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## CHAPTER 3

# BEHAVIOR THEORY AND SOCIAL WORK TREATMENT

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Behavioral social workers practice in nearly every type of organization and environment and with a variety of populations, problems, and issues requiring change. Extensive behavioral literature illustrates the compatibility of behavior theory with social work values and treatment. Most important, the outcome research studies demonstrate the effectiveness of behavior therapy in contemporary social work problems and practice. A review of the empirical research in social work and related fields of service identifies behavioral elements in social work interventions with individuals, couples, families, small groups, and communities (Thomlison, 1984a). As well, the application of single-system research designs to the evaluation of social work practice has taken on significant prominence (Thyer & Boynton Thyer, 1992). These developments suggest that the impact of behavior therapy on social work practice has been more than a passing interest of the past two decades. The literature addresses the theory, application, monitoring, and practice of behavior therapy in social work. This chapter is therefore written with two primary objectives in mind: (1) to inform social work practitioners of the origins and development of behavioral social work and of its basic assumptions, conceptual framework, procedures, and techniques and (2) to illustrate common applications of behavioral theory to social work practice. As well, the writers hope to inspire social workers to integrate social learning theory and behavioral therapy into their social work treatment model.

## DEVELOPMENT OF BEHAVIORAL SOCIAL WORK

Behavior therapy† refers to the systematic application of techniques intended to facilitate behavioral changes that are based principally, but not exclusively, on the con-

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†Some argue that the concepts of behavior therapy and behavior modification are differentially applied (Wilson, 1990). For the purposes of this chapter we prefer behavior therapy but the concepts will be used synonymously.

What is  
BSW?



ditioning theories of learning. It may be argued that it is more appropriate to refer to the behavior therapies than to imply that a single method of behavior therapy exists. Behavior therapy is, however, characterized by multiple theories and techniques, in the same way as other "therapies" such as psychotherapy, marital therapy, and family therapy.

1. Behavioral practice traces its beginnings to the first quarter of this century in the work of Ivan Pavlov on respondent or classical conditioning; of Thorndike, Hull, Watson, and B. F. Skinner on operant conditioning; and of Bandura on social learning theory (Franks et al., 1990). The contributions of Pavlov and Skinner are well documented in both the behavioral and social work literature and need only be mentioned here. It is important to recognize that these two founders of modern behavior therapy identified and studied two distinct behavioral processes.

A Pavlov's studies of the salivation reflex of dogs are familiar to most students of human behavior. The basic experimental procedure for the learning process involved placing food within the view of the dog. Salivation was elicited and the relationship between the unconditioned stimulus (food) and the unconditioned response (salivation) was established. An arbitrary event for example, a bell, was then established to occur at the same time as the presentation of the food. Over a number of such pairings, the bell (the conditioned stimulus) took on the power to elicit the response of salivation (the conditioned response). This behavioral learning process is referred to as respondent conditioning and remains the fundamental theoretical explanation for a variety of anxiety and phobic disorders in contemporary behavior therapy (Thomlison, 1984b).

B Skinner's contribution to behavior therapy was initially motivated by a different set of objectives than those of Pavlov. Skinner was dedicated to the scientific study of human behavior. While he did not deny the possibility of the internal mechanisms postulated by other theorists, he argued that human behavior could be empirically investigated only through the measurement of observable behavior. He expressed the belief underlying his approach as follows: "If we are to use the methods of science in the field of human affairs, we must assume that behavior is lawful and determined. We must expect to discover that what an individual does is the result of specifiable conditions and that once these conditions have been discovered, we can anticipate and to some extent determine one's actions" (Skinner, 1953, p. 6). It is necessary to understand that this commitment to science set relatively stringent requirements on the pursuit of knowledge within the behavioral school, not the least of which was the need to develop techniques of measurement compatible with the exploration of human behavior.

True to his commitment, Skinner evolved one of the most empirically based theories of human behavior and set the foundation for contemporary behavior therapy. At the heart of this Skinnerian theory was the concept of reinforcement. The operant (or voluntary) behavior of an individual could be increased in frequency if it was positively or negatively reinforced. Alternatively, the frequency of a behavior could be decreased by either administering punishment or withholding reinforcement; this lat-

ter process was referred to as extinction. In other words, the essence of the Skinnerian or operant model of human behavior relied heavily upon an understanding of the environmental (behavioral) events that preceded and/or followed the behavior(s) under scrutiny. This theoretical explanation of human behavior has been refined and elaborated as a result of clinical experience and research. Importantly, however, the interaction between behavior and the events that precede and follow it remains the foundation of most contemporary behavior therapy.

Cognitive behavioral approaches are also regarded as part of the behavioral paradigm and are illustrated by the contributions of Beck (1976), Ellis (1989), and Meichenbaum (1977). Cognitive approaches have developed directly from behavior theory, but because they are considered to contain distinct ideas, they are discussed in a separate chapter in this textbook (see chapter 5).

It was not until the late 1960s, when psychodynamic theories came under attack, that behavioral approaches appeared in social work. Much of the impetus for the development of behavior therapy as applied to social work was provided by the practice and research contributions of Bruce Thyer (1987a, 1988, 1989, 1990, 1991, 1992). Other significant initial contributors were Ray Thomlison (1972, 1981, 1982, 1984a, 1984b), for work on the applications of behavior theory to marital problems and phobic disorders and on its effectiveness for clinical social work practice; Richard Stuart (1971, 1977), for work on the application of behavior theory to delinquency, marital problems, and weight management; Sheldon Rose (1981), for behavior therapy conducted in groups; and Eileen Gambrill (1977, 1983, 1994), for work with clinical problems. Current contributors to the single-system research designs are identified in a bibliography compiled by Thyer and Boynton Thyer (1992).

