Module 8

Therapeutic Approaches in Social Work Interventions

Behavioural Therapy / Behavioural Modification

Quadrant 1

1. Introduction

In the last few years some writers have used the term *behaviour therapy or behaviour modification* to refer to almost any practice that alters human behaviour. However, this is not the case. More specifically, Behavioural Therapy does not entail brainwashing or mind control. Practitioners who use behaviour modification do not use psychosurgery or electroshock therapy and only occasionally use drugs as a temporary adjunct to a change procedure. Rather, behaviour modification involves structured learning in which new skills and other behaviours are learned, and at the same time undesired reactions and habits are reduced. The use of behaviour modification motivates and encourages the client to move towards the desired changes. Both the experimentally based Behavioural Therapy and Behaviour Modification focus on increasing the desirable or wanted behavior and removal of the undesirable or unwanted behavior in the client.

Objectives:
This module will help the reader to

- Learn the origin of behaviour modification as a therapy to change human behaviour.
- Understand the characteristics of behavior therapy.
- Appreciate the principles and procedures of behavior modification to change socially significant behaviour with the goal of improving some aspect of a person's life.

2. Origin

Following are some of the major figures who were instrumental in developing the scientific principles on which Behavioural Therapy is based.

2.1 **Ivan P. Pavlov (1849–1936)** Pavlov conducted experiments that uncovered the basic processes of respondent conditioning. He demonstrated that a reflex (salivation in response to food) could be conditioned to a neutral stimulus. In his experiments, Pavlov presented the neutral stimulus (the sound of a metronome) at the same time that he presented food to a dog. Later, the dog salivated in response to the sound of the metronome alone. Pavlov called this a *conditioned reflex* (Pavlov, 1927).

2.2 **Edward L. Thorndike (1874–1949**) Thorndike's major contribution was the description of the *law of effect*. The law of effect states that a behaviour that produces a favourable effect on the environment is more likely to be repeated in the future. In Thorndike's famous experiment, he put a cat in a cage and set food outside the cage where the cat could see it. To open the cage door, the cat had to hit a lever with its paw. Thorndike showed that the cat learned to hit the lever and open the cage door. Each time it was put into the cage, the cat hit the lever more quickly because that behaviour—hitting the lever—produced a favourable effect on the environment: It allowed the cat to reach the food (Thorndike, 1911).

2.3 **John B. Watson (1878–1958)** In the article "Psychology as the Behaviourist Views It," published in 1913, Watson asserted that observable behaviour was the proper subject matter of psychology, and that all behaviours were controlled by environmental events. In particular, Watson described a stimulus response psychology in which environmental events (stimuli) elicited responses. Watson started the movement in

psychology called *behaviourism* (Watson, 1913, 1924).

***2.4* B. F. Skinner (1904–1990)**. Skinner expanded the field of behaviourism originally described by Watson. Skinner explained the distinction between respondent conditioning (the conditioned reflexes described by Pavlov and Watson) and operant conditioning, in which the consequence of behaviour controls the future occurrence of the behaviour (as in Thorndike's law of effect). Skinner's research elaborated the basic principles of operant behaviour. In addition to his laboratory research demonstrating basic behavioural principles, Skinner wrote a number of books in which he applied the principles of behaviour analysis to human behaviour. Skinner's work is the foundation of behaviour modification.

2.5 Early Behavioural Therapy Researchers

After Skinner laid out the principles of operant conditioning, researchers continued to study operant behaviour in the laboratory. In addition, in the 1950s, researchers began demonstrating behavioural principles and evaluating behaviour modification procedures with people. These early researchers such as John B. Watson who wrote the book Psychological Care of Infant and Child in 1928 and Bowlby's monograph on Maternal Care and Mental Health published in 1951, set out the maternal deprivation hypothesis studied the behaviour of children, adults, patients with mental illness and individuals with mental retardation. Since the beginning of behaviour modification research with humans in the 1950s, thousands of studies have established the effectiveness of behaviour modification principles and procedures.

