



M.E. Analysis – Evaluating the results of the PACE study

a project supported by Phoenix Rising

3. It has not been proven that we should continue to use GET and CBT with all ME/CFS patients. [\(further details\)](#)

The PACE trial reported that very few patients had scores that worsened very much over the length of the trial, and this played an important part in concluding that it was safe to treat ME/CFS patients with GET and CBT. This disagrees with many reports from other surveys (such as the 2010 survey by AfME), so needs to be considered carefully. As mentioned earlier, there is a much more thorough study of the measurement of harm in this and other studies by Tom Kindlon.

On a superficial glance, one would think that only those who scored close to the boundary would be limited in movement: on the Chalder Fatigue Scale for example, perhaps only those who scored 32 or 33 would be unable to deteriorate. This would be wrong.

Suppose on the right we have the scores for a particular patient. The overall score would be 28 out of 33, so it would appear that the score could easily show a deterioration.

But 7 of these aspects are already at their worst score, so any deterioration in these aspects would not show. The only way for the score to become worse is for the three scoring 2 to become 3s, and for the one aspect unaffected by the illness (finding correct words) to now become a problem.

The average patient in the PACE trial would have problems with all 11 aspects, and a score of 28 or 29, so the scope for registering deterioration is very, very limited (see 6-details for a fuller explanation).

The Chalder Fatigue scale resists measuring deterioration in the average patient in the trial.

This is a summary of the 11 points in the Chalder Fatigue Scale: under the Likert scoring system, each aspect scores 0 if the aspect is better than when the patient was healthy, 1 if the same, 2 if worse and 3 if much worse.

Do you have problems with tiredness? 2

Do you need to rest more? 3

Do you feel sleepy or drowsy? 2

Do you have problems starting things? 3

Do you lack energy? 3

Do your muscles have less strength? 3

Do you feel weak? 3

Do you have difficulty concentrating? 3

Do you make slips of the tongue when speaking? 2

Do you find it more difficult to find the correct word? 1

How is your memory? 3

It is also possible to speculate that for some of the patients who were in the group that received both GET and SMC, the improvement caused by, say, help with pain control and sleep was offset by harm done by GET. As long as the improvement was larger than the harm, an overall improvement would be registered. The study doesn't lend itself to this sort of analysis, but if, for example, both the SMC-only group and the GET group each had ten similar patients scoring 33 points on the Chalder scale, and in the SMC-only group they all improved to 28, but in the GET+SMC group 5 improved to 25 and 5 only improved to 31, it is possible that GET helped half the group by 3 points and harmed the other half by 3 points. This could have been swamped by a few patients showing a marked improvement. Obviously the real results would be much more difficult to analyse.

It is entirely possible that great care was taken with the patients to avoid worsening their condition, and that if similar care was taken across the country, then the various accounts and surveys indicating that some patients found that GET and CBT caused them great harm may have been more due to an inflexible and less-skilled application of these therapies. But there is another problem with these hidden ceilings - patients will go through good and bad patches, and these may be of short or long duration. If a significant number of patients' scores are close to a boundary, then because there is more scope to improve than deteriorate, random changes together with a natural tendency for some patients to improve will themselves produce a weak average improvement. (If a class score an average of only 1 out of 10 in a tables test, then pure chance would

make it likely that the next test was better - it could hardly get worse!). In statistics, this is called "regression to the mean".

Of course, without access to the individual data, all of this is speculative. The authors of the PACE trial clearly expected much greater success. The fact that the results were very weak, and that there are areas of concern in the assessments which could in themselves cause a weak average improvement, means that the trial has not proved their case. It would also be unwise to assume that the assertion that these therapies are safe is a secure one.

It is appropriate here to quote Dr Alastair Miller talking about the PACE trial: *“Although NICE have previously recommended graded exercise and CBT as treatments for ME/CFS, this was on the basis of somewhat limited evidence in the form of fairly small clinical trials. This trial represents the highest grade of clinical evidence - a large randomized clinical trial, carefully designed, rigorously conducted and scrupulously analysed and reported. It provides convincing evidence that GET and CBT are safe and effective and should be widely available for our patients with CFS/ME.”* (Science Media Centre) We find it disturbing that he accepts that the evidence base prior to PACE was limited, and yet it has formed the only regular basis of treatment on offer to patients. The evidence that PACE provides is clear - CBT and GET have very little to offer a large proportion of patients: the “Number Needed to Treat” is around 7 or 8 (only one in 7 shows a clear improvement). If this is the strongest evidence to date for CBT and GET, then NICE must follow that evidence and cease to recommend these therapies for automatic use with patients diagnosed with ME/CFS, in line with the approach from Norway.

This is not the same as saying that GET and CBT have nothing to offer. Quite the contrary - there are a few patients, not necessarily having ME/CFS, who could benefit by a smaller or greater amount with the skilled application of these therapies, but these therapies should be appropriately targeted, especially bearing in mind the risk of causing harm. The PACE trial should contain enough information to determine the appropriate factors that distinguish these patients within the very broad Oxford Criteria.

GET was done on the basis of deconditioning and exercise intolerance theories of chronic fatigue syndrome.

CBT was done on the basis of the fear avoidance theory of chronic fatigue syndrome. (from the PACE trial)

On this evidence, given that either therapy was responsible for less than half the already small improvements in most measures, it seems inappropriate that these theories should continue to hold any relevance to ME/CFS in general. Inevitably, there will be some patients for any illness for whom deconditioning and fear avoidance are factors that hinder their progress, but it would be reasonable to suppose from this evidence that these theories are no more specific to ME/CFS than they are to heart disease, liver disease, or even a broken hip. It would be very unwise to assign all patients with a heart condition to Graded Exercise Therapy. It is equally unwise to do the same for patients with ME/CFS.