## BASIC ASSUMPTIONS AND PRINCIPAL CONCEPTS

Several assumptions about behavior underlie behavior therapy. All behavior is assumed to be learned and can be both defined and changed. Problems are formulated as undesirable behavior that can be understood through systematic exploration and modified through specific behavioral techniques. Thus, personal and social problems are translated into behavior that is observable, measurable, and changeable. Change occurs by rearranging "contingencies of reinforcement," that is, by altering what happens before and after the specified behavior. Behaviorists believe that behavioral change is brought about by changing environmental events and reinforcement by significant others in the environment, as well as by the enhanced perception of self that comes from acquiring new behavior. Behavior therapy acknowledges that there are a large number of reinforcing and aversive events that can be operative in any given behavioral exchange. Identifying current and alternative stimuli is essential. By changing the contingencies of reinforcement, the behavior that needs to be changed can be extinguished or other behavior can be conditioned to replace it. The learning and changing of behavior can be understood using social learning theory.



## ELEMENTS OF SOCIAL LEARNING THEORY

Social learning theory comprises three major elements: target behaviors, antecedents, and consequences (Bandura, 1976). First are those behaviors that are the focus of the behavioral analysis. These are often identified during the period of assessment as undesirable, problematic, or a behavior that needs to be changed. When behaviors become the focus for change they are referred to as the "target behaviors." The other elements are those behaviors or environmental events that precede the problematic or target behaviors. These are referred to as "antecedent behaviors" or "events." Events that follow behavior are called "consequences." They are often identified as the controlling or maintaining conditions for the problem behaviors. These behaviors serve as the focus of the behavioral assessment. The interaction of these three elements is described in the ABC behavior therapy paradigm and is represented in Figure 3-1.

It must be noted that this paradigm serves to label one exchange in an ongoing sequence of exchanges between people. In order for the social worker to determine the antecedents and consequences, a decision as to the problem or target behavior must first be made. With this target behavior in mind, the social worker identifies those events or behaviors that precede or follow the target behavior. This identification process is usually done by direct observation by the social worker or by client self-report. This process is known as "behavioral analysis" and is considered essential to effective behavior therapy.

A common parent-child behavioral exchange can serve to illustrate the application of this social learning paradigm to a behavior therapy assessment and change program. Mr. S. complains that his child, Josh, will "never do what he is told." One of the concerns is that Josh will not come to the dinner table when he is called. The presenting situation, as explained by Mr. S., is shown in Table 3-1.

In order to assess the behavior further, it is generally necessary to examine the nature of the consequences that might be provided for Josh. Behavioral consequences differ in terms of quality and purpose. Some are of a positive (pleasing) nature, while others are of a negative (displeasing) variety. The former category is referred to as "positive consequence" and is employed to increase the occurrence of a behavior. The latter category is usually referred to as "punishment" and is frequently observed when a parent attempts to prevent the recurrence of an undesired behavior by spanking the child, that is, by physical punishment. While the use of physical punishment as a consequence is acknowledged as a means of decreasing the frequency of a behavior, it is viewed among behavioral social workers as an unacceptable means of altering behavior. In addition to humanitarian reasons, physical punishment is generally considered unacceptable because in many instances it suppresses a behavior without providing an alternative, more desirable behavior. Behavior therapy requires that any

FIGURE 3-1 THE A-B-C BEHAVIOR THERAPY PARADIGM

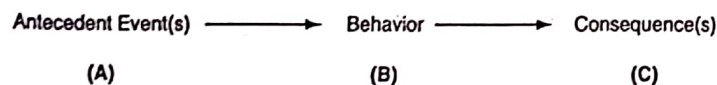


Table 3-1  
Illustration of A-B-C Paradigm

	Antecedents (A)	Behavior (B)	Consequences (C)
Behavioral Analysis of Presenting Situation	Mr. S. calls Josh several times to the table. There is an escalation of threats and yelling when Josh does not immediately respond	Josh ignores his father's first requests but eventually presents himself angrily at the table and begins to eat	Father is silent and appears angry
Behavior Change Contract	Mr. S. makes one verbal request in a pleasant tone for Josh to come to the table	Josh comes to the table when called	When Josh arrives at the table as requested, Mr. S. verbally praises Josh and places a check mark on Josh's tally sheet  If Josh chooses not to respond to his father's request, Mr. S. will begin eating alone, ignoring Josh's absence. Josh will forego the opportunity for his father's praise and tangible, positive acknowledgment for this dinner time

agreed-upon behavioral change must be defined in terms of desired increased frequency by the participants. This requires that all parties to a behavioral change define what behaviors are desired, not simply what is undesired. This is often a difficult requirement, as it is almost always easier to tell someone to stop doing something that is undesirable than to ask them to engage in a desired behavioral alternative. The use of positive consequences to increase desirable behavior is the strength of the social learning approach to behavior therapy. The research in the clinical arena strongly supports the use of positive consequences as a means of facilitating desired behavior. Few would find this an unacceptable research finding and, indeed, might see it as axiomatic. Interestingly, however, it is not always easy to put this principle into practice. For example, Mr. S. may feel that if Josh would do what he was told, then all would be okay, but until Josh changes Mr. S. feels he cannot give Josh any positive messages or praise. Unfortunately, Josh and his father have reached a stalemate such that, even if they agree that change is desirable, it is difficult because they are into a "coercive exchange" (Patterson & Reid, 1970).

Attempting to control another person's behavior by command and threat is fa-



miliar to most of us. In many instances, however, it has the effect demonstrated by Josh and his father. The commands and threats escalate until finally the child complies in order to terminate the threats and/or yelling. By the time the child obeys the parent's command, the parent has become agitated enough to lose any motivation to acknowledge, in positive terms, the child's compliance. This coercive process can be conceptualized using the following Skinnerian notions: a "negative reinforcement process," that is, the termination of a behavior (threats) upon occurrence of the desired behavior (compliance); an "extinction process," that is, the withholding of a positive reinforcer upon the occurrence of the desired behavior (compliance); and a "positive reinforcement process," that is, Mr. S. achieves what he set out to get (compliance).

In other words, when Josh did do as he was asked, for example, sit down at the table, his father chose to ignore his compliant behavior. On the other hand, Mr. S. achieved his objective and to some degree was positively reinforced, except for the feelings of frustration and anger. The difficulty is that one person (Josh) is being negatively reinforced and the other (Mr. S.) is being positively reinforced. This behavioral exchange will therefore be strengthened and can be predicted to increase in frequency unless an alternative exchange can be identified and practiced by both.