2.6 Major Publications and Events

A number of books heavily influenced the development of the behaviour modification field. In addition, scientific journals such as SEAB, Society for the Experimental Analysis of Behaviour; JEAB, Journal of the Experimental Analysis of Behaviour; AABT, Association for Advancement of Behaviour Therapy; JABA, Journal of Applied Behaviour Analysis were developed to publish research in behaviour analysis and behaviour modification, and professional organisations started to support research and professional activity in behaviour analysis and behaviour modification.

3. **Characteristics of Behavioural Therapy**

Following are the characteristics of behaviour therapy/ modification:

1) **Focus on behaviour:** Behavioural Therapy procedures are designed to change behaviour, not a personal characteristic or trait. Therefore, behaviour modification deemphasises labelling. For example, behaviour modification is not used to change autism (a label); rather, behaviour modification is used to change problem behaviours exhibited by children with autism. Behavioural excesses and deficits are targets for change with behaviour modification procedures. In behaviour modification, the behaviour to be modified is called the *target behaviour*.

2) **Procedures based on behavioural principles:** Behavioural Therapy is the application of basic principles originally derived from experimental research with laboratory animals.

   The scientific study of behaviour is called the *experimental analysis of behaviour*, or behaviour analysis. The scientific study of human behaviour is called the experimental analysis of human

behaviour, or *applied behaviour analysis*.

Behavioural Therapy procedures are based on research in applied behaviour analysis that has been conducted for more than 40 years.

3) **Emphasis on current environmental events:** Behaviour modification involves assessing and modifying the current environmental events that are functionally related to the behaviour. Human behaviour is controlled by events in the immediate environment, and the goal of behaviour modification is to identify those events. Once these controlling variables have been identified, they are altered to modify the behaviour. Successful behaviour modification procedures alter the functional relationships between the behaviour and the controlling variables in the environment to produce a desired change in the behaviour.

4) **Precise description of behaviour modification procedures:** Behaviour modification procedures involve specific changes in environmental events that are functionally related to the behaviour.

   For the procedures to be effective each time they are used, the specific changes in environmental events must occur each time. By describing procedures precisely, researchers and other professionals make it more likely that the procedures will be used correctly each time.

5) **Treatment implemented by people in everyday life:** Behaviour modification procedures are developed by professionals or paraprofessionals trained in Behavioural Therapy. However, behaviour modification procedures often are used by people such as teachers, parents, job supervisors, or others to help people change their behaviour. People who utilize behaviour modification procedures should do so only after sufficient training. Precise descriptions of procedures and professional supervision make it more likely that parents, teachers, and others will implement procedures correctly.

6) **Measurement of behaviour change:** One of the hallmarks of behaviour modification is its emphasis on measuring the behaviour before and after intervention to document the behaviour change resulting from the behaviour modification procedures. In addition, ongoing assessment of the behaviour is done well beyond the point of intervention to determine whether the behaviour change is maintained in the long run.

7) **De-emphasis on past events as causes of behaviour:** As stated earlier, behaviour modification places emphasis on recent environmental events as the causes of behaviour. However, knowledge of the past also provides useful information about environmental events related to the current behaviour.

8) **Rejection of hypothetical underlying causes of behaviour:** Although some fields of psychology, such as Freudian psychoanalytic approaches, might be interested in hypothesised underlying causes of behaviour, such as an unresolved Oedipus complex, behaviour modification rejects such hypothetical explanations of behaviour. Skinner (1974) has called such explanations "explanatory fictions" because they can never be proved or disproved, and hence unscientific. These supposed underlying causes can never be measured or manipulated to demonstrate a functional relationship to the behaviour they are intended to explain.

4. Observing and Recording Behaviour

One fundamental aspect of Behavioural Therapy is measuring the behaviour that is targeted for change. Measurement of the target behaviour (or behaviours) in behaviour modification is called behavioural

assessment. Behavioural assessment is important for a number of reasons.

