

## Authors' response to commentary by Twisk

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We respond here to commentary by Twisk [1] on our article entitled “Defining recovery in chronic fatigue syndrome: A critical review” [2]. Our colleague presents a biomedical model of diagnosis and recovery that is interesting, but more hypothetical than practical given the current state of knowledge in CFS and ME.

We acknowledge that the use of objective assessments to ensure accurate diagnosis and document recovery is highly desirable; however, there is no such gold standard for CFS or ME. The Cardiopulmonary Exercise Test (CPET), as argued, may show promise as an objective measure of illness or perhaps recovery from illness; however, it is time-consuming, expensive, and burdensome to patients, many of whom will understandably refuse to undergo the rigors of 1–2 exhaustive treadmill tests. Also, it is simply not an established diagnostic test with all of the validation studies (e.g., sensitivity, specificity) that would be required. Thus, the evidence for the CPET as an illness marker is not sufficient to recommend it as a measure of recovery in any clinical or research context.

With regard to successful behavioral interventions in CFS, we agree that outcomes are rarely confirmed with more objective measures, such as actigraphy (which does not improve with the treatment) [3] or the 6-min walk test which sometimes shows increased fitness [4] and sometimes not.

The recovery assessment that we suggest is based on a trans-diagnostic model; it is intended to document what is commonly understood as indicating recovery, i.e., a sustained reduction of symptoms to normative levels and restoration of premorbid functioning. It does not depend on objective tests which in the case of CFS and ME are not available anyway.

Finally, symptoms should not be dismissed as unimportant to a recovery assessment because they are “subjective.” Patient-reported symptoms, including both fatigue and post-exertional malaise, convey critical information about illness severity and impact as well as potential recovery from illness. Without a full assessment of symptoms to inform the researcher’s characterization of illness, we are left with a biased, incomplete picture.

Our recommendations for documenting recovery are applicable to whichever illness definition, CFS or ME, is used, because it is based on broadly shared characteristics of health restoration: symptom relief, normative functioning, and importantly patients’ perceptions of their recovery status.

### References

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