In order to help Josh and his father alter their undesirable interaction, the social worker will need to devise a program by which the father can give a clear cue, or instruction, to Josh and positive consequences if Josh complies by arriving at the dinner table at the desired time. Intervention requires that a target behavior for desired change be clearly identified. In this case, such a target might be labelled "Josh coming to the table when called." New antecedents or instructions would be identified, as well as new consequences for this new target behavior. An agreement to change might well be formalized as a contractual statement detailing the new behavioral target, its antecedents, and its consequences (see Table 3-1).

This brief example serves to demonstrate the basic procedures of assessment and intervention in accordance with the A-B-C paradigm. While the overall behavior therapy program would require a more detailed assessment and a more comprehensive intervention strategy, behavior and its controlling antecedents and consequences remain the focus of this approach.

### ELEMENTS OF COGNITIVE THEORY

Returning briefly to the developmental history of behavior therapy, there has always been some question raised, both within and outside the behavioral school, regarding the place of human "internal mental" or cognitive processes. Essentially, there is considerable interest in the role of cognition in shaping behavior. For example, the relatively potent technology of systematic desensitization used in the treatment of anxiety reactions and phobic disorders has always depended heavily on a classical learning theory explanation. However, the actual procedures of desensitization developed by Joseph Wolpe require the anxiety-ridden client to learn a relaxation response that is then called forth in association with mental images of the client's anxiety-provoking situations. Simply speaking, the client is instructed to imagine a hierarchy of in-

creasingly anxiety-provoking scenes while in a state of relaxation. This reliance on visual imagery to facilitate the therapeutic process has lent considerable support to the exploration of the place of cognition in behavioral change. An analysis of the literature since 1979 demonstrates an increasing emphasis on cognitions within the behavioral field (Dobson et al., 1992). For some, this seems to be the next logical phase of development for behavior therapy, while for others it represents a basic violation of the principles underlying empirically based behavior therapy.

The debate regarding the place of cognitions in behavior therapy centers on several assertions by traditional behaviorists. Some theorists, such as Skinner (1988) and Wolpe (1989), argue that behavior therapy has been sidetracked through the inclusion of cognitively based techniques and principles. They propose that a reliance on cognitions in behavior therapy has led to a general abandonment of individualized behavior analysis in favor of treating classes of problems. It has also been stated that the empirical nature of behavior therapy has been eroded through the inclusion of feelings and thoughts that are inaccessible to direct, external observation. Finally, analysis of research data comparing behavior therapy and cognitive and/or cognitive-behavioral therapy outcomes indicate that, in general, outcomes are not improved through the addition of cognitive components to behavior therapy (Sweet & Loizeaux, 1991; Wolpe, 1989). For example, Sweet and Loizeaux (1991) reported that eighty-three percent of the forty clinical outcome studies used in their analysis demonstrated that "no more beneficial outcome was achieved by adding therapy modules that specifically attended to cognitive-semantic variables" (p. 176). However, the efficacy of treatment methods tended to vary according to type of problem. When follow-up versus immediate post-treatment results were considered, cognitive-behavior interventions seemed to offer longer-lasting results.

Whatever the final resolution of this debate, there is no doubt that a cognitively based behavior therapy has developed, one that is quite compatible with social work practice. In its broadest definition, cognition incorporates many of the elements of human thought processes characteristically of concern to social work. These include the processes by which information (input) from the environment is translated, considered, integrated, stored, retrieved, and eventually produced as some form of personal activity (output). Cognitive-behavior practitioners have selected and explored certain cognitive elements in behavior change. In a consideration of cognitive-behavior modification, Robert Schwartz (1982) identified the following elements of cognitive theory used in behavior modification:

1. information processing: the acquisition, storage and utilization of information; encompassing attention, perception, language and memory;
2. beliefs and belief systems: ideas, attitudes and expectations about self, others and experience;
3. self statements: private monologues that influence behavior and feelings; and
4. problem-solving and coping: conceptual and symbolic processes involved in arriving at effective responses to deal with problematic situation (Schwartz, 1982, p. 269).



Cognitive-behavior therapy is the result of a concerted effort to integrate two important theories of human functioning: behavior and cognitive. It should offer a viable alternative to those social workers who have been attracted to the behavioral focus of behavior therapy but have felt that it did not adequately deal with the individual's internal processes.

## BEHAVIORAL SOCIAL WORK PRACTICE

TECHNIQUES

Behavioral approaches to assessment, intervention, implementation, and evaluation share a number of characteristics with the basic social work problem-solving process. The goals of behavioral social work treatment are to increase desirable behaviors and reduce undesirable behaviors in order that the client can improve his or her day-to-day and moment-to-moment functioning. Relationship skills form the foundation of work with clients, just as it does in other areas of social work treatment. The basic behavioral assessment method is used to analyze the client's problem and assist in a plan of change by developing appropriate behavioral change goals. Behavioral interventions have been applied and evaluated with increasing sophistication and success and provide the most effective strategies for dealing with common client problems. The selection of a specific intervention is based on the assessment process, during which presenting problems are translated into observable behaviors. Then, specification of behavior techniques and strategies to be followed are detailed in a treatment contract that addresses the client's problems and circumstances.

Conducting a behavioral assessment requires a focus on the here and now of the problem, as well as on current environmental factors related to the problem behavior. Also, a clear description of the intervention is provided, along with concrete ways to measure progress. Building on client strengths while developing new skills and increasing the knowledge base is another characteristic of behavioral intervention. Generally, the etiology of the behavior is not investigated, nor is the provision of a diagnostic label pursued. Both of these are deemed stigmatizing and uninformative (Gambrell, 1994). Much of the behavioral research literature utilizes diagnostic labels (for example, agoraphobia, attention deficit disorder, post-traumatic stress syndrome) in describing the problem behavior under investigation. This has resulted from the integration of behavior assessment methods with traditional psychiatric diagnostic classifications. This practice has been criticized as promoting a neglect of individual differences (Gambrell, 1994; Wolpe, 1989) and potentially masking outcome differences between types of intervention (Eifert et al., 1990).

