Module:
Psychological Foundations of Mental Health

Week 5
Psychological therapies: from behaviour modification to behaviour therapy

Topic 2
The second wave – the role of cognition and the emergence of cognitive therapy – Part 1 of 3

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Lecture transcript

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As with any seeming new idea or approach, if we look carefully, we find that someone else usually got there first. When it comes to the human mind, to our thoughts, emotions, and behaviour, that person was often William Shakespeare. If there is one line of his work that captures the essence of cognitive therapy, it is this one here. "There is nothing either good or bad, but thinking makes it so."

These words were spoken by Hamlet, Prince of Denmark, when describing his country and, indeed, the whole world as a prison. In reflecting that it is our own thoughts that make something good or bad, he is also acknowledging that two people in the same position can have very different feelings about it.

In the play, we see how this thought directly guides his emotions and behaviour. Hamlet is withdrawn and angry and probably depressed, critical of what he sees about him. What unfolds, in true Shakespearean style, is a tragedy of passion and death, and ends with Hamlet's own suicide.

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If we were to take Hamlet's basic premise that we can make things seem good or bad by how we think, we can propose a simple model. This starts with Hamlet's situation, to the ultimate outcome. The intervening variable is his thoughts. These lead to the emotions and the actions.

We can consider emotions as covert actions, just as Mowrer did in his two-process model. In cognitive terms, thoughts are true mediating variables. They change and transform the relationship between the input and the output, rather than serving as simple links in a chain.

Shakespeare did not arrive at this model from experiments, but from his own deep understanding of the nature of the human mind and behaviour, his own and those of people around him, present and past. Of course, Shakespeare may also have been influenced by one of our friends, the Greek philosophers.

As usual, they were 2,000 years ahead of us. In this case, it was not Plato or Aristotle, but the philosopher Epictetus, who died in the year AD 135. Amongst his doctrines, he proposed that

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determining between what is good and what is not good is made by the capacity for choice, in other words, our conscious thoughts, and is not absolute.

Despite this long gestation period, it was almost 500 years before Shakespeare's insights found application in how we approach the treatment of mental health problems. This turned into the second wave of modern psychotherapies to emerge in the 20th century, cognitive therapy. As it developed, it incorporated and refined behavioural approaches. And so today, the term "Cognitive Behaviour Therapy" is more typically used, or CBT, for short.

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Cognitive therapy, or CBT, is not a single entity, but describes a broad range of different therapeutic approaches. Each has been developed and applied within its own particular framework that emphasise different aspects of the mediational process and specific therapeutic techniques. Broadly, we can identify three strands that characterise the second wave approach that developed from the 1950s onwards.

First, those that seek to develop a range of adaptive skills, cognitive, practical, and interpersonal. These are designed to allow a person to cope better with the situations in their life that are causing them problems. This is based on the assumption that emotional distress and negative outcomes is a result of the use of ineffective coping responses that do nothing to help our situation and may even make it worse.

Some of these may be serving as safety behaviours, others simply unhelpful ways to try to deal with a problem. In other words, the person's learned coping responses are maladaptive. The aim of the therapy is to identify those maladaptive responses and replace them with a set of more adaptive ones.

Somewhat related are approaches that focus on improving problem solving, particularly in the context of interpersonal difficulties. These focus on a broad approach of finding new ways to identify and understand the nature of a particular problem and alternative ways to resolve them.

While both of these approaches include important cognitive elements and use cognitive techniques, probably the purest reflection of the cognitive approach are those that seek to identify and change the basic maladaptive thinking patterns that mediate the process, so-called cognitive restructuring approaches. We will mainly look at this latter approach as we go through this topic and the next.

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There are many figures that influenced the development of cognitive therapy over the years. The two most often credited with the development of the fundamental models and practice of cognitive therapy are the psychiatrist Aaron T Beck and the clinical psychologist Albert Ellis.

Both were initially trained in psychoanalysis in the 1940s and '50s, when it was still the predominant therapeutic approach to the treatment of emotional disorders in America. Both came to reject the approach and were strongly influenced by the emerging evidence from cognitive psychology. For Beck and Ellis, the primary aim of their therapy was the reduction of emotional distress, whether depression, anxiety, anger, or other negative emotional state.

Ellis was the first, in 1957, to publish, teach, and apply a version of what we would now call cognitive therapy and which continues to be researched, taught, and used today. His therapy, initially called rational therapy, has many elements common to Beck's slightly later cognitive therapy. Indeed, as the approaches have developed over the decades, the fundamental similarities greatly outweigh any differences.

Ellis's therapy was subsequently called rational emotive therapy and today has been broadened and is called rational emotive behaviour therapy. We will focus here on Beck's cognitive approach, rather

than Ellis's. This is not because it is fundamentally superior, but rather is a reflection of its greater influence that the work has had on subsequent research and practice.