Measuring the behaviour before treatment provides information that can help determine whether treatment is necessary.

Behavioural assessments provide information that helps in selecting the best treatment. Measuring the target behaviour before and after treatment allows determining whether the behaviour changed after the treatment.

5. RESPONDENT CONDITIONING AND COUNTERCONDITIONING

5.1 Respondent Conditioning

Someone smiling at us produces a pleasant feeling. Pictures of good food may literally cause our mouths to water. It is not instinctual that these stimuli elicit these responses; hence it probably is learned. Perhaps one reason a smile now elicits a pleased feeling is that in a person's learning history the stimulus of a smile was associated with other stimuli, such as affection, which produced a pleasant feeling. The stimulus of the image of the food was associated with the stimulus of the taste of the food, with the taste eliciting salivation. Eventually the image of the food came to elicit salivation. The image of an automobile may have been paired with an anxiety producing stimulus such as seeing a close relative die in an automobile accident. The learned associations may have been gradually built up over time, as in the case of the smile and affection, or may have followed a single dramatic learning experience, as in the case of the automobile accident.

This type of learning is called *respondent conditioning,* the learning model in which one stimulus, as the result of being paired with a second stimulus, comes to elicit a response it did not elicit just previously. Usually this new response is similar to the response previously elicited only by the second stimulus. In this model the first stimulus is called the *conditioned stimulus* (CS) and the response it comes to elicit is called the *conditioned response* (CR), while the second stimulus is called the *unconditioned stimulus* (UCS) and the response it already elicited is called the *unconditioned response* (UCR). For example take the case of a child who is gradually developing a dislike for school (CS) because the teacher emphasises the use of corporal punishment (UCS), which makes the child anxious and fearful (UCR). This will be the first step for the children to develop school phobias.

Through association of the CS and UCS, the CS comes to provide information about the occurrence of the UCS. The more probable it is the UCS will follow the CS, the stronger the respondent conditioning and the more probable it is the CR will follow the CS. After the CR begins to occur, it may be rewarded or punished, which affects its occurrence. In this sense the CR is often a response the person makes to prepare for the UCS. Respondent conditioning is often called *classical conditioning* and sometimes *Pavlovian conditioning.*

In human behaviour most of the things that are rewarding (e.g., attention, approval, money, good grades) or punishing (e.g., Ostracism, criticism) acquired their affect through respondent conditioning and are called *conditioned reinforcement* and *conditioned punishment*. In respondent conditioning there are two ways of dealing with undesired behaviours: (i) extinction and (ii) counterconditioning.

5.2 Extinction

Respondent conditioning is accomplished by establishing a contingency (relationship) between the CS

and the UCS. The CS predicts to a certain degree the onset of the UCS.

If we terminate this contingency so that the CS is not associated with the UCS, eventually the CS will no longer elicit the CR. This process is called *extinction.*

5.3 Spontaneous Recovery

If a small child is scratched (UCS) by a cat (CS) and hurt (UCR), then the child may develop a fear (CR) of cats. If the child now onwards encounters cats without anything bad happening, then the fear may extinguish. Sometimes following extinction, the CR may gain in strength over time. This is called spontaneous recovery. However, in practical situations, this is usually minimal; and with further extinction the CR will no longer reappear.

5.4 Procedure for Producing Extinction

There are basically two ways of carrying out extinction:

i) gradual and

ii) not gradual.

The gradual approach consists of moving through a sequence of steps, called a *hierarchy,* toward the object or situation that elicits the strongest CR. The alternative is to bypass most of these intermediate steps and confront the final situation right away.

A variation of the non gradual approach involves bombarding the person with the anxiety producing stimuli and / or keeping the person in the anxiety situation without escape. This approach is called *flooding.*

Although extinction is applicable to any respondently conditioned response, it is most used with anxieties and fears. People are continually confronted with situations that elicit some anxiety, such as standing up to the boss, making a presentation before a class, or talking about something personal. If the person can approach and be in the anxiety situation without anything unpleasant happening, then some of the anxiety should extinguish.

