance of studies on injury surveillance and epidemiology for preventive efforts widely acknowledged, there is a limited number of these studies in disability sports. Injury prevention is relevant to enable long-time sports participation and continuation of activities of daily living. This may be even more true for athletes with a physical disability. The variability in disabilities, and their relationship with each individual's ability to participate in sports and each individual's injury risk profile, highlights the need for tailored preventive approaches. Such individual approaches are upcoming, enabled by current technologies for the prospective and continuous online monitoring of health and performance related measures in individuals. Recent research has shown the ability to automatically provide online preventive advice to individual able-bodied athletes tailored to their reported health status (monitored over time using the OSTRC-questionnaire on health problems) and its effectiveness to reduce injury prevalence. This approach is applicable to athletes with a disability and fits the challenges prevention faces in these athletes. Given the specific injury risk and health problems in this population, this approach needs first to be reframed and adapted to make it valid and feasible for disability sports.

AIM: The proposed study aims to reduce the number of injuries due to sports and exercise in disability sports and their negative consequences, through early recognition of health problems and delivery of timely tailored preventive advice. More specifically the study aims to 1) collect data on physical health problems (injury and illness) in disability sports, 2) adapt the preventive approach used in able-bodied athletes to disability sports (called TIPAS), 3) implement and evaluate TIPAS aimed to increase preventive behaviours and reduce acute and overuse injuries, 4) evaluate the implementation of TIPAS.

TARGET POPULATION: Adult individuals with a physical disability that impairs motor function, active in various types of organised and non-organised sports activities at a competitive or non-competitive level.

DESIGN: The study will implement and evaluate an individual and tailored preventive approach for disability sports, based on continuous and prospective monitoring of patterns of

injury and illness in individual athletes and providing timely and tailored preventive advice (TIPAS). All preventive advice will be developed preceding the intervention start, built on the nature, incidence, prevalence and severity of sports injuries in disability sports, the evidence base of sports injury prevention, and experts' opinion following the steps of the Knowledge Transfer Scheme. Researchers, clinicians and end-users will review the OSTRC-questionnaire on health problems for use in disability sports. Any changes will be validated. This questionnaire will be used to collect injury and illness data in athletes with disabilities through a prospective cohort study over a 6-month period. Next, a two-arm randomised controlled trial (RCT) will evaluate the effectiveness of TIPAS as a pilot intervention over a 6-month period. Participants (n=210) will be randomly assigned to an intervention or control group stratified per sport. Patterns of injuries in individual athletes will be monitored weekly online using the adapted OSTRC-questionnaire. All participants will receive general preventive advice at baseline. In addition, the intervention group will receive weekly online preventive advice tailored to their reported health status during the intervention period. The RCT will be combined with a process evaluation to acquire end-users' feedback on using the intervention and identify conditions for effective implementation.

OUTCOME MEASURES: Primary outcome measures are prevalence, incidence and nature of health problems due to sports and exercise, and actual injury preventive behaviours. Secondary outcome measures are severity of injuries, and perceived barriers and facilitating factors for using TIPAS.

KNOWLEDGE TRANSFER AND IMPLEMENTATION: The study will be done in close collaboration with the field of practice to ensure an outcome that corresponds to their needs. Results will be widely communicated and implemented. Following the study, TIPAS will be available for further use. An implementation plan will be developed to enable that the intervention is available to and can be adopted by the field of practice.

Study objective

A similar approach has been shown to be effective to prevent injuries in able-bodied athletes. It is hypothesized that the intervention with disabled-athletes will show similar results.

Study design

Literature research, prospective cohort study and expert groups to provide an overview of relevant characteristics of athletes with a physical disability, available evidence on injury risk and prevention in disability sports (November 2019 - August 2021). Developing the intervention (March 2021- December 2021). Implement intervention in randomized controlled trial (September 2021 - August 2022). Process evaluation (August 2022- March 2023).

Intervention

A mixed-method study will be conducted to implement and evaluate a systematic preventive approach that is based on (i) continuous and prospective online monitoring the patterns of illness and injuries in individual athletes over time, and (ii) providing the athlete with online and timely preventive advice over time tailored to the athlete's reported health status.

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Eligibility criteria

Inclusion criteria

Eligible for study inclusion are adult athletes with a physical disability that impairs motor function, who participate in the Netherlands in (i) organised team and individual sports with the likely participation in competition (wheelchair rugby, boccia, wheelchair tennis, paratriathlon, parahockey, sitting volleyball, wheelchair basketball), and (ii) sport activities offered in rehabilitation centers (handcycling, fitness, indoor team sports). Primary target population are non-elite athletes.

Exclusion criteria

Based upon the inclusion criteria

Study design

Design

| | |
|---------------------|-----------------------------|
| Study type: | Interventional |
| Intervention model: | Parallel |
| Allocation: | Randomized controlled trial |

Control: Active

Recruitment

NL
Recruitment status: Pending
Start date (anticipated): 01-11-2019
Enrollment: 210
Type: Anticipated

IPD sharing statement

Plan to share IPD: No

Ethics review

Not applicable
Application type: Not applicable

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register ID

NTR-new NL8688

Other METC Amsterdam UMC, location VUmc : Prospective cohort study: 2020.290 // Randomized controlled trial: to be applicated

Study results