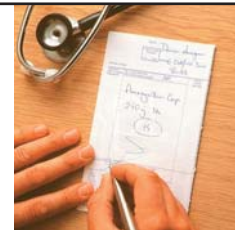




# Patient centred CBT for chronic pain



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Cognitive behavioural therapy (CBT) has been shown to be very effective in achieving a range of improvements with patients who suffer chronic pain.<sup>1</sup> What are the elements of CBT for chronic pain management and how can the general practitioner help to implement these?

## What is CBT?

There is a dynamic relationship between what a person does, what they think and how they feel. People who attend for assistance from a GP are often most concerned about how they feel and have not been able to make appropriate changes in their life to help them feel better. Cognitive behavioural therapy aims to assist the person to change what they do and what they think to help them feel better. The premise is that it is easier to consciously change what we do and what we think than it is to change how we feel.

The cognitive components of CBT include mental processes such as the focus of attention, memories and beliefs (ie. what they think about pain and its impact on their life). In cognitive therapy, eliciting a patient's belief about their situation is of primary importance.<sup>2</sup> This process will reveal what the patient is saying to themselves about their pain ('self talk'). A typical example of self talk

in a person with chronic pain is, 'I have no control over my pain, it controls me'.

The behavioural component of CBT includes the actions a patient takes (ie. what they do). These actions are directly observable by the GP and others who know the patient. For this reason it can be helpful to gain feedback from the patient's family members or work associates. A typical example of a behavioural response in a person with chronic pain would be reduced physical activity and avoidance behaviour.

In the CBT approach, an assessment is made of how the person's lifestyle has changed as a result of pain and the physical impairment accompanying it. It is helpful in this assessment to write down on paper or a whiteboard all these changes. It then becomes evident to the patient in what specific ways and in how many ways their life has changed. The purpose of the CBT program then becomes to reverse the effects of these changes as much as possible.

A vital strategy in cognitive therapy is to challenge unrealistic and unhelpful beliefs. For example if the person believes, 'I have no control over my pain' ask the question: 'What is the evidence for this belief?' Typically, people with chronic pain neglect to acknowledge the positive ways they control their pain

or their ability to reduce the degree to which it bothers them.

The main principle for behaviour therapy is to increase behaviours that are helpful and to reduce those that aren't. For example, avoidance of physical activity is not helpful while increased mobility is. Therefore, re-engaging in physical activities is useful, while avoiding them because of discomfort is not.

In a meta-analysis of 25 trials, Morley et al demonstrated that CBT is very effective in achieving a range of improvements with patients with chronic pain.<sup>1</sup> Similarly, McQuay et al reviewed 35 randomised controlled studies on CBT for chronic pain patients and found that high quality studies demonstrated large and sustainable changes for the targeted outcomes.<sup>3</sup> Cognitive behavioural programs have been favourably compared to nonpsychological treatments,<sup>4</sup> while the role of psychological factors in chronic pain has been comprehensively reviewed in Gamsa.<sup>5,6</sup>

Morley et al found that active psychological treatments based on the principles of CBT produced significant improvements on several measures when compared to waiting list control conditions.<sup>1</sup> This included measures of pain experience, mood/affect, cognitive coping and appraisal (reduction of negative coping and increase in positive coping), pain behaviour,