Both, however, share two core premises that underpin the cognitive models. The first is that our emotional state is not a direct consequence of our situation, but is mediated by our thoughts. The second is that those thoughts are often illogical or irrational.

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Beck's ideas were strongly influenced by his work as a practicing psychiatrist, treating patients with a wide range of mental health problems. However, it was his experience treating people with depression that formed the foundation of his model. In a retrospective of 40 years, published in 2005, Beck described both the current state of cognitive therapy as he saw it, but also described the process of its early development.

From the beginning, he set out guidelines for what has become the key approach to therapy development and evaluation. This is the approach used today, as we seek ever more effective treatments, supported by robust theories and systematically tested through clinical trials and experimental studies. First, to use Beck's own words, we need "to construct a comprehensive theory of psychopathology that articulates well the psychotherapeutic approach."

Let's unpick this a bit. Although Beck initially focused on depression, he believes that the different psychiatric disorders and symptom presentations reflect the operations of a set of course psychological, in this case, cognitive, processes. However, he did not want an abstract theory. Rather, he felt that a theory needed to be framed in a way that lends itself to therapeutic intervention. In other words, the theory is not just about describing what is observed or inferred, but identifying modifiable targets for treatment.

Second, Beck states that we need to investigate empirical support for the model, in other words, to test it. Of course, within science, we also need to look for evidence that contradicts the predictions of the theory, perhaps something that many areas of science, including psychology, are less good at. As we will see later, such evidence, supportive and contradictory, can come from a wide range of sources, from qualitative studies, from observational and descriptive quantitative studies, and from experimental studies.

Third, Beck states that we need to conduct empirical studies that test the efficacy of the therapy, in other words, to see if it works. However elegant the theory and however good the empirical evidence that supports it, if the derived treatment does not change the target, the symptoms, it has no clinical value.

This process of evaluation, while essential in deciding whether a treatment should be used, also provides further empirical test of the theory. As described, this looks like a simple, three step, linear process, as shown on the left. In practice, the process is a continuous cycle, in the case of cognitive therapy, one that has been going on for over 50 years.

In this topic, we are going to look at the main elements of Beck's cognitive model, taking depression as an example, before seeing how it lead to the development of a cognitive therapy. We will not consider the evidence for and against the model quite yet. We will come to that next week, when we look at both the experimental and clinical trial evidence to see how well the theory and therapy stand up to evidence.

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Before we look at Beck's theory and treatment, we should start with measurement. Without being able to measure things relevant to the theory, we are hampered in our research to test its predictions or measure outcomes from the new treatment derived from the theory.

Before Beck published his theory, he did something that seems commonplace today. He developed and published a questionnaire that allows for the reliable assessment of the range of symptoms that comprise depression within a theoretical framework. This was the Beck Depression Inventory or BDI, published in 1961 and which continues to be used today in research and clinical practice.

It has been through a number of revisions over the years to improve its measurement properties, but also in response to changes in our understanding of depression. The most recent version is the BDI-II, published in 1996.

Unlike previous psychometric methods to assess psychopathology or aid diagnosis, the BDI assessed what the patient was actually experiencing in a range of different domains, not just in their mood, but also in terms of their thinking, their behaviour, and their physical state. The assessment covers the preceding week, acknowledging that depression is a persistent problem, not a fleeting change in response to an immediate event.

The original and subsequent versions of the BDI comprise 21 questions, each presented with four different options, indicating the presence and increasing severity of a depression-related problem or symptom. These were derived by Beck largely through his personal experience as a clinician, working for many years with people with depression. The precise questions and wordings have changed over the years, with evidence to better reflect consensus about the core symptoms of depression.

We see here the areas covered in the BDI-II. One thing that is evident is the complexity of symptoms that can be present in depression. As well as some of the seemingly obvious ones like sadness and crying and thoughts of suicide, we see other emotions, including irritability and agitation, as well as features related to motivation, such as loss of pleasure and loss of interest.

There are other features related to physical aspects of the depression, disturbances of sleep and appetite and sex, and loss of energy, as well as poor concentration and indecisiveness. Finally, we see a range of features which we will see lie at the core of Beck's cognitive model of depression and of cognitive therapy. These are a range of negative attitudes, beliefs, and perceptions manifested as pessimism about the future, feelings of failure, of guilt, self-punishment, and low self-worth.

There are literally dozens of self-report scales used for the assessment of depression, which overlap considerably in content, but with varied emphasis on the different types of symptoms. In particular, the BDI includes more of the features in the third set shown, reflecting the importance attached to them in Beck's model. It is important to note that not all people with depression will show all of these features and not all to an equal degree.