5.5 Counter Conditioning

Counter conditioning is the reduction of undesired elicited responses by respondently conditioning incompatible responses to the eliciting situations. The first step is to determine the situations that elicit the undesired responses, as for example the sight of spiders may cause excessive anxiety in some people.

The second step is to determine or establish ways to elicit a response incompatible with and dominant to the undesired response, such as some forms of relaxation may be to the spider anxiety.

Finally, the mismatched response is conditioned to the stimuli, eliciting the undesired response, as the relaxing stimuli may be paired with the stimuli to avoid the fear associated with spiders. This counter conditioning is continued until the undesired response that is fear of spiders has been adequately reduced, usually until it no longer occurs.

Counter conditioning is often used to reduce unwanted emotional reactions such as anxiety, anger, or jealousy. Most clinical cases have an anxiety component that needs to be handled in some way. *Desensitisation* is the counter conditioning of anxiety with relaxation.

In other situations, the undesired response is a rewarding, approach response, as occurs in some aspects of alcoholism, drug-addiction, and over-eating. The sight of a bar may elicit a craving for a drink or the taste of one cigarette may lead to smoking another. In these cases, counterconditioning may involve conditioning in an unpleasant or aversive response to the stimulus situations eliciting the approach response. This is called *aversive counter conditioning*.

5.6 OPERANT CONDITIONING

Learning and motivational changes are based on events that follow behaviour and generally a result of the behaviour. A worker receives his salary following completion of a certain number of hours of work. A student receives a particular grade on a test as a result of achieving a certain test score. A child is reprimanded for using certain words. In these cases there is some relationship, called a *contingency*, between the person's behaviour (working a number of hours, achieving a test score, using certain words) and some resultant or *contingent* event (salary, grade, reprimand).

Operant conditioning is also called instrumental conditioning. It is the learning model based on the effects on behaviour of contingent events and the learning of the nature of the contingency. If the contingent event makes it *more* probable that the person will behave in a similar way when in a similar situation, the event is called a *reinforcer*.

5.7 Reinforcement and Punishment

Following the behaviour, the contingent event may come on or increase *(positive)*, or the contingent event may go off or decrease *(negative)*. This produces four combinations:

i) positive reinforcement,

ii) negative reinforcement,

iii) positive punishment, and

iv) negative punishment.

i) Positive reinforcement is an increase in the probability of a behaviour due to an increase in the contingent event. John, a new manager in a company, began praising workers for submitting their reports on time. In a couple of weeks, this reinforcement by praise greatly increased on-time reports. Positive reinforcement, when appropriately used, is one of the most powerful of all behaviour change tools.

ii) Negative *reinforcement* is an increase in the probability of behaviour due to a decrease in the contingent event. A person learns to use his relaxation skills to offset anxiety, with the decrease in anxiety being a negative reinforcer. Thus negative reinforcement is based on the decrease of something undesired such as pain or anxiety. Negative reinforcement is not punishment; reinforcement is an increase in the probability of behaviour, while punishment is a decrease.

Negative reinforcement is the basis of *escape conditioning*, learning to escape an aversive situation and being reinforced by the decrease in aversion. Politicians may avoid important political issues in which no matter what position they take a moderate number of people will get mad and perhaps later vote against them. Votes and money are two strong reinforcers accounting for much political behaviour.

Positive punishment is a decrease in the probability of behaviour due to an increase in the contingent event. This is what most people mean when they use the word "punishment." If every time Ali tells his

algebra teacher he is having trouble keeping up with the class he is then given extra remedial Work, then the extra work may act as a punisher resulting in a decrease in asking for help.

Negative punishment is a decrease in the probability of behaviour due to a decrease in the contingent event. This corresponds to a decrease in something desirable following some behaviour. If every time a person stutters, he briefly turns off a movie he is watching and if this results in a decrease in stuttering, then the offset of the movie is a negative punisher for stuttering.

