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Unit No. 4

PROBLEM APPROACH

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ABSTRACT

In the Problem Approach, the basic idea is to determine whether the patient's behaviour is a maladaptive response to antecedent stimuli, or the result of cognitive bias. We use counter-conditioning and contingency management to deal with maladaptive response; we use cognitive therapy to trace cognitive distortions that give rise to Negative Automatic Thoughts (NATs) and take steps to counter these. The problem approach is integrated as Cognitive Behavioural Therapy (CBT). The SMART solution to problems is deployed when there is no underlying maladaptive behaviour or cognitive bias.

Keywords: Problem approach; Counter-conditioning; Contingency management; Negative Automatic Thoughts (NATs); Cognitive behavioural therapy (CBT)

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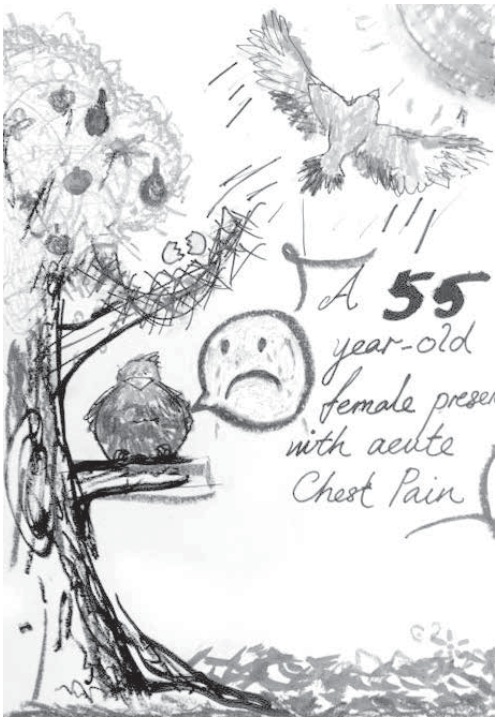
Figure 1. A 55-Year-Old Female with Acute Chest Pain



This picture shows a metaphorical acute chest pain, meaning that the acute chest pain is not the result of a coronary vessel occlusion or an insufficiency to meet sudden physical demands, e.g., walking rapidly.

The acute chest pain is the consequence of a child's impending departure that will create an empty nest syndrome for the parent. This acute chest pain is an emotional pain.

Source: *The Extended Consultation*, Second Edition 2024: Page 92

INTRODUCTION

The problem approach deals with situations where behaviour is unhealthy or *maladaptive*. It is about intervening to change the patient's unhealthy behaviour in response to a situation to a behaviour that is preferred. The basic assumption here is that we can all learn how to behave in certain ways in response to certain stimuli to ameliorate the situation.

Another assumption is that our thoughts and our behaviour are connected. Therefore, we can change behaviour by changing how we think about something.

If we find that the problem behaviour is not due to defective responses or thoughts, our intervention becomes more straightforward. Problem-solving strategies can be applied to achieve goals that should be **specific**, **measurable**, **achievable**, **realistic**, and **time-delimited**.

CORRECTIVE BEHAVIOURAL TECHNIQUES

Such behavioural techniques fall into two broad categories. **Counter-conditioning** is one category of techniques based on the work of Pavlov (1849-1936) and Wolpe (1915-1997). **Contingency management** is the other category, based on the work of B F Skinner (1904-1990). Before we explain the various behavioural techniques, we must first understand human behaviour.

THE A-B-C MODEL OF HUMAN BEHAVIOUR

The A-B-C model is a valuable tool to explain human feelings, thoughts, events, and behaviour. In this model, A is an **antecedent** or activating event. These are events or circumstances that trigger a **behaviour** B; C is/are the **consequence(s)** that follow the behaviour B. **Figure 1** describes an example.

Figure 1. Example of the A-B-C model

Antecedent →	Behaviour →	Consequence
Walking past a bubble tea shop	Purchasing a cup of bubble tea	Enjoyment of bubble tea, health risks such as weight gain due to high sugar content
Source: *The Extended Consultation*, Second Editon, 2024: Page 94		

COUNTER-CONDITIONING

Counter-conditioning is based on countering the **stimulus** and/or the **response**. We can also say that it works on

the *antecedent* and/or the behaviour, and is built on the principles of *classical conditioning* of Pavlov and Wolpe. The three methods of counter-conditioning are **stimulus control**, **assertive response**, and **reciprocal inhibition**.

Stimulus Control

By this we refer to the strategy of avoiding an undesirable behaviour, B, by avoiding the inciting antecedent, A. We introduce another alternate antecedent, A1, that instead leads to a desirable behaviour, B1.

