Metacognitions are associated with subjective cognitive impairments in patients on sick leave for chronic fatigue

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BACKGROUND:

- Subjective cognitive impairments are frequent, but poorly understood in patients with pain and fatigue.
- Metacognitive beliefs have been shown to influence symptom severity in chronic health problems, and subjective memory problems have been claimed to involve metacognitive monitoring.

We hypothesize:

- That metacognitive beliefs at baseline, are associated with baseline subjective cognitive impairments
- Predicts subjective cognitive impairments at treatment termination.
- (3) A reduction in metacognitive beliefs is associated with less subjective cognitive impairments at treatment termination, controlling for pain, fatigue, anxiety, depression and insomnia

METHODS:

Patients (n=137) on sick leave due to chronic fatigue and or pain received a 3.5-week inpatient RTW rehabilitation program. A physician and a psychologist examined the patients. Patients completed questionnaires about somatic complaints, psychological complaints, and cognitive impairments before and after treatment.

Examples of measures:

- Chalder Fatigue Questionnaire
- Short Form 8 (Pain)
- Metacognitions Questionnaire-30 (MCQ-30)
- Everyday Memory Questionnaire (EMQ)

Data analyses:

To address hypotheses we performed paired t tests of change and calculated effect sizes (*g*). Moreover, we performed several hierarchical linear regressions.

RESULTS:



Hypothesis 1: The sum score on MCQ-30 at baseline was significantly associated with the EMQ sum score at baseline (p<.0001), controlling for gender and age.

Hypothesis 2: Pre-treatment score on cognitive confidence was associated with EMQ sum score post-treatment, controlling for all symptoms and baseline EMQ (*p*<0.0001)

Hypothesis 3: A reduction on MCQ-30 posttreatment score was significantly associated with a reduced post-treatment score on EMQ, controlling for pre-treatment MCQ-30 scores, fatigue (pre-post), pain (pre-post) and depression (pre-post) (*p*<.0001).

DISCUSSION:

This is the first study to report associations between metacognitive beliefs and subjective cognitive complaints in chronic fatigue patients. Metacognitive beliefs were associated with subjective cognitive complaints at baseline, but only of of these baseline beliefs predicted cognitive complaints post-treatment. Also, a reduction in negative metacognitive beliefs predicted less subjective cognitive complaints at treatment termination.

Strengths:

- Comprehensive examination
- Important worker population
- Gives a novel treatment approach

Limitations:

- Sample is selected
- No case definition of CFS/ME