5.8 OPERANT CONDITIONING PROCEDURES

Now we turn to behaviour change strategies that are based on operant Conditioning. This includes altering the stimulus situations in which behaviours occur *(stimulus control),* getting desirable behaviours to occur and reinforcing them, extinguishing and/or punishing undesired behaviours and reducing the reinforcing effects of events that support undesired behaviours.

Stimulus Control

Operant behaviours do not occur in a vacuum; they occur more in some Situations than others and are triggered by external and internal cues. That is, for all operant behaviours there are stimuli, called *discriminative stimuli* (SD), which tend to cue the response. Discriminative stimuli do not elicit the behaviour, as the CS elicits the CR, but rather set the occasion for the behaviour, making it more or less probable the behaviour will occur. Thus we can often alter operant behaviour by altering discriminative stimuli.

Approach 1: One approach is to remove discriminative stimuli that cue undesired behaviours. As part of a program to reduce smoking we might remove those stimuli that increase the tendency to smoke, such as ashtrays on the table. When trying to lose weight we might change the route from work to home so it does not pass the pastry shop.

Approach 2: A second stimulus control approach, called *narrowing*, involves restricting behaviours to a limited set of stimuli. A person who overeats probably is eating in many situations. This results in many discriminative stimuli (e.g., reading, watching TV, having a drink, socialising) cuing the tendency to eat. To cut back on this, we might restrict the eating to one place and certain times. Or in reducing smoking, we might restrict smoking to when the client is sitting in a particular chair in the basement.

Approach 3: A third stimulus control approach involves introducing stimuli that tend to inhibit the undesired behaviour and/or cue behaviours incompatible with the undesired behaviour. A person trying to lose weight might put signs and pictures on the refrigerator door. Or a person who has quit smoking may tell all his friends he has quit. Then the presence of one of his friends may be a stimulus to not smoke.

Because a person's behaviour gets tied into the stimuli and patterns of his daily life, it is often desirable to alter as many of these cues as possible. This *stimulus change* may involve a wide range of things such as rearranging furniture, buying new clothes, painting a wall, eating meals at different times, or joining a new club.

5.9 Increasing Desirable Behaviours

The most common operant approach consists of reinforcing desirable behaviour. And this should generally be a component of all operant programs, even when the emphasis is on some other approach, such as extinction.

Reinforcement

An important point is that we must identify what actually is reinforcing to the person, not what we expect should be reinforcing to him. A good approach to determine the reinforcers is to ask the person what is reinforcing. Similarly, events we may consider not to be reinforcing in fact are. A common example is the teacher who yells at a student as an intended punishment, when really the teacher may be reinforcing the student with attention and/or causing the student to receive social reinforcement from his peers for getting the teacher mad.

Sometimes something will not be reinforcing to the client unless he has had some moderately recent experience with it. Talking on the telephone to a relative may not be reinforcing if he has not used the telephone for years. Playing a game may not be reinforcing to a small boy who is not familiar with the game. In such cases, it is often desirable to prime the client by giving him some free experience with the reinforcer before the operant contingencies are established. This procedure is called *reinforcer sampling* (Ayllon & Azrin, 1968a).

A variation of reinforcement is *self-reinforcement*, reinforcement People give themselves. This may be a form of covert verbal reinforcement (e.g., "That was good work.") or a more tangible reinforcer such as buying oneself some treat. Self-reinforcement is often an important part of self control processes in which people reinforce themselves for desired behaviour.

6. Strategies for Initiating Behaviours

To reinforce desirable behaviour the behaviour must first occur. If a catatonic has not said anything for five years, it would not be an effective approach to wait for him to say something to reinforce his talking. Thus an important part of the operant approach is to use ways to help initiate the behaviour to be reinforced. There are many ways to do this, including shaping, modeling, fading, punishment, and guidance.

