



UNIVERSITY OF PÉCS
MEDICAL SCHOOL



SPORTMED

University of Pécs Medical School
Sports Medicine Center

Researches on sportphysiotherapeutic field

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4 steps of effective prevention methods

STEP 1: definition of injury problem, including an assessment of the frequency of injuries and their consequences and its severity

STEP 2: determining the aetiology and mechanism of injury, the physiology of pathological conditions associated with injury

STEP 3: designing and implementing preventive interventions

STEP 4: evaluating the effectiveness of the methods introduced, comparing them with results of STEP 1, identifying the changes that need to be made

Example for a wrong study

STEP 1: a definition of the injury problem

Treatment possibilities of Achilles tendinopathy

Achilles tendinopathy is a degenerative, non-inflammatory condition most commonly seen in recreational and competitive running and jumping sports, but also occurs in sedentary people

Incidence rate: 2,35/1000 in 21-60 age group, 35 % in relation to sport

consequences: Achilles rupture

In our sample: 100 % frequency of occurrence





STEP 2: determining the aetiology and mechanism of injury, the physiology of pathological conditions associated with injury

Intrinsic factors	Extrinsic factors
<ul style="list-style-type: none">• age• gender• Body weight• Temperature of tendon• Strenght of muscle• Flexibility• Statical condition of foot• Anatomic variation	<ul style="list-style-type: none">• overload• Chemicals (steriod)



STEP 2: Materials and methods

Sample	Examination methods
Over 18-aged patient with Achilles pain (avg. age 44,7 years)) N=13 6 females, 7 males Height 177,07 cm Weight 84,79 kg BMI 26,46	<ul style="list-style-type: none">• VISA-A questionnaire• Wall test• Sit&Reach test• Physical examination• ultrasound• EOS



STEP 3: designing and implementing preventive interventions

- 3x6 weeks, 3x 30 min/week progressive program
- progressive strengthening and stabilisation of the muscles of the trunk
- eccentric exercises for the knee flexors and m. triceps surae
- proprioceptive training of the lower limb
- stretching of the flexor muscles of the knee and the lumbar spine muscles, supplemented by stretching of the triceps surae muscle

STEP 4: evaluating the effectiveness of the methods introduced, comparing them with Step 1
the results of the first step, identifying the changes that need to be made

- Frequency of Achilles pain
- Results of VISA-A
- Wall test
- S&R test
- Results of EOS and ultrasound

Conclusions

- improved structural and functional status of patients
- The frequency and intensity of pain is also reduced
- Yet results cannot be published due to lack of comparability and poor sample selection





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Thank you for attention!