

Background

Plenty of evidence has pointed out the reciprocal influence that adipose tissue has with the genesis, progression and perception of chronic pain. Indeed, excess adipose tissue finds its link with chronic pain on multiple levels: in its mechanical mechanisms, as an excessive load on joints; in its influence on the cognitive and behavioural sphere; more importantly, in its role as a low-grade inflammatory status generator. In the last years the anti-inflammatory implications of physical exercise have drawn attention. The core objective of this review is to explore the existing evidence about the modalities and effectiveness of physical exercise for the management of musculoskeletal chronic pain conditions, through its effects on adipose tissue-related pro-inflammatory markers.

Methods

The following databases were searched: Pubmed, CINAHL and Cochrane. Multiple Mesh terms, entry terms and keywords were employed, relating to the two main thematical areas: exercise intervention and inflammatory markers of interest.

Results

Ten articles met all the criteria and were therefore included in the present review. The studies investigated virtual reality training in comparison with either isokinetic exercise, combined training and sensorymotor training; isokinetic training versus either aerobic, core stability and control groups; resistance training; lumbar stability exercise with graded activity exercises, and tai chi with light exercise training.

Conclusions

No specific type of exercise seemed to be significantly more effective in targeting inflammation. This is surely affected by the scarcity and heterogeneity of literature on the matter. Though exercise therapy appears to actually have a beneficial effect on low-grade inflammatory status, there is need for more trials to be taken on

Bibliography

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- 4) Beavers, K. et al., «Effect of exercise training on chronic inflammation.»
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