6.1 Shaping

Shaping, also called *successive approximation*, is the reinforcing of behaviour that gradually approximate the desired behaviour. The key to shaping is the use of successive approximations that are small enough steps so that there is an easy transition from one step to the next. If one is cultivating the ability to meditate for long periods of time, it may not be desirable to start trying to meditate for an hour. An alternative would be to begin at ten minutes and add one minute every other day, gradually shaping meditation for longer periods of time.

6.2 Modeling

Modeling involves a change in a person's behaviour as a result of observing the behaviour of another person, the *model*. This way of initiating a behaviour, particularly with a child, is to have the person or the child observe someone else doing the desired behaviour and encourage imitation of the same behaviour. A client who is learning how to interview for a job may first watch the practitioner model an appropriate behaviour in a simulated job interview. Or a teacher who praises one student for good behaviour may find other students imitating the same behaviour.

Modeling and shaping combine together well. For example, in *model-reinforcement counseling* the client listens to a tape recording of a counseling interview in which another person is reinforced by a counselor

for making a certain class of statements. Then the client is reinforced for making these types of statements. This approach has been used to increase information seeking behavior of high school students engaged in career planning (Krumboltz & Schroeder, 1965), and deliberation and deciding about majors by college students (Wachowiak, 1972).

6.3 Fading

Fading involves taking a behaviour that occurs in one situation and getting it to occur in a second situation by gradually changing the first situation into the second. A small child might be relaxed and cooperative at home, but frightened and withdrawn if suddenly put into a strange classroom. This fear can be circumvented if the child is gradually introduced to situations that approximate the classroom. Shaping involves approximations on the response side, while fading involves approximations on the stimulus side.

6.4 Punishment

Punishment of a specific behaviour suppresses that behaviour and results in the formation of other behaviours. Perhaps one of these other behaviours is a desirable behaviour that can be reinforced. This is not a particularly efficient or desirable approach in most cases as it may cause negative emotions in the individual such as anger, resentment or irritability.

6.5 Guidance

Guidance consists of physically aiding the person to make some response. Thus as part of contact desensitisation or flooding, the client may be guided to touch a feared object. Guidance may be used to help a client learn a manual skill or help a child who is learning to talk how to form his lips to make specific sounds.

7. CONTINGENCY CONTRACTING

A variation of operant procedures is *contingency contracting,*

This is a program in which the operant contingencies are well specified and clearly understood by everyone involved. These contingencies, reinforcements and punishments that can be expected for different behaviours, are formalised into a contract which is often written. Sometimes the contract is imposed on people; but often the best approach is to negotiate, as much as possible, with all people involved about the nature of the contract. Thus the role of the behaviour modifier is often consultant and negotiator about contracting.

7.1 Reinforcement for Contingency

Reinforcements may include opportunity to spend a certain amount of time in a reward area or opportunity to work on a special project.

Ideally the teacher has negotiated all aspects of the contract with the students and all students fully understand the contract.

Consider the contingencies operative in many classrooms below the college level. To cite an example, let us say that teachers have a certain amount of material they wish to cover and work they wish completed. For the students, the contingent event for completing some work is more work. Hence the students learn to work well below capacity, the teachers push for more to be done, and a certain amount of antagonism develops between teachers and students. Now with contingency contracting, the teacher presents the work

that needs to be done and asks the students what reinforcements they would like for completing the work and what sort of classroom rules can be established to facilitate this program. As a result, the students and the teacher establish a mutually satisfactory contract and work together.

Such an approach generally results in a decrease in behaviour problems, an increase in the students liking the classroom setting, and the students doing the work much faster than would be expected.

7.2 Consistency in Contingency Contracting

Consistency is a critical aspect of most behaviour change programs, while inconsistency can generate many problems. If a parent or teacher is consistent in dealing with a child, the child can easily learn what contingencies are operative and feels comfortable understanding how part of the world works. Inconsistency, on the other hand, may produce uncertainty, anxiety, tantrums, psychosomatic illness, learned helplessness, and related problems. Children and others also engage in *rule-testing*, the intentional breaking of a rule to determine if the contingency is in effect.