The major behavior therapy techniques include: (1) cognitive-behavioral procedures such as cognitive restructuring, self-instructional training, thought stopping, and stress inoculation training; (2) assertiveness training; (3) systematic desensitization and variants of this procedure such as eye-movement desensitization, procedures involving strong anxiety evocation (e.g., flooding and paradoxical intention), and operant-conditioning methods (e.g., extinction and positive or negative reinforcement); and (4) aversion therapy. Each of these approaches deserves a depth of exploration that space does not permit here. However, texts on behavior therapy and

Techniques

1. C.B. Process
2. Assessment
3. Systematic Desensitization
4. Aversion Therapy

practice provide descriptions of the application of these procedures and their effectiveness (Franks et al., 1990; Granvold, 1994; Sundel & Sundel, 1993; Thomlison, 1984b, 1986; Thyer, 1992; Wolpe, 1990). These methods can be applied to practice with individuals, couples, families, groups, and communities. The choice of a specific intervention method should be based on a careful assessment of client needs and the empirically determined effectiveness of specific procedures.

## GENERAL APPROACH TO BEHAVIORAL ASSESSMENT AND INTERVENTION

Behavior therapy provides a planned systematic approach to social work intervention. Indeed, there are specific stages through which all behavior therapy must proceed. While there are a range of activities that are specific to each of the different behavior therapy approaches, there is also a basic set of general procedures that serve as a framework. It is important to remember, however, that this framework is essentially a summary of a behavior therapy approach and is based primarily on the social learning paradigm. The following procedural outline is based on the authors' practice and research with married couples, children, and families. Since much of clinical social work practice is carried out within the context of the family, the outline is presented as an approach to working with the family system.

Beyond the procedural steps identified here, it is important to emphasize that behavioral social workers bring a strong sense of importance to building a positive therapeutic relationship early in the contact with the client system and actively involving the client as much as possible in each step of the assessment and intervention. The importance of this relationship building is not to be underestimated as it establishes trust, rapport, and necessary support to the analysis and management of problem behavior. Once the client system is engaged through the relationship, behavioral procedures can occur. A behavioral assessment to determine the client's problem is the next step.

### ASSESSMENT PROCEDURES

This section outlines ten procedures during a behavioral assessment. The objective is to define as clearly as possible the problems or events for change and the desired outcome.

1. Compilation of the problematic behavior inventory.
  - (a) Begin by asking one member of the family group to identify the perception of the problems that have resulted in the meeting.
  - (b) Clarify these perceived problems by asking for behaviorally specific examples. Most perceived problems can be translated into statements of who does what to whom within what context.
  - (c) As each family member offers his or her perception of the problem, there is a high probability that the ensuing discussion will stimulate disagree-



ments among family members. It is important to observe who disagrees with whom, and over what behavioral statements. Therefore, these interchanges must be allowed to occur; however, they can become counterproductive to the objective of the assessment. When this occurs, the social worker should intervene, requesting the family members to terminate the debate yet acknowledging that differences of opinion are expected. Assure all family members that their perceptions of the problems are important and that each member will have an opportunity to present personal views.

2. Identify priority behavioral problems and their maintaining conditions.
  - (a) Attempt to identify the antecedent events of at least those behaviors that arouse the highest level of intensity of feeling among family members. Antecedent events are those conditions existent immediately prior to the occurrence of the target behavior (e.g., what other members of the family are doing or not doing prior to the occurrence of an undesired behavior).
  - (b) Identify the consequences of those problem behaviors that elicit the more intense family feelings. Identify the consequences of those events that occur after a target behavior (e.g., what other family members do after one of the problem behaviors has occurred).
3. Identify the contingencies existent for the provision of consequences, that is, what rules appear to govern the conditions under which these consequences are provided (e.g., when a child is or is not reprimanded, or when privileges are or are not withdrawn).
4. Identify recurrent behavior patterns in the exchanges among family members. Observe and record behavioral exchanges (e.g., coercive exchanges, shouting, avoidance responses, excessive demands, etc.).
5. Secure a commitment from all members of the family system, ensuring that they wish to work toward change. This commitment should state clearly: (a) that they will work as a unit on these family problems and (b) that they, as individuals, will work toward behavioral change. At this point in the assessment procedure, the social worker should be able to demonstrate to the family the interconnections among their individual behaviors: when one individual behaves, all family members respond in some manner. That is, behaviors do not occur in isolation. For example, when the adolescent repeatedly violates a curfew, the resultant parent-youth conflict affects all members of the family.
6. Begin to identify possible behavior targets for change. The target behaviors should be desirable behaviors and the objective to increase their frequency. This identification is often assisted by asking each family member to answer two questions: How could you behave differently to make this a happier family? How would you like to see others behave to make this a happier family? These questions may be given as homework assignments, with each family member asked to provide as many answers as possible to each question. The social worker should point out that this assignment is a challenge, as it requires the identification of desired behaviors. Individuals are more often accustomed to identifying what behaviors they do not like to see, as opposed to those they prefer.

