

The use of periodized exercise prescription in physical rehabilitation: A scoping review of literature.

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Background: The purpose of this review was to describe the use of periodized exercise prescription within the context of physical rehabilitation. This form of exercise prescription, which has found its way into the rehabilitation setting, seems to be a possible alternative to the current American College of Sport Medicine (ACSM) model of exercise prescription.

Methods: The following databases were searched to identify relevant literature pertaining to periodized exercise prescription: The Cochrane Central Register of Controlled Trials, Medline, Pubmed, Cinahl, Science direct, Pedro, Web of science, SPORTDiscus, SAGE and Google Scholar. A self-developed data extraction form was developed to gather the necessary information under the following headings: Author(s), year of publication, study location, study design, study population, intervention type (linear or nonlinear periodized programme), stage of rehabilitation, structure of the intervention (i.e. specific phases), dosage of the intervention (i.e. frequency, intensity, time), outcome measures, beneficial / adverse effects, primary result.

Results: Six studies were included in this review after the eligibility criteria was applied. Two studies

were RCT's, two were pair matched RCT's, one was a repeated measures design and one was a quasi-experimental case study. The included papers focused on the following population groups: cardiac, chronic non-specific lower back pain, chronic obstructive pulmonary disorder and spinal cord injury. Overall methodological quality of included studies was not adequate. Main outcome levels used in the included studies were related to physiological, impairment and quality of life measures. Consistency in programme structure specifically relating to the use of a familiarisation phase, sequencing of exercises and structuring of specific phases did not take place in all periodised exercise programmes. While exercise dosage varied due to the different population groups included. Majority of the included studies failed to indicate when exactly rehabilitation was taking place.

Conclusions: There is still a lack of consistency with regard to the structure and implementation of a periodized model of exercise prescription in the rehabilitation context. However, periodized exercise prescription seems to be a novel way of prescribing exercise within the rehabilitation setting.