7.3 Token Economies

In some contingency contracting programs the client is reinforced with *tokens* (e.g., poker chips, stars or marks on a chart, punch holes in a special card) that can later be exchanged for a choice of reinforcers.

Contingency contracting programs using tokens are called *token economies.* There are now a large number of such programs in a wide variety of settings. The tokens a person earns by completing his part of the contract are eventually exchanged for a choice of reinforcers from a *reinforcement menu.*

By having a large number of items and privileges on this menu the tokens are reinforcing for most of the people most of the time, even though people will buy different things at different times. This reduces problems of a person satiating on any particular reinforcer or continually trying to determine what is currently reinforcing to any person.

The tokens are often easily dispensed and can be given fairly immediately after the desired behaviour. For example, a teacher may walk around a classroom putting checks on each student's small clipboard for appropriate behaviour and accomplishment. These checks are immediately reinforcing, even though they will not be cashed in until later.

8. SUMMARY

- Behavioural Therapy involves analysing and manipulating current environmental events to change behaviour. A behavioural excess or behavioural deficit may be targeted for change with behaviour modification procedures. Behaviour modification procedures are based on behavioural principles derived from scientific research. B. F. Skinner conducted the early scientific research that laid the foundation for behaviour modification.

- Behaviour modification procedures often are implemented by people in everyday life. Behaviour is measured before and after the behaviour modification procedures are applied to document the effectiveness of the procedures. Behaviour modification de-emphasises past events and rejects hypothetical underlying causes of behaviour.

- Respondent conditioning is the learning model in which a stimulus situation comes to elicit a

relatively new response or increase in response because of association with other stimulus situations. Formally, the conditioned stimulus (CS) comes to elicit the conditioned response (CR) because of the person learning that the CS is associated with (provides information about) the unconditioned stimulus (UCS), which elicits the unconditioned response (UCR).

- Respondent conditioning is sometimes used in behaviour modification to establish or strengthen a response, as in the treatment of enuresis. Undesired respondent behaviour is changed by respondent extinction or counterconditioning, both of which may or may not be done gradually with a hierarchy of intermediate steps.

- Emphasis of operant conditioning is on changes in the probability of a specific behaviour in the presence of specific stimuli as a result of events contingent on the behaviour. A reinforcer increases the probability of a behaviour it is contingent on; a punisher decreases the probability.

- The contingent event is usually dependent on the behaviour and occurs because of the behaviour. Procedures to get a specific behaviour to occur and to reinforce it include shaping, modeling, fading, punishment, and guidance. Initial learning is usually the best when the reinforcer occurs immediately after every example of the correct behaviour (short delay of reinforcement, continuous schedule of reinforcement).

- Extinction is the return of the probability of a specific behaviour toward its initial value (baseline) after the contingent events have been removed. Use of an intermittent schedule of reinforcement increases resistance to extinction.

- Punishment as a change procedure should generally be avoided because of undesirable side effects; but it can be used effectively to disrupt or suppress an undesired behaviour while a desired alternative is being strengthened. Positive punishment procedures include administering an aversive event and overcorrection, while negative punishment includes a withdrawal or loss of a reinforcer (response cost) and a period of time during which reinforcers cannot be acquired (time out).

- The reinforcing effects of an event can be reduced by aversive counterconditioning or stimulus satiation. Nervous habits can be reduced by negative practice and habit reversal. Contingency contracting is a formalised operant program in which the contingencies are well specified and usually negotiated.

- Behavioural Therapy has been applied successfully to all aspects of human behaviour, including developmental disabilities; mental illness; education and special education; rehabilitation; community psychology; clinical psychology; business, industry, and human services; child management; prevention; sports psychology and health-related behaviours.