Figure 1. Representation of stimulus control

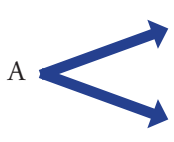
Before stimulus control	After stimulus control
A → B	A1 → B1
Source: *The Extended Consultation*, Second Edition, 2024: Page 94	

For example, a patient who is on a diet can plan to avoid the sight or smell of food, and hence avoid his food-seeking behaviour and inappropriate eating. In a similar way, controlling access to cigarettes is one way we can address a patient's tobacco habit. Another strategy is to avoid situations that the patient associates with smoking, such as a weekend meal in a coffeeshop.

Assertive Response

We can coach our patient to respond to certain antecedents in a way he would not usually do. In this way, he can increase the number of his possible behaviours to a situation. If a patient responds to A by behaving with B, he can be coached to acquire a new, assertive behavioural response, B1.

Figure 2. Representation of assertive response



Source: *The Extended Consultation*, Second Edition, 2024: Page 95

Let's say we have the example of a diabetic patient who is attending a buffet dinner. This is the antecedent, A. Instead of his usual buffet, B, which is to over-indulge in the food, we can coach him to respond in a different manner, B1, which is to control the meal portion, and also to avoid certain foods.

Let us have another example of a patient with insomnia. He can be coached to consider his bed (the stimulus, A) only with sleep (the response, B1), and not with any other activity such as reading or computer work, B, which he may have previously done. Hence if he is unable to sleep after a certain period (say 20 minutes), we teach him to get up and do something else. He should only return to bed when he is sleepy again.

Reciprocal Inhibition

This technique starts by identifying the antecedent, A, that produces the problem behaviour, as well as another antecedent, A1, that produces an opposite, or contradictory response. Pairing A and A1 will extinguish the undesirable behaviour B.

Figure 3: Representation of Reciprocal Inhibition

Before reciprocal inhibition	After reciprocal inhibition
A → B	A, A1 → B ✖
Source: *The Extended Consultation*, Second Edition, 2024: Page 95	

In **systematic desensitisation**, the problematic antecedent is presented at a low intensity, which is systematically increased, whilst simultaneously pairing that stimulus with the contradictory stimulus. For example, an anxiety-provoking stimulus can be paired with a calming stimulus, eventually achieving a graded reciprocal inhibition of the response. In this way, the undesired response is gradually reduced and eventually abolished.

Let us continue our example of the smoker who is trying to quit. Instead of having a meal at the coffeeshop in the weekend with his buddies, which he associates with an after-dinner smoke, he is encouraged to meet them for a walk instead. In this way, he gradually stops associating his buddies with cigarettes.

This differs from the technique of **flooding**, which is based on the principle that stressor responses to a stimulus will peak, and then decline, if we are not allowed to avoid it. With successful flooding, the patient learns to not fear the noxious stimulus on experiencing that the stressor effects of the stimulus will peak and then decline with little harm done. A commonly encountered example is to coach a person who has just quit smoking to resist the crave to light up. With successive attempts, the patient learns to cope better and better watching the stimulus peak and then decline.

CONTINGENCY MANAGEMENT

Contingency management is built upon the principles of ***operant conditioning***. B F Skinner developed the principle that behaviour is either strengthened or weakened, contingent, or depending, on the consequence.

In contingency management, the words "reinforcement" and "punishment" take on specific meanings.

- Reinforcement refers to increasing the likelihood of a behaviour, while punishment refers to reducing the likelihood of a behaviour. Reinforcement and punishment can be both positive and negative.

- Positive reinforcement strengthens a behaviour by presenting or introducing a pleasant consequence after the behaviour. An example would be rewarding a child with more pocket money when he completes a chore. Negative reinforcement strengthens a response through removing an unpleasant consequence of the behaviour. Consider a child who dislikes doing homework. The unpleasant consequence of him not finishing his homework is his parents' nagging. However, once the child completes his homework, his parent stops nagging at him. Hence, the likelihood of the child completing homework without complaints in the future is increased because he wants to avoid his parents' nagging.
- Positive punishment discourages a behaviour by presenting something unpleasant after the behaviour. For instance, giving a child detention after not finishing his homework. On the other hand, negative punishment reduces a behaviour by removing something pleasant after the behaviour. Confiscating a child's gaming device after failing an exam is removing a pleasurable activity for the child to discourage him from being lazy.

Table 2: Summary of Contingency management measures

Nature of stimulus	Introduced	Removed
Pleasant	Positive Reinforcement	Negative Punishment
Unpleasant	Positive Punishment	Negative Reinforcement
Source: *The Extended Consultation*, Second Edition, 2024: Page 97		

COGNITIVE DISTORTIONS

Cognitive therapy is directed at how we perceive and interpret the stimuli that we are presented with.

Contrary to what we like to think, we do not always react rationally in situations. Sometimes, certain cues from the situation will automatically trigger a response, which may be quite irrational or undesirable, in a "feed-forward" stance. We may not even be aware of the *negative automatic thoughts*, or NATs, that are triggered, because these are in our subconscious.