7. On the basis of the family's homework assignment, discuss possible appropriate behavioral targets for change.
  - (a) Select behaviors that are to be increased in frequency in order to maximize the opportunities for positive consequences.
  - (b) Select behaviors that appear to be most relevant to this family's definition of its own happiness.
  - (c) Select behaviors that are incompatible with undesirable (problematic) behaviors.
  - (d) For each child, select at least one behavior that is "low risk" for change. A "low-risk behavioral target" is one that can be easily attained by the child and that, if performed without positive reinforcement (a violation of the change contract), will not jeopardize the growing trust of the child. An example of a child's low-risk target behavior change might be combing the hair in the morning or cleaning up after dinner each evening.
  - (e) Attempt to select behaviors that are commonly identified by family members (e.g., mealtime behavior, family get-togethers, tidying up cooperatively, playing with all siblings).
  - (f) Remember that a behavior must be observable to all. It is therefore necessary to explicate the indicators of some behaviors in order to minimize debate over whether they have actually occurred. For many parents, the behavior called "cleaning up her room" is a desired behavior change objective. Interestingly, what appears to be a very clear behavior leaves a great deal open to individual interpretation. It is therefore necessary to pinpoint specific behaviors such as picking up clothes, placing them in the appropriate locations, making the bed, placing trash in appropriate containers, etc.
8. Allow time for all family members to present their concerns and their support for the target behaviors. Certain behavior choices will elicit strong feelings from some family members. Negotiation must take place before selected behaviors are settled upon and must always take place within the spirit of the agreement or commitment to change. If one or more family members wishes to reevaluate this commitment in light of the selected targets for change, this request must be honored. Such reevaluation may have to take place within the context of the consequences of no change; that is, all persons have a right not to be required to change. There are, however, certain consequences of not changing. What are they for the individual and the family?
9. When target behaviors have been agreed upon, set the conditions for a baseline measure.
  - (a) Before instructing the family to change, request that the parents monitor the frequency of occurrence of the target behaviors. This will allow for some baseline behavior frequency measures. These measures should be recorded and can be used at a later date to assess ongoing behavioral changes within the family.
  - (b) Appoint the parents monitors of the behavior targets. Give them a tally sheet and instructions to record the frequency of each target behavior.



10. During the assessment phase, the social worker may identify problems with an individual or with the couple that require specific attention. On occasion, the assessment may indicate that the change process should be focused on the couple rather than on the child. Behavioral intervention is compatible with the assessment in progress. With the couple's agreement, the intervention may be temporarily suspended in light of the recognized need to concentrate on the couple's problems.

### IMPLEMENTATION PROCEDURES

The implementation phase of a behavioral therapy program is marked by the identification of new contingencies between identified behaviors and their consequences. To this point the focus has been on the appropriate targeting of behaviors for change. When a program for change is to be implemented, a "contingency contract" might be formulated in order to facilitate a systematic, cooperative effort on the part of the family.

1. Clearly identify the target behaviors that have been agreed upon as the focus for change.
2. Establish new antecedent events for each of these target behaviors.
3. Establish new consequences that are to be provided for each occurrence or nonoccurrence of a targeted behavior.
4. Formulate a written contract specifying the following:
  - (a) The target behaviors for change and their pinpointed elements.
  - (b) New antecedents; if these are to be instructions, specify by whom they are to be given.
  - (c) New positive consequences; these might include check marks and/or tokens provided upon behavioral occurrence, as well as social reinforcers such as affection and praise.
  - (d) Specify what is to happen if there is a violation of the contract; that is, if a behavior does not occur or an undesired behavior occurs, it must be clear what others in the family are to do. For example, if a target behavior focuses on good dinner table behavior and one or more of the children violate this agreement, all family members must be clear about what is to happen.
  - (e) Specify those positive consequences that are to act as bonus reinforcers, particularly when certain behavioral objectives are accomplished. For example, it is often helpful to include special privileges, such as family outings, as bonus reinforcers of a designated behavioral achievement, such as a target behavior that occurs at the desired level for a period of one week or more.
  - (f) Specify those in the family unit who are to be responsible for recording the frequency of behavioral occurrences. This is usually one or both of the parents. These tally records are important in communicating to family members the degree and intensity of change.

- (g) Contracts may be written in a variety of ways, but they must all state who does what to whom under what conditions. Many different examples of contracts may be found in the literature.
5. It is necessary to follow up with a series of telephone calls to ensure that the program has been implemented. In addition, these telephone calls provide the opportunity for members of the family, particularly the parents, to ask any questions that might have arisen as a result of implementing the program for change. These calls need not take long and should be limited to the pragmatics of the program implementation. Any conflict among family members reported at this time should be directed back to the family for resolution. If resolution is not possible, the persons in charge of recording should make note of the nature of the conflict and the context in which it occurs. This will be dealt with at the next meeting with the social worker.
6. Difficulties in implementing the program are inevitable. These problems usually pertain to such things as tally recording, differences in target behavior definition, and lack of "cooperation" on the part of certain family members. In order to deal with these problems, the social worker must remember that the contract is the reference point. Once agreed to, all problems must relate back to the original document. Changes in the contract must be negotiated by all members of the family. Remember that all problems related to implementation of and adherence to a contract for family interactional modification may eventually have to be related back to the original commitment to change agreed to by the family during the assessment period.
7. Each interview with the family after implementation should begin with an examination of the tally recording provided by the family members. Where change is evident in these data, the social worker must provide positive reinforcement by acknowledging the change and the hard work of all family members.
8. Discussion must then shift to problems arising between sessions. These discussions may address more general aspects of the family's functioning, and special techniques such as role playing, modelling, and behavioral rehearsal may be introduced in an effort to assist the family in dealing with these problems.
9. Since much of the family's energy goes into problem-solving and conflict resolution, the social worker must spend time on these areas of family life. One of the advantages of having required the family to negotiate a contingency contract is that they have experienced successful problem solving and negotiation. Examples derived from that process can be utilized in the ongoing problem-solving and conflict resolution training.
10. Where the monitoring of change indicates that little if any change is taking place, it is necessary to examine certain aspects of the program design. Depending on the area in which the program is failing, it will be necessary to consider changes in target behavior, consequences, or violations. It is often necessary to assess whether people are in fact following through on the re-



quirements of the contract. For example, it might be that a parent has agreed to read a bedtime story for successful achievement of a behavioral objective during the day, but fails to deliver.

11. When target behaviors have been achieved at the desired level of frequency, identify new behaviors for change or move toward termination of the behavioral therapy program.

#### TERMINATION PROCEDURES

1. Together with the family system, evaluate progress in relation to the objectives of the contract.
2. If the decision is to terminate, set the conditions for behavioral maintenance.
3. Behavioral maintenance requires the social worker to review with the family the basic learning principles identified during the modification of the target behavior (e.g., positive consequences versus punishment).
4. Instruct the family to continue the tally recording over the next four weeks but without the regularly scheduled appointments.
5. Set up an appointment for four weeks from the last interview for the purposes of termination and follow-up.