ACTIVITY		How often?			How enjoyable?		
<b>A</b>	<b>CREATIVE ACTIVITIES</b>						
1	Doing art work	1	2	3	1	2	3
2	Doing craft work such as pottery, ceramics, knitting, sewing, woodwork	1	2	3	1	2	3
3	Taking creative courses – cooking, photography, pottery	1	2	3	1	2	3
4	Redecorating a room or house	1	2	3	1	2	3
5	Restoring furniture and doing woodwork, carpentry	1	2	3	1	2	3
6	Photography or writing	1	2	3	1	2	3
7	Writing or arranging songs or music, singing or dancing	1	2	3	1	2	3
8	Learning a musical instrument	1	2	3	1	2	3
9	Acting or taking lessons	1	2	3	1	2	3
10	Reading books, articles, magazines related to creative interests	1	2	3	1	2	3
<b>B</b>	<b>ENTERTAINMENT ACTIVITIES</b>						
1	Watching TV, listening to radio, music, CDs	1	2	3	1	2	3
2	Going to a play or drama, movies, concert, opera or ballet	1	2	3	1	2	3
3	Going to art gallery, exhibition, museum	1	2	3	1	2	3
4	Going to a rock concert or sports event	1	2	3	1	2	3
5	Going to races (car, boat, horse)	1	2	3	1	2	3
<b>C</b>	<b>EDUCATIONAL ACTIVITIES</b>						
1	Reading books, plays, poems or academic literature which interests you	1	2	3	1	2	3
2	Going to lecture courses or other classes which interest you	1	2	3	1	2	3
3	Learning a foreign language or something new (acquiring a new skill)	1	2	3	1	2	3
4	Going to the library	1	2	3	1	2	3
<b>D</b>	<b>PHYSICAL ACTIVITIES</b>						
1	Playing tennis, squash, golf, bowls, swimming, surfing	1	2	3	1	2	3
2	Running, jogging, gymnastics, walking, skating, skiing	1	2	3	1	2	3
3	Boating, canoeing, sailing, bike riding	1	2	3	1	2	3
4	Involved with animals, eg. horse riding	1	2	3	1	2	3
5	Playing group sports (cricket, football, volleyball, table tennis)	1	2	3	1	2	3
6	Hunting, shooting, archery, fishing, bushwalking, caving or exploring	1	2	3	1	2	3
7	Camping	1	2	3	1	2	3
8	Sitting in the sun or being at the beach	1	2	3	1	2	3
9	Driving a car or riding a motorcycle	1	2	3	1	2	3
10	Playing snooker, pool						
11	Participating in a club related to your own interests or playing competition sport	1	2	3	1	2	3
<b>E</b>	<b>SOCIAL ACTIVITIES</b>						
1	Writing to, telephoning or re-contacting an old friend	1	2	3	1	2	3
2	Visiting or inviting a friend or neighbour to your place or to lunch or dinner	1	2	3	1	2	3
3	Arranging a meeting or outing with several mutual friends	1	2	3	1	2	3
4	Meeting someone new of the opposite or same sex	1	2	3	1	2	3
5	Joining a club (social, recreational, academic)	1	2	3	1	2	3
6	Social drinking or going to a wine bar, hotel, or to a restaurant with friends	1	2	3	1	2	3
7	Going to a party, picnic, barbeque and being with people I like	1	2	3	1	2	3
8	Complimenting or praising someone, or doing something positive for someone	1	2	3	1	2	3
9	Engaging in your preferred sexual activities	1	2	3	1	2	3
<b>F</b>	<b>MISCELLANEOUS ACTIVITIES</b>						
1	Active involvement in politics, community or social action groups	1	2	3	1	2	3
2	Playing chess, draughts, cards, bridge, board games	1	2	3	1	2	3
3	Collecting things, eg. stamps, coins, wine, flowers, rocks, driftwood	1	2	3	1	2	3
4	Visiting interesting outdoor places (eg. zoo, reserves, parks, riverside, harbour)	1	2	3	1	2	3
5	Being in the country, mountains or planning a holiday or trip	1	2	3	1	2	3
6	Giving or receiving massages or backrubs or going to a sauna	1	2	3	1	2	3
7	Doing yoga or meditation	1	2	3	1	2	3
8	Shopping	1	2	3	1	2	3
9	Buying something for yourself	1	2	3	1	2	3

**Scoring instructions**

How often?	How enjoyable?
1. This did not happen in the past month	1. This was not pleasant (either unpleasant or neutral)
2. This happened a few times (1–4) in the past month	2. This was somewhat pleasant (mildly or moderately pleasant)
3. This happened often (5 or more) in the past month	3. This was very pleasant (very or extremely pleasant)

Figure 1. Pleasant events schedule<sup>8</sup>

Source: Lewinsohn P, 1982.



activity level and social role function. Flor et al reviewed 65 studies that evaluated the efficacy of multidisciplinary treatments for chronic back pain.<sup>7</sup> This review concluded that: 'at long term follow up patients who are treated in a multidisciplinary pain clinic are functioning better than 75% of a sample that is either untreated or that has been treated by conventional, unimodal treatment approaches'.

## Cognitive strategies

### Change the patient's conceptualisation of pain management

Typically patients view the practitioner as being there to 'fix' them and take away or reduce pain. The patient's perception of their pain is increased by this passive approach. The more the patient believes their own actions will be the main means of managing their pain, the less dependent they will be on the practitioner and pain medication.

### Change self defeating beliefs about pain

Reassure the patient that increased physical activity is not going to lead to an exacerbation of their injury, although it may lead to a temporary increase in discomfort. Knowing this, patients can then decide whether to carry out activities while knowing there may be some payback later in terms of a temporary increase in discomfort.

### Reverse the lifestyle effects of chronic pain

Most patients curtail their normal recreational and social activities as a result of chronic pain, thereby decreasing the enjoyable activities necessary for a satisfying lifestyle. Help patients identify activities they enjoyed before injury, and encourage them to return to these if possible. Where physical limitations restrict the return to previous activities, assist the patient in finding new activities and interests.

The 'pleasant events schedule' is a list of pursuits with ratings of how enjoyable an activity is and how often it is done (*Figure 1*). This can be given to patients to fill out at home to discuss with you on their next visit. It will stimulate their thinking about past enjoy-

able activities and provide ideas for activities they could take up in the future. A version of this schedule is available on page 719 of the September 2003 issue of *Australian Family Physician*.<sup>8</sup>

### Help the patient to problem solve

Problem solving to overcome apparent obstacles can mean finding new ways of carrying out old activities. Blashki et al detail how structured problem solving can be applied to common problems.<sup>8</sup> Help the patient's family to cope and assist by explaining CBT principles to family members.