Consider the example of a wife whose husband forgets their wedding anniversary. Her NAT is triggered, telling her that *"he doesn't really love me."*

We can often trace these NATs to *cognitive distortions*, which can be thought of as inappropriate ways of perceiving or interpreting the situation. These inappropriate ways might have been appropriate, or useful, in the past. In other words, they were *adaptive* once. However, when we attempt to apply them automatically to present situations, they might become inappropriate.

Table 3 presents a list of possible cognitive distortions and how we usually see them played out. In general, the pattern of cognitive distortions can often be traced to rules and attitudes that were developed to deal with previous unpleasant life experiences.

Table 3: Cognitive Distortions and Common Parlance

Cognitive Distortion	**How It Presents**
Over-generalisation	"Things are black or white. It's all or nothing."
Catastrophising	Assuming the worst; expecting the worst
Selective Abstraction	Dwelling on the negatives
Disdaining	Disqualifying the positives
Mind Reading	Jumping to conclusions
Emotional Reasoning	"I feel it. Therefore, it must be so."
Must-abating	Guilt formation
Labelling & Mislabelling	Assigning attributes of group to the individual
Personalising	"Poor me…"
Source: *The Extended Consultation*, Second Edition, 2024 Page 98	

During a consultation, we can suspect that NATs are involved when we notice a shift in emotion or behaviour that is not congruent to the situation. For example, take the wife whose husband has forgotten her wedding anniversary. As a result of her NAT telling her she is unloved, we may note that she is dejected to an unexpected extent. To identify the NATs lurking in the background, we can use a systematic way of questioning our patient, to probe at her deeper issues. Such a technique has been described in the CAR-ACE framework of extended investigation in Chapter 5 of *The Extended Consultation*, Second Edition, 2024.

The NATs will cause a shift in emotion first, and by analysing the negative thought that caused the shift in emotion, we can resolve these NATs and the change in emotions they bring about. Once a client's NATs are identified, we can then dispute these NATs with the client through a process of evaluation. Once the client acknowledges that the NATs are affecting them, we can help them in assessing these thoughts objectively by evaluating the evidence supporting and refuting them. To do this, we can question the evidence supporting the NAT. So, to the upset wife above, we can ask, "What is the evidence for him falling out of love with you?" The process of examining their NATs can help question their core beliefs and assumptions and spark alternative interpretations that are more positive.

Diagrammatically, disputing NATs is represented in **Figure 4**.

Figure 4: Representation of disputing NATs

Before disputing NATs	After disputing NATs
A → Distortion → B → C	A → Dispute Distortion → B1 → C1
Source: *The Extended Consultation*, Second Edition, 2024: Page 99	

When we bring NATs into the open Johari window, our patient can better understand her emotional and behavioural response. In this way, the next time her husband forgets their anniversary, she can dispute her own NATs and control her response.

STRENGTHS-BASED CBT

There is a new development of using CBT principles and beliefs in positive work (Padesky, 2013). New beliefs and behaviours are developed, which promote positive growth, using imagery, client-generated metaphors, and therapeutic use of smiling and humour. Additionally, by working with generated and signature strengths, CBT can go beyond treating the problematic situation, to building resilience. Positive automatic thoughts, or PATs, are generated instead of NATs. Behavioural Experimentation is used, in which positive responses are rehearsed before being played out in real situations. The positive approach is described in Chapter 11 of *The Extended Consultation*, Second Editon, 2024.

There are two vignettes of how Dr Lim used CBT in Dorothy's case. They are "Mum and the Hamsters" (see below) and "Old Man in Chinatown", in Unit 2. Both conversations are examples of disputing NATs.

Figure 5. Conversation on "Mum and the Hamsters"

T: The hamsters belonged to your elder sister, who has moved to her own home. You mentioned that your sister's hamsters were displaying signs of severe boredom. How did you know?

C: *The hamsters were, like, very fidgety and not eating normally. I looked it up on the internet and it was obvious that they were suffering from boredom from the way they ran around. I told mum that she had to do something or they would die and Chieh (sister) would be upset. What mum did was really pitiful. All she did was coo to them in that shrill irritating voice of hers. I think the hamsters got worse.* **[Cognitive distortion of emotional thinking. Felt that mum was incompetent and then convinced herself that the hamsters were bored to justify her feeling]**

T: How did the hamsters' mental health become your mother's responsibility?

C: *She agreed to look after them. She is an adult and should ease their suffering. I am irritated that she is incapable of even caring for living things, never mind her children. [It's] like she could not care for us when we were young. The hamsters will suffer depression, starve, and die. Chieh will be upset.* **[Cognitive distortion of overexaggeration]**

T: Did Chieh instruct your mum about the upkeep of the hamsters?