#### FOLLOW-UP PROCEDURES

The follow-up interview should assess whether or not the behavioral changes have been maintained. If they have not been maintained at a level consistent with the expectations of the social worker and/or the family, it will be necessary to reinstitute the program structure. If, on the other hand, the social worker and family feel that the behavioral changes have been maintained within desired parameters, termination may take place. Termination, of course, does allow for the family to contact the social worker at any point in the future when they feel the necessity.

From the perspective of clinical evaluation, it is important that the social worker analyze the results of the behavioral change program. Further, it is helpful for the social worker to contact family members at three-month and six-month intervals to ascertain the degree to which the behavioral changes have been maintained.

#### PRINCIPAL APPLICATIONS IN SOCIAL WORK TREATMENT

The diverse applications of behavior theory in social work practice can only be briefly highlighted in this chapter. Given the quantity of behavioral articles in social work journals and textbooks, behavioral social work has been characterized as a "major school of practice" (Thyer, 1991, p. 1). In a survey of clinical social workers, one-third of the practitioners who participated preferred a behavioral approach in their practice (Thyer, 1987a). Social workers have found behavioral interventions most influential when applied to disorders such as anxiety, depression, phobias, ad-

dictions, sexual dysfunction, and relationship distress. A number of misconceptions about behavior therapy continue to persist and may account for why some social workers do not employ behavioral strategies in their practice. A few of the most common myths held by social workers and other professionals about behavior therapy are that it ignores client feelings and is applicable to simple rather than complex problems, and that it overrelies on aversive techniques and is limited to symptom alleviation rather than treatment of root problems (Acierno et al., 1994b; Franks et al., 1990; Thyer, 1991).

Because behavior therapy has been applied to clients who have severely debilitating or difficult-to-treat conditions, ethical considerations play a prominent role in behavior therapy. Many programs have established protective mechanisms, such as treatment review processes, to address the issues of utilizing aversive procedures, determining appropriate individualized assessment and intervention, as well as keeping written records and assessment checklists and questionnaires (Sundel & Sundel, 1993).

During the past two decades, one of the most important areas of behavioral practice to emerge has been that of dealing with parenting, parent training, and child management and skill acquisition. With the help of the basic A-B-C paradigm, many childhood problems have been reconceptualized as behavioral problems resulting from interactional exchanges between children and parents. By systematically altering these exchanges in the context of behavior therapy, it has repeatedly been demonstrated that both parental and child behavior can be altered toward their desired objectives (Dangel et al., 1994; Graziano & Diamant, 1992; Sundel & Sundel, 1993). Typical child problems addressed using behavioral techniques include non-compliance, chore completion, enuresis, eating disorders, interrupting, fire setting, sleep problems and bedtime anxieties, and hyperactivity (Butterfield & Cobb, 1994). Conduct disorders or antisocial behaviors in children have received considerable clinical and research attention in the past decade. Behavioral techniques have been demonstrated as effective in changing these behaviors (Christophersen & Finhey, 1993; Doren, 1993; Jensen & Howard, 1990; Kazdin, 1990). It has been estimated that three to five percent of school-age children have attention deficit-hyperactivity disorder (ADHD), which has been identified as a risk factor in conduct disturbance and antisocial behavior (DuPaul et al., 1991). Social workers encounter these children and adolescents within the program contexts of child welfare, foster care, incarceration, therapeutic day programs, and residential and school-based programs (Meadowcroft et al., 1994).

Home-based interventions with families and children have developed as the preferred treatment setting for many multifactor child and parent-related problems. The focus is on family interaction supported by the social learning model. Maltreatment or risk of maltreatment of children by primary caretakers has become a focus of in-home intervention. Problem-solving and skills training for parents usually include child management skills, anger management, and parent issues involving substance abuse, communication difficulties, and social isolation (Gambrill, 1994; Hodges, 1994).



Since the late 1950s, the treatment of choice for many professionals working with anxiety- and phobic-disordered clients has been Joseph Wolpe's systematic desensitization (1990). Clients suffering the inhibitory effects of phobic disorders have been the subjects of a great deal of effective intervention by behavior social workers. Combined with the basic systematic desensitization, new cognitive-behavioral approaches are promising even more effective outcomes. In fact, it is now to the point where a social worker would be hard-pressed to make an argument for an alternate treatment method for any of the phobic disorders.

Couple counselling is another area where social workers frequently utilize a behavioral approach. Jacobson (1992) asserts that behavioral interventions are the most widely investigated treatment for couple problems. Communication, conflict management, and problem-solving skills building are the most common behavioral interventions used. Behavioral procedures have been demonstrated to be effective with a multitude of problems, circumstances, and populations in diverse settings. Indeed, behavioral social work treatments have been found to be superior to other treatment approaches to social skills training, phobias, hyperactivity and, developmental problems of children and adults.

### EDUCATION AND TRAINING FACTORS

Training for behavior therapy occurs in a variety of educational contexts. The content, format, and objectives of behavior training vary widely (Alberts & Edelstein, 1990). Social work curricula generally provide an overview of behavioral change principles and techniques but not detailed training (Thyer & Maddox, 1988). There are some social work educational programs that offer electives in behavioral social work practice. Thyer (1991) reports there over sixty published textbooks on behavioral social work and most social work textbooks present practice information on behavioral social work treatment. Many organizations, treatment settings, and programs offer behavioral training to social workers, foster parents, and in-home family support workers. Given the efficacy of behavioral methods and their extensive application to social work practice, an argument can be made for the inclusion of behavioral social work practice in the core curriculum in social work education.

### CULTURALLY COMPETENT BEHAVIORAL PRACTICE

It is only relatively recently that concern for the needs of culturally different groups has received attention among behavior therapists. Behavior theory, like many contemporary practice theories, draws on Western cultural values, assumptions, and philosophy. In reality, both clients and behavioral social workers are racially diverse. Efforts to offer culturally competent therapy are very much affected by the political, social, and economic power and status of each group. Additionally, barriers exist in terms of access to and participation in therapy for different racial and ethnic groups. Barriers include philosophical and value differences, language, as well as individual

and organizational structures associated with Western helping systems (Corcoran & Vandiver, 1996).

