

# Cognitive behavioural therapy for chronic pain

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Cognitive behavioural therapy (CBT) for chronic pain is a term that covers a wide variety of interventions in diverse clinical settings, both at inpatient and outpatient levels. However, all CBT interventions are based on a common set of theoretical beliefs involving environmental events, cognitions and behaviours that determine patients' subjective perceptions and their overt displays of pain.

CBT evolved from the development of CBT for behavioural and psychiatric disorders in the early 1970s. All CBT approaches to chronic pain encompass the basic tenets of operant conditioning, i.e. that changes in responses are influenced by the presence or withdrawal of positive and negative reinforcement.

CBT approaches also stress that treatment outcomes may be improved and better maintained if attention is focused on the cognitive and effective factors that influence behaviour. This assumption is compatible with the gate control theory of pain, which suggests that perception of pain is the product of a complex interaction of our environmental, emotional reactions and cognitions.

## FIVE PRIMARY ASSUMPTIONS OF CBT

1. Individuals actively process information regarding internal stimuli and environmental events. In other words, they have a learned response to pain based on past experiences of pain. During psychological interviews, I find often that a history of chronic pain exists among a patient's family of origin. Invariably patients list increased social support as a means of attention seeking as the most common advantage to their pain when asked if they can identify any advantages to living with chronic pain.
2. An individual's thoughts may influence their emotional, behavioural and physiological responses. For example, high anxiety increases pain behaviour and subsequent physiological responses. We include stress management and coping skills as part of our programme, to help reduce anxiety and the requirement of anxiolytic medication.
3. There are reciprocal interactions between an individual's behaviour and environmental responses, e.g. chronic pain patients are more likely to seek additional help when the domestic environment (for whatever reason) is more stress inducing. Such symptoms are best described as psychosomatic, with no true organic cause at the time the patient presents for treatment. For example, we had

one patient with a persistent tremor for which no organic cause could be found. During psychological assessment, it became obvious that her tremor was merely a manifestation of stress within a very difficult home environment and, in particular, her relationship with her partner.

4. Treatment interventions must take a multidisciplinary approach and avoid treating only the physical symptoms. The emotional, cognitive and behavioural dimensions of an individual's problems must be addressed if the overall treatment plan is successful. That is why insurance companies are now demanding psychological impact reports, especially for personal injury claims. The psychological impact/symptoms of chronic pain often include symptoms of depression, anxiety, weight loss, panic, loss of libido, disturbed sleep patterns, stressful interpersonal relationships, reduced self-esteem and poorer quality of life.
5. Patients must learn to play an active rather than a passive role in their own recovery. By taking this on board, the patient is learning with the help of a psychologist to monitor the internal or external events associated with increased pain ratings. They are also learning how to prevent or reduce symptoms of pain by employing relaxation and other coping skills. Relaxation skills might include deep muscle relaxation (tensing/relaxing muscles, autogenic relaxation), training and visualisation skills. Proper dietary advice is also imperative as patients invariably either lose or gain significant amounts of weight.

## GOALS AND OBJECTIVE OF CBT

The patients must be helped to become problem solvers in the management of their pain, otherwise their emotional distress and other psychosocial difficulties will continue. The focus of problem solving attempts to teach the patient to learn to change and adapt to their new limitations of carrying out everyday activities. Patients must cease to live in the past and focus on the 'here and now'.

Patients must be taught how to monitor their thought processes, and learn the consequences of negative thinking in the management of chronic pain. Affirmations or positive thinking is generated from each patient as part of their goal setting from a psychological perspective. These affirmations encourage the patient to accept that they have a choice to either attempt or avoid activities. By encouraging the use of the word 'choice', the patient accepts responsibility for

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his/her own achievements or lack of achievements.

It is important to help patients identify when it is appropriate to use psychological skills towards effective pain control. Generally patients are encouraged to use the psychological skills they have learned on the course on a daily basis, e.g. to build in time to their daily structures, to practise relaxation, to use affirmations and so on. Change and adaptation are essentially key elements to the psychological approach to pain management.

Patients must learn effective adaptation skills to enable them to cope with pain after treatment terminates. This is why follow up treatment, assessment and updating or relearning of skills learned during any pain management programme is essential. It is usually at the three month follow up stage that patients require updating of skills, and need a reminder of the need to be consistent in the use/practice of pain management skills.

#### TREATMENT COMPONENTS OF CBT

##### Education

Education involves creating awareness for patients and family members to begin to alter negative perceptions regarding their abilities to manage pain and the psychological consequences of their pain. Family therapy is an essential component in the education of patients with chronic pain. The family session affords the family an opportunity to vent their frustration regarding the limitations in the life of their loved one and the effect it has had on individual family members.

All patients are taught relaxation techniques as a useful and quick response to high stress or pain levels. This allows patients in many circumstances to reduce stress and pain and thus cope in an adaptive manner with these unpleasant states. Quantifying pain on a 5 point scale before and after the relaxed state is a useful aid towards showing its effectiveness, where 0 is no pain and 5 is excruciating pain. Patients are encouraged to keep pain diaries while on the course.

##### Skills acquisition cognitive and behavioural rehearsal

The purpose of the skills acquisition component is to help patients and spouses engage in the process of learning new behaviours and cognitions that will help reduce pain. Success is predicated upon the skills with which the psychologist implements the cognitive and behavioural rehearsal. Patients are taught relaxation and simple exercise routines. Goal setting and pacing over the duration of the course and for follow up assessments are regularly taught and reviewed on a weekly basis. Goals and pacing must be realistic in order to be effective. Unrealistic goals and pacing skills create disappointment and depressive symptoms for patients.

A clear distinction is made between physical and psychological pacing and goal-setting techniques. Patients

must also learn to reward themselves (e.g. a short holiday) for successful completion of goals and appropriate pacing. Satisfaction ratings will automatically increase if patients can pace their activities in a pain-free manner.

##### Generalisation and maintenance

In addressing this part of CBT, patients are encouraged to discuss openly their beliefs and feelings regarding new problems they may encounter after treatment intervention. The first goal associated with this phase of treatment is to allow a patient to plan for future events concerning their pain. Secondly, it creates a forum where the inevitability of setbacks are discussed. Patients are reminded that setbacks should not be regarded as evidence of failure but rather as ways to re-use their coping skills or to develop new goals, behavioural strategies and reward systems. Following this, they have to teach the patient how to make a quick recovery after his/her relapse.

Thirdly, progress reports, such as pain diaries, diaries of thoughts and feelings (including stress and tension ratings) and video recordings of patients in pre- and post-treatment phases, act as useful reminders of a patient's progress during the pain management course. Nearly all patients show an average decreased pain rating of 1.5. Changes in posture are evident from video recordings.

#### EFFICACY OF CBT FOR CHRONIC PAIN

*CBT interventions relative to the standard medical treatment produces significant reductions in pain behaviour and disease activity (i.e. number of painful joints).*

CBT also produces a significant reduction in pain intensity ratings relative to improved social support. Several studies have shown that, if patients continue to practise their newly learned relaxation skill and coping strategies after treatment, they maintain their reductions in pain ratings up to one year post treatment.

To conclude, I feel it is appropriate to quote Dryden:

*'For all the happiness mankind can gain it is not in pleasure but rest from pain.'*

#### FURTHER READING

McCracken Lance M. Contextual Cognitive – Behavioural Therapy for Chronic Pain  
IASP Press, Seattle 2005

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