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Here is just one item from the 21 of the BDI, the one measuring sadness. There are four descriptive statements, from no subjective sadness to severe and distressing sadness. The various items scale the options according to a mixture of frequency, how much of the time they have been present in the past week, their intensity, or their impacts, or, as here, a mixture.

The respondent simply circles or ticks the statement that best describes their feelings over the past week. The total score across all 21 items provides an index of total depression severity, with higher scores indicating more severe depression.

It's important to note that the scale is not diagnostic. It does not tell us whether the person meets clinical criteria for a diagnosis of depressive disorder. This requires the application of clinical criteria, typically following a detailed interview with a trained clinician or researcher. Rather, the BDI tells us the total level of depression-related symptoms.

However, although not diagnosing depressive disorder per se, various cut-off scores are suggested that group people into minimal depression, mild, moderate, and severe depression, as shown here. It

is important to be aware that care is needed in applying such cut-off scores, whether in research or clinical practice.

First, any such cut-off is by definition arbitrary, given that scores will be continuously distributed in the population. Second, cut-off scores may vary in different groups of individuals, for example, between young adults and the very old, or between those who are physically healthy and those who have a long-term physical health problem.

The BDI that we've been looking at is one of a class of measures called self-report instruments or sometimes patient reported outcome measures. It is subjective, in other words, self-completed by the individual. A contrasting method of assessment is one based on expert judgement, typically through an interview, whether clinician or trained researcher, who rates the present severity and clinical significance of symptoms, based on the patient's response to standard questions.

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Let's start to look at Beck's cognitive model that he first described in a paper published in 1963. His experience working with depressed patients led him to recognise that they frequently expressed negative statements that, he suggested, fell into three broad areas. First, statements about themselves which expressed negative evaluations, that they were ugly or useless, a failure, unlovable, unemployable, and so on.

Second, they tended to voice negative beliefs about the future and particularly their own future, that it was hopeless, that nothing would change, and so on. Third, there were statements about the world and the people in it, for example, that no one loves me. No one wants to be my friend. Employers don't want me. Such statements were rarely isolated, but were often linked together, as suggested by the two-way arrows in the figure.

Beck considered such statements as the outward expression of a relatively stereotyped pattern of thinking that characterised people with depression, that he called the cognitive triad. Beck proposed that this triad reflected an underlying schema, based on a set of pervasive negative beliefs that biassed thinking in depression. Such negative thinking and their underlying beliefs are central elements of Beck's model.

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For Beck, negative thinking is not only common in people with depression, but is often the first thought to emerge in response to a particular situation or trigger. His model proposed that such thoughts emerged without effort and called them Negative Automatic Thoughts or NATs. Sometimes today, they are called Automatic Negative Thoughts or ANTs. But we'll use Beck's original label here.

NATs may take the form of words or images and typically occur as part of a stream of thought, mainly negative. We are looking here at thoughts that might characterise someone who is depressed. However, Beck considered that negative automatic thoughts are characteristic of all negative emotional states, even if the content of them is different.

For example, in anxiety, the thoughts are most likely to be related to threat, to you or others that you care about, such as "I'm going to faint" or "they will be injured." In anger, they are often about behaviour of other people and how they break rules that you hold to be important, such as "he is rude" or "she is selfish."

Finally, for example, with guilt, the thoughts may relate to breaking your own rules, such as "I should never have done that" or "I let her down."

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Here, we see an illustration of a student who has just received notice that they have failed a test. On the left is a typical stream of negative automatic thoughts. Similar thoughts might re-emerge later

when dwelling on what had happened or when talking with friends about their own results.

Such thoughts are considered almost like a commentary running in the background. We have them all the time. We may not even be aware that they're happening. Because they are our thoughts, we tend to accept and believe that they are true.

On the right are some alternative thoughts. No one is happy to fail, and these reflect frustration and disappointment. Importantly, however, there is no self-blame. Indeed, the thoughts include efforts to find an explanation for the failure.

The thoughts on the left are more typical of someone who is depressed or becoming depressed. Those on the right, a normal reaction to an upsetting event.

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Negative thoughts have a number of characteristics. First, by definition, they are negative in valence. Second, when we experience them, we feel bad. Third, we do not try to have them. They appear uninvited.

Fourth, they tend to be unhelpful and unconstructive. They rarely take a form that suggests some positive course of action. And fifth, they are believable. As we said before, they are our thoughts, so they must be true.

What is the relationship between negative automatic thoughts and depression? If we think negative thoughts for any period of time, we tend to experience low mood. Indeed, this is one of the ways in which transient negative mood can be induced experimentally in the laboratory, using procedures that you learned about in week three.

However, it follows that a repeated tendency to think negatively, there's a possible mechanism by which low mood may be maintained over a long period of time, as we see in depression. Conversely, when our mood is low, a negative thought is more likely to emerge than a positive one. This suggests a continuous, two-way process between our thinking and our mood.