Working with culturally different individuals involves recognizing diversity in the perspectives and behavior of individuals. Different cultural groups develop their own patterns of coping strategies. Many of the techniques used by Western trained behavioral social workers may employ strategies that conflict with the values, beliefs, and family traditions of a particular cultural group. For example, the understanding of time is critical to the concept of shaping, reinforcement schedules, and extinction. This concept may be understood differently by those who view time in other ways. As well, what constitutes problematic behavior, help-seeking behavior, and inappropriate behavior is interwoven with the Western perspective on the person and what behaviors, thoughts, and feelings make up the person. Many behavioral social workers argue, however, that the principles underlying behavior cross the boundaries of culture. The main concern is whether the assumptions underlying the principles of learning are universally accepted. This needs further exploration. For example, the definition of a positive reinforcer, as an event that increases behavior frequency, does not appear to be culturally determined, but a specific positive reinforcer, such as TV watching, may work in one culture but not in another.

It is therefore very important for behavioral social workers at the beginning of assessment to understand how family and the individuals who constitute family are defined in a given culture, and to recognize that individuals make different choices based on the culture. If social workers mislabel behavioral interactions, their interventions can compound rather than resolve parenting dilemmas or other problematic behaviors. Therefore, interventions should be carefully sculpted to the client's cultural orientation and preferences. It requires modification of existing interventions and understandings of behavior, so that they are grounded in local understandings (Landrine & Klonoff, 1995).

Many social workers are beginning to ask what the cultural determinants and parameters of behavior therapy are. It is suggested that organizations in culturally specific and diverse communities should ensure that the social work staff be diverse and have a high level of self-awareness and openness. The ability to do a cultural self-assessment is also essential. Behavioral social workers must keep in mind that individuals develop problem-solving styles that fit their culture and values, and therefore solutions must fit the cultural attributes of culturally different populations. Most of the existing knowledge about diversity has not been developed by behavior therapists. Therefore, the creation of multicultural interventions is only beginning. In summary, research on the relationship between cultural competencies, behavior theory, and outcomes is largely absent or inappropriate for culturally specific situations.

### SELECTED CONCERNS IN BEHAVIORAL PRACTICE

The social work literature once reflected numerous concerns about the use of behavior therapy in social work practices. Many of these earlier concerns appear to have



abated. For illustrative purposes, the following concerns reflect the current practice literature.

1. For those who want "insight" or a "talking" psychotherapy, this approach is not appropriate. It is action oriented and leans heavily on an educative focus for client change.
2. The focus is on behavior/cognitive change and generally requires a structured approach to change by both client and therapist. Some social workers feel this is inappropriate or restrictive.
3. Some nonprofessionals and professionals misunderstand or misrepresent the approach, seeing it as very simple and as a quick fix for complex problems. The usual sources of such misunderstanding are inappropriately designed child management programs that rely on aversive methods of "punishment" for undesired behavior, often coupled with the unsystematic use of "rewards" for compliant behavior. Such interventions are devoid of the elements of behavior analysis and the systematic use of behavioral techniques essential for successful behavioral change.
4. The behavior therapies are often thought to be derived from a homogeneous theory, when in fact they are made up of numerous theories of behavior with an array of optional intervention strategies and techniques. Many social workers fail to understand that differential approaches are often available for specific problems identified through the process of behavioral assessment. Such matching of technique to problem is criticized by some therapists as contrived and as treating the symptom rather than the cause. Differential applications relate to the problem and are guided by the behavioral analysis of the conditions under which the problem behavior occurs.
5. Some behavioral techniques appear on the surface to be insensitive to the client. For example, the use of imagery and/or confrontation with fear-producing events is viewed as causing undue anxiety and discomfort to the client.

### EMPIRICAL BASE

In general, the effectiveness of the various strategies is increasingly a concern for social work practitioners. Much of the literature supporting the relative success of various therapies depends on anecdotal material from the case reports of social workers. Many of these accounts are unidimensional and relatively few are based on empirical findings that use before and after measures and that establish clear relationships between the therapeutic intervention and client change.

In contrast, behavior therapies have a built-in opportunity for data collection by both social workers and clients. Behavioral procedures involve the systematic application of specific techniques intended to facilitate observable behavior change. Measurement of change is therefore an integral part of behavior therapy. This emphasis on problem assessment and concrete indicators of progress has led to the extensive

development and use of standardized measures. One example of a widely utilized behavioral measure is the Achenbach Child Behavior Checklist (Achenbach, 1991). The empirical literature reports extensive research data demonstrating the effectiveness of behavioral approaches to many client problems. Indeed, behavior therapy has championed the use of single-system research design (Gambrill, 1994; Hersen, 1990; Thyer & Boynton Thyer, 1992), as well as studies in group outcome research (Barrios, 1990; Kazdin, 1989).

Many behavioral treatments have progressed to the advanced stage where they can be implemented on a prescriptive basis with children and adults. This is a highly desirable opportunity for improving social work clinical practice. Prescriptive interventions are standardized treatments that have been empirically validated for use with precisely defined populations and problems under clearly defined conditions. This maturity and richness in the empirical literature is the result of decades of clinical application of behavioral interventions and rigorous research in such areas as anxiety disorders, phobic disorders, and marital problems. The development of behavioral interventions for other problematic behaviors is still in its infancy and as yet has not developed strong empirical validation. It should be noted that for some problems, behavior therapy is routinely and effectively used in conjunction with pharmacotherapy (e.g., some depressions, attention deficit-hyperactivity disorder, obsessive-compulsive disorder). The *Handbook of Behavior Therapy with Children and Adults* (Ammerman & Hersen, 1993) includes pharmacological approaches commonly combined with behavioral approaches. Table 3-2 provides a selective sampling of research studies and literature reviews that appraise the effectiveness of behavior therapy in producing individual change for a wide range of problems.

