

Table 1. Some of the components of cognitive behavioural treatment of chronic pain

Adapted from (REF Eccleston & Morley, 2008)

Education *about pain and the importance of psychological and behavioural factors is essential as part of a programme 's strategy to engage patients.*

Goal Setting *may encompass targeting particular areas for all patients e.g. work or domestic duties, to individualized and iterative goal setting.*

Relaxation and/or biofeedback *may be taught using a single technique, such as diaphragmatic breathing or progressive muscular relaxation or a set of different techniques to be applied across different settings*

Graded Activity, Exercise and Fitness Training and Activity Pacing *This may range from written or verbal advice on posture, body mechanics, ergonomics, and recommended exercise routines through to specific exercises and techniques targeted at movement and exercise integrated with the patient's physical strength and deficits and with their personal goals*

Operant principles *this requires a detailed functional analysis of the problem to identify the antecedents e.g. presence of others, type of social interaction, and place, where the behaviour is most likely to occur, and the identification of likely reinforcers.*

Behavioral Experiments *are an integral part of mainstream cognitive therapy and the main vehicle for producing cognitive and behavioral change. Behavioral experiments are developed to test individual's beliefs about the consequences (emotional, behavioral and cognitive) of either engaging or not engaging in particular behaviors.*

Attention management *at the simplest level this consists of provision of advice on one or more methods, such as the use of distraction or imagery control techniques. Experiential methods should be used to teach the techniques.*

Cognitive restructuring *includes a variety of methods aimed at changing both content and process of thinking.*

Problem solving *involves identification of the problem, generation of a range of possible solutions, prioritizing among those solutions according to opportunities, resources, and risks, and then attempting them.*

Generalization and maintenance strategies *A thorough program will pay attention to generalizing treatment gains and developing maintenance strategies.*

Table 2. Outcome domains and sample measure used in RCTs. After MEW and Fenton & Morley

Domain	Sample measures
Coping and Cognitive Appraisal	<i>Cognitive strategies and appraisals used to manage pain</i> Coping Strategies Questionnaire; General and specific self-efficacy or catastrophizing scales; Chronic Pain Acceptance Questionnaire
Disability	<i>Activities of daily living, impact on health and lifestyle</i> Arthritis Impact Measurement Scale; Oswestry Disability Index; Sickness Impact Profile; activities of daily living and physical disability sub-scales
Mood	<i>Depression, anxiety and other states</i> Hospital Anxiety and Depression Scale; Beck Anxiety Inventory; Beck Depression; anger scales.
Pain behaviour or activity	<i>Behavioural acts associated with pain, including walk distance</i> Pain Behaviour checklist; direct observation of pain behaviours; medication and visit to healthcare professionals count.
Pain experience	<i>Ratings of pain intensity, sensation and unpleasantness</i> Brief Pain Inventory; relevant subscales of McGill Pain Rating Index; numerical, verbal or visual analogue pain rating scales.
Physiology or fitness	<i>Assessments of biological functioning and physical fitness</i>
Social Role Functioning	<i>assessments of the ability of the person to function in various social roles, including familial, leisure and employment</i>