

## **CBT & GET as Defined in the PACE trial\***

### **Cognitive behaviour therapy (CBT)**

CBT was done on the basis of the fear avoidance theory of chronic fatigue syndrome. This theory regards chronic fatigue syndrome as being reversible and that cognitive responses (fear of engaging in activity) and behavioural responses (avoidance of activity) are linked and interact with physiological processes to perpetuate fatigue. The aim of treatment was to change the behavioural and cognitive factors assumed to be responsible for perpetuation of the participant's symptoms and disability. Therapeutic strategies guided participants to address unhelpful cognitions, including fears about symptoms or activity by testing them in behavioural experiments. These experiments consisted of establishing a baseline of activity and rest and a regular sleep pattern, and then making collaboratively planned gradual increases in both physical and mental activity. Furthermore, participants were helped to address social and emotional obstacles to improvement through problem-solving. Therapy manuals were based on manuals used in previous trials. CBT was delivered mainly by clinical psychologists and nurse therapists.

### **Graded exercise therapy (GET)**

GET was done on the basis of deconditioning and exercise intolerance theories of chronic fatigue syndrome. These theories assume that the syndrome is perpetuated by reversible physiological changes of deconditioning and avoidance of activity. These changes result in the deconditioning being maintained and an increased perception of effort, leading to further inactivity. The aim of treatment was to help the participant gradually return to appropriate physical activities, reverse the deconditioning, and thereby reduce fatigue and disability. Therapeutic strategies consisted of establishment of a baseline of achievable exercise or physical activity, followed by a negotiated, incremental increase in the duration of time spent physically active. Target heart rate ranges were set when necessary to avoid overexertion, which eventually aimed at 30 min of light exercise five times a week. When this rate was achieved, the intensity and aerobic nature of the exercise was gradually increased, with participant feedback and mutual planning. The most commonly chosen exercise was walking. The therapy manual was based on that used in previous trials. GET was delivered by physiotherapists and one exercise physiologist.

\*"Pacing, graded Activity & Cognitive behaviour therapy: a randomised Evaluation."

A 52 week study of 641 participants who met the Oxford criteria for chronic fatigue syndrome (of which 427 met international criteria for chronic fatigue syndrome and 329 met London criteria for myalgic encephalomyelitis).