The influence of exercise intensity on psychosocial outcomes in musculoskeletal disorders: a systematic review

KLAPS S.1, HAESEVOETS S.1, VERBUNT J.2,3, KÖKE A.2,3, JANSSENS L.1, TIMMERMANS A.1, VERBRUGGHE J.1

1 UHasselt, REVAL Rehabilitation Research Center, Belgium; 2 Adelante Centre of Expertise in Rehabilitation and Audiology, The Netherlands; 3 Maastricht University Medical Center, Department of Rehabilitation Medicine, The Netherlands

BACKGROUND
Psychosocial parameters play an important role in the onset and persistence of chronic musculoskeletal disorders (CMSDs)
➢ Exercise therapy = valuable therapeutic modality
➢ Exercise intensity = key factor for changes in pain and disability

But what do we know about the impact of exercise intensity on psychosocial outcomes?

AIM
To identify the effects of different modes of exercise intensity on psychosocial outcomes in persons with CMSDs

MATERIALS & METHODS
Systematic literature search
PubMed Cochrane PEDro Web of science

P adults with CMSDs
I exercise therapy as sole intervention
C different modes of exercise intensity
O psychosocial outcomes

Risk of bias assessment
PEDro checklist

Data extraction
Patient n, condition, duration, sex
Intervention intensity, frequency, duration, type
Outcome type, mean & SD

TAKE HOME MESSAGE
If you aim to improve psychosocial outcomes, it is necessary to adapt the exercise intensity to the specific CMSD

RESULTS

Systematic literature search
22 studies including 985 persons
➢ Chronic low back pain (CLBP)
➢ Fibromyalgia (FM)
➢ Knee osteoarthritis
➢ Axial spondyloarthritis

Risk of bias assessment
Majority: fair to good (mean PEDro score 5.77/10)

Data synthesis
Only consistent effects found in:

Fibromyalgia benefits more from:
➢ Low to moderate intensity
➢ Anxiety & depression
➢ Any intensity
➢ Quality of life

Chronic low back pain benefits more from:
➢ High intensity
➢ Anxiety, depression & quality of life

CONCLUSION
Psychosocial outcomes are influenced by the intensity of exercise therapy in FM and CLBP, but effects differ across other CMSDs