

Graded Exercise Therapy (GET)/Cognitive Behavioural Therapy (CBT) is often counterproductive in Myalgic Encephalomyelitis (ME) and Chronic Fatigue Syndrome (CFS)

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Dear Editor,

We would like to comment on Van Cauwenbergh *et al.* [1] in which the authors outline guidelines for graded exercise therapy (GET) and cognitive behavioural therapy (CBT) for ME/CFS.

In this context, it is essential to make a distinction between ME [2], CFS and chronic fatigue (CF). While postexertional malaise, a long-lasting increase in symptoms, like pain and cognitive impairment, after a minor exertion is mandatory for ME, it is not obligatory for the diagnosis of CFS.

Van Cauwenbergh *et al.* [1] stipulate that the rationale for CBT and GET is kinesiophobia, resulting into the avoidance of behaviour and deconditioning. However, there is no correlation between kinesiophobia and exercise capacity, activity limitations, or participation restrictions in CFS patients with widespread muscle or joint pain [3]. Deconditioning and psychological variables also do not account for the symptoms [3].

The authors [1] claim that CBT/GET is an evidence-based effective therapy for CFS. However, most of the studies reviewed in [1] are studies on the effectiveness of CBT/GET in chronic fatigue (CF), not in CFS, let alone ME [2]. A recent large-scale trial in the UK showed that the effectiveness of CBT and GET in CF [1] in terms of 'fatigue' is 30% and 28%, respectively, while fatigue decreases in 15% of the cases by standard medical care. While CBT/GET results into a decrease in fatigue in some CF patients [3], there is no substantial clinical improvement in objective measures, for example activity levels, exercise capacity/oxygen uptake or distance walked in 6 minutes [1,3].

Even more, CBT/GET is often counterproductive. A long-lasting negative impact of exertion on in ME/CFS has been observed repetitively [3]. Data of Nijs *et al.* [4], for example,

show that an one-off walking exercise with intensity and duration limits results in an increase in pain lasting more than 24 h. Research [3] has demonstrated that exercise has a (strong) negative effect on the physiological exercise capacity 24 h later and that CFS patients are unable to sustain low target activity levels, indicated by reduced total activity after 4–10 days. A randomized controlled trial [5] observed that pain had increased and physical function had declined 12 months after CBT/GET.

A distinction between ME, CFS and CF is essential. CBT/GET is not an evidence-based effective approach and often has a negative effect in ME/CFS [3]. Future studies should explore the biological abnormalities in ME and CFS in more detail and the effect of exertion in well-defined subgroups to avoid iatrogenic harm.

Conflicts of interest

The authors would like to declare that they have no conflicting interests.

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References

- 1 Van Cauwenbergh D, De Kooning M, Ickmans K, Nijs J. How to exercise people with chronic fatigue syndrome: evidence based practice guidelines. *Eur J Clin Invest* 2012;**42**:1136–44.
- 2 Carruthers BM, van de Sande MI, de Meirleir KL, Klimas NG, Broderick G, Mitchell T *et al*. Myalgic encephalomyelitis: international consensus criteria. *J Intern Med* 2011;**270**:327–38.
- 3 Twisk FNM, Maes M. A review on cognitive behavioral therapy (CBT) and graded exercise therapy (GET) in myalgic encephalomyelitis (ME)/chronic fatigue syndrome (CFS): CBT/GET is not only ineffective and not evidence-based, but also potentially harmful for many patients. *Neuro Endocr Lett* 2009;**30**:284–99.
- 4 Nijs J, Almond F, de Becker P, Truijen S, Paul L. Can exercise limits prevent post-exertional malaise in chronic fatigue syndrome? An uncontrolled clinical trial *Clin Rehabil* 2008;**22**:426–35.
- 5 Núñez M, Fernández-Solà J, Nuñez E, Fernández-Huerta JM, Godás-Sieso T, Gomez-Gil E. Health-related quality of life in patients with chronic fatigue syndrome: group cognitive behavioural therapy and graded exercise versus usual treatment. A randomised controlled trial with 1 year of follow-up. *Clin Rheumatol* 2011;**30**:381–9.