### Help the patient set realistic goals

Setting realistic goals can include goals for increasing physical, social and vocational activity and reducing pain medication. A graded approach, which involves making only small increased changes, will increase the likelihood of success and help challenge beliefs about not being able to do anything at all.

## Behavioural strategies

### Encourage the patient to test and extend their physical limits

Introduce the idea of pacing, eg. taking out the washing in several trips rather than in one, walk around the block once for the first week, and twice the next.

### Encourage the patient to carry out activities in spite of pain

When a person with chronic pain has been pain focussed, they believe they are unable to carry out activities while experiencing pain. However, carrying out activities usually distracts the mind from the pain experience so that the perception of pain is considerably less. This behaviour challenges the belief that, 'I cannot do things when I'm in pain' and helps lead to a re-appraisal, 'I can still do things in spite of the pain'. This is clearly more helpful 'self talk'.

### Encourage 'formal relaxation'

The practice of formal relaxation will reduce muscle tension.<sup>9</sup> Help the patient identify other activities that help them relax, eg. lis-

tening to music, gardening or fishing.

### Help the patient set up a pain diary

A pain diary that monitors cognitive, behavioural and pain experiences in daily situations (*Figure 2*) helps identify possible patterns that influence the pain experience and assists in the analysis of unhelpful and helpful thinking styles and behaviours. Educating the patient to ascribe a numerical rating of their pain at any point is essential. To initiate this process ask the patient: 'What would you say your pain rating is right now from 0–10, where 0 is no pain and 10 is the worst pain you could imagine'. Work out with the patient the time intervals they think they will be able to record information in their pain diary.

### Encourage regular GP contact

Scheduling of regular appointments helps to convey your commitment, even if they are not feeling better. It can also avoid the difficulty of only seeing the patient when they are in crisis and looking for a 'quick fix'. Encourage regular use of pain medication rather than pain dependent use.

## Allied health

Nicholas et al suggest that with the persistence of pain the person's activity level is likely to decline.<sup>10</sup> This results in deconditioning of the muscles and stiffness in the joints. If the patient continues with ineffective treatments this reinforces their unhelpful beliefs such as waiting for an external solution to their problem, thereby effectively discouraging attempts to take on a more active role in rehabilitation.

Physiotherapy in the CBT approach to pain management places emphasis on being active rather than using passive techniques. Active physiotherapy involves helping the patient develop a stretching routine and exercising to reduce stiffness and increase muscle strength. A physiotherapist using this approach is likely to place the patient on a gym or hydrotherapy program. They will also emphasise the longer term benefits of increased mobility and strength through activity even though this may lead to a temporary increase in pain.

### Case history – Ben

Ben is a 36 year old electrician who worked in a food processing plant. He sustained a back injury while attempting to lift – while twisting – a heavy piece of equipment. He returned to work after medical tests and physiotherapy. Although Ben was on pain medication, he reported a high degree of pain to the point where he felt he could no longer continue working. He was referred to a clinical psychologist 6 months post-injury. Initial assessment indicated Ben was depressed and feeling hopeless about his situation. He was exhibiting very negative self talk, high pain ratings ( $p=7-9$ ) and greatly reduced physical activity. He was avoiding walking and spent a lot of time lying on his lounge propped up with pillows watching television.

The CBT approach was explained to Ben and relaxation training was introduced. He noticed that he experienced pain free periods during relaxation and this helped to challenge his negative self talk over control of his pain.

With CBT Ben began to see how he had been viewing his situation in a negative way. Through the use of the pain diary the clinician was able to discuss specific situations with Ben in which he reported higher pain responses. This allowed for the identification of self talk in these situations. Unhelpful and unrealistic self talk was then challenged, helping Ben identify the 'thinking errors' he had been making. As a result Ben began perceiving his experiences in different situations in more realistic and helpful ways. This led to behavioural changes such as increased physical activity and re-engagement in enjoyable activities.

Goal setting helped Ben work out a gradual and realistic return to work schedule, which minimised the chances of re-injury and maximised his chances of success. Over a 2 month period Ben returned to being optimistic and managed the pain flare ups he sometimes experienced. He became very adept at using relaxation techniques to reduce muscle tension and thereby reducing his pain experience.

## Conclusion

Cognitive behavioural therapy has a strong evidence base for its use in the management of people with chronic pain. The GP can play a key role in introducing CBT principles into the care of their patients with chronic pain. They can also assist with referral to appropriate professionals when required.

## Resources

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 White C. *Cognitive Behaviour Therapy for Chronic Medical Conditions: A Guide to Assessment and Treatment in Practice*. New York: Wiley & Sons, 2001.  
 Pain Management Research Centre: <http://www.painmgmt.usyd.edu.au>  
 The Australian Psychological Society (APS) runs a telephone and email referral service to the general public, GPs and other health professionals who are seeking the advice and assistance of a qualified and suitable APS psychologist. Phone 1800 333 497 outside Melbourne, 8662 3300 in Melbourne. <http://www.psychology.org.au>

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