C: *Yes, about feeding them and cleaning the cage.*

T: Why not ask Chieh if there are additional things to watch for, to see whether her hamsters are bored and what to do?

C: *I asked her by SMS tonight but [it's] not much use as my mum is so incompetent. I lost my temper and scolded her for trying to act cute and not easing their suffering.*

T: So you scolded her because she is not taking care of the hamsters for Chieh. Why not tell Chieh to talk to mum directly?

C: *Ok, since they are not my hamsters anyway.*

T: What would happen to the hamsters if they just had food and hygienic conditions, even if they were bored? **[Testing consequences of NAT]**

C: *I don't know for sure.*

T: So on reviewing, you now see that there are some assumptions and negative automatic thoughts that you made. What is the intensity of your belief and bad feelings now?

C: *Much less. But I still think mum is incompetent; [she] cannot relate to living things. My sister thinks so too. We think that mum and dad do things deliberately to harm us. We made a pact never to have children.*

T: If you continue to have the negative thoughts, you will continue to be angry. You can control how you feel towards it by testing your thoughts. Record such thoughts and bring it along every time you come. C: *The irritating way she coos loudly in her shrill voice to the hamsters in front of me still irritates me. I think she is trying to show to me that she knows how to care, after my outburst that the hamsters would die because of her.* **[Cognition distortion of personalisation]** T: Ok, why not try an experiment. The next time she does this, go to your room, shut the door and see what happens. C: *Ok.*
Source: *The Extended Consultation*, Second Edition, 2024: Pages 101-102

Dorothy reported during the next session that her mother behaved in the same way even when she (Dorothy) did not seem to be around. She felt that the behaviour was attention-seeking and pathetic, and found it irritating. However, she agreed that her mother's tone of voice and behaviour were consistent with her mother's usual style, and that the "display" was not directed at Dorothy. She also agreed that the hamsters were thus far unharmed.

As mentioned in Chapter 7 of *The Extended Consultation* Second Edition, we can use CAR-ACE inquiry in the problem approach to help us identity these cognitive distortions and challenge them. **Table 4** shows how CAR-ACE was used in "Mum and the Hamsters", and the process of disputing Dorothy's NATs are summarised in **Table 5**.

Table 4. CAR-ACE inquiry in "Mum and the Hamsters"

Situation	The hamsters are displaying severe signs of boredom.
Clarification (C)	Sister married, moved out of family home, and left the hamsters in her mother's care. Dorothy researches online and thinks they are displaying severe signs of boredom and are going to die.
Assumptions (A)	The hamsters are going to die if she does not do anything. It is her mother's responsibility to care for the hamsters.
Rationale (R)	Sister placed hamsters in mother's charge; mother is the only one who can handle them
Alternatives (A)	She feels that this is a reinforcement of her assumption that her mother is incapable of caring for living things.
Consequences (C)	Worst case: The hamsters will die; Dorothy and her sister will be angry at her mother. Best case: Hamsters will be alright and continue to live.
Experience (E)	The hamsters survived.
Source: *The Extended Consultation*, Second Edition 2024: Page 103	

Table 5. Disputing NATs in "Mum and the Hamsters"

	Situation A	**Situation B**
Situation	Hamsters perceived to be stressed.	Mother was cooing at hamsters in a weird way.
Automatic thoughts	Mother is irresponsible and incompetent to care for living things, including children.	She is attention-seeking.
Meaning of automatic thoughts	She fails as a mother.	She is not acting like an adult.
Emotions	Anger and sadness.	Anguish and sadness.
Behaviour	Disapproval of mother's behaviour.	Disapproval of mother's behaviour.
Source: *The Extended Consultation*, Second Edition 2024: Page 104		

After five sessions, Dr Lim observed that Dorothy had gained insight into her issues and invited Dorothy to reflect on the sessions and how they had changed her perspectives. Dorothy said that in the first two sessions, she had felt even more agitated and had felt like *"wringing [his] neck"*, as *"I was dying of thirst and you refused to give me water."* Instead, Dr Lim kept challenging her with his extended inquiry questions. She learnt to look for water by exploring her negative automatic thoughts and her troubled relationships with her parents.

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LEARNING POINTS

- **The basic idea in the problem approach is to determine whether the problem behaviour is a maladaptive response to antecedent stimuli or the result of cognitive bias**
- **We use two broad behavioural techniques to deal with the maladaptive response: counter-conditioning and contingency management**
- **With negative automatic thoughts arising from cognitive distortions, we use cognitive therapy to trace the cognitive distortions and take steps to counter them.**
- **The problem approach is integrated as Cognitive Behavioural Therapy (CBT).**
- **The SMART solution to problems may be deployed when there is no maladaptive behaviour or cognitive bias at play.**
- **Positive psychology can be incorporated into CBT to construct new positive beliefs and behaviours, and to augment existing strengths**