Behavior approaches to group work have a recognized place in social work primarily due to the excellent ongoing work of Rose (1981). Gambrill (1983), Tolman and Molidor (1994), and others. (Gambrill, 1983) have used the behavioral approach successfully with a variety of groups including adults and children (Gamble et al., 1989; Tallant et al., 1989; Thyer, 1987b; Van Der Ploeg-Stapert & Van Der Ploeg, 1986). Group work often focuses on teaching assertive behaviors and other interpersonal skills. It has been utilized extensively in the treatment of depression, eating disorders, parent and child skills training, and addictions. Tolman and Molidor (1994) reviewed group work within social work practice throughout the 1980s. They note that 69 percent of the articles reviewed had a cognitive-behavioral orientation. Child social skills training and other behavior problems of children and adolescents were the most frequently targeted fields of social work practice research utilizing behavioral group work (Jenson & Howard, 1990; Zimpfer, 1992).

Finally, applications of behavior therapy principles to community practice have been somewhat more limited but have not been ignored. Importantly, however, there are numerous examples of community projects based on behavioral principles reported in the literature (Mattaini, 1993; O'Donnell & Tharpe, 1990; Rothman & Thyer, 1984). The behavioral interventions employed are the same as those utilized for individual change (for example, modelling, feedback, contingency management).



Table 3-2  
Selective Summary of Behavior Therapy Effectiveness

Problem Area	Effectiveness Research*
Addictions	Aciermo, Donohue, & Kogan, 1994; Goldapple & Montgomery, 1993; Hall, Hall, & Ginsberg, 1990; Lipsey & Wilson, 1993; Peyrot, Yen, & Baldassano, 1994; Polansky & Horan, 1993; Sobell, Sobell, & Nirenberg, 1988
Anxiety disorders	Aciermo, Hersen, & Van Hasselt, 1993; Beck & Zebb, 1994; Emmelkamp & Gerlisma, 1994; Lipsey & Wilson, 1993; Rachmann, 1993; Van Oppen, De Haan, Van Balkom, Spinhoven, Hoogdin, & Van Dyck, 1995
Autism	Celiberti & Harris, 1993; Ducharme, Lucas, & Pontes, 1994; McEachin, Smith, & Lovaas, 1993; Scheibman, Koegel, Charlop, & Egel, 1990
Child maltreatment	Gambrill 1983; Finkelhor & Berliner, 1995; Gaudin, 1993; Meadowcroft, Thomlison, & Chamberlain, 1994; Wekerle & Wolfe, 1993; Wolfe, 1990; Wolfe & Wekerle, 1993
Conduct disorders	Bramlett, Wodarski, & Thyer, 1991; Christophersen & Finney, 1993; Dumas, 1989; Kazdin, 1990; Lochman & Lenhart, 1993; Maag & Kotlash, 1994; Magen & Rose, 1994; Raines & Foy, 1994
Couple problems	Granvold, 1994; Epstein, Baucom & Rankin, 1993; Halford, Sanders, & Behrens, 1994; Hahlweg & Markman, 1988; Lipsey & Wilson, 1993; Montag & Wilson, 1992; O'Farrell, 1994; Thomlison, 1984a
Depression	Beach, Whisman, & O'Leary, 1994; Frame & Cooper, 1993; Hoberman & Clarke, 1993; Norman & Lowry, 1995; Rohde, Lewinsohn, & Seeley, 1994
Developmental disabilities	Feldman, 1994; Hile & Derochers, 1993; Kirkham, 1993; Nixon & Singer, 1993; Thomlison, 1981; Underwood & Thyer, 1990
Eating disorders	Gamer & Rosen, 1990; Isreal, 1990; Kennedy, Katz, Neitzert, Ralevski, & Mendlowitz, 1995; Lipsey & Wilson, 1993; Morin, Winter, Besalel, & Azrin, 1987; Saunders & Saunders, 1993; Smith, Marcus, & Eldridge, 1994; Wilson, 1994
Family violence	Edleson & Syers, 1990; 1991; Faulkner, Stollenberg, Cogen, Nolder, & Shooter, 1992; Peled & Edleson, 1992; Tolman & Bennett, 1990
Gerontology	Fisher & Carstensen, 1990; Hersen & Van Hasselt, 1992; Nicholson & Blanchard, 1993; Widner & Zeichner, 1993
Juvenile delinquency	Bank, Marlowe, Reid, Patterson, & Weinrott, 1991; Hagan & King, 1992; Hawkins, Jensen, Catalano, & Wells, 1991; Lipsey & Wilson, 1993; Meadowcroft, Thomlison, & Chamberlain, 1994; Zimpfer, 1992
Pain management	Biederman & Schefft, 1994; Gamsa, 1994; Holroyd & Penzien, 1994; Lipsey & Wilson, 1993; Subramanian, 1991; 1994
Phobic disorders	Donohue, Van Hasselt, & Hersen, 1994; King, 1993; Mersch, 1995; Newman, Hofman, Traber, Roth, & Taylor, 1994; Turner, Beidel, & Cooley-Quille, 1995
Post-traumatic stress	Caddell & Drabman, 1993; Corrigan, 1991; Foy, Resnick, & Lipovosky, 1993; Richards, Lovell & Marks, 1994; Saigh, 1992
Psychosis	Liberman, Kopelowicz, & Young, 1994; Lipsey & Wilson, 1993; Morrison & Sayers, 1993; Scotti, McMorro, & Trawitzki, 1993; Tarrier, Beckett, Harwood, Baker, Yusupoff, & Ugarteburu, 1993
Sexual deviance	Camp & Thyer, 1993; Hanson, Steffy, & Gauthier, 1993; Marshall, Jones, Ward, Johnston, & Barbaree, 1991; Kaplan, Morales, & Becker, 1993; Marques, Day, Nelson, & West, 1994
Sleep disturbances	Lichstein & Riedel, 1994; Minde, Popiel, Leos, & Falkner, 1993
Stress management	Dubbert, 1995; Lipsey & Wilson, 1993

\*When possible, review articles and research directly applicable to social work practice were selected.

Some of the problem areas addressed in behavioral community practice have been increasing the level and quality of community participation and decreasing undesirable community practices (Mattaini, 1993).

Overall, and relative to other approaches, behavior therapy has an attractive record of success with a wide variety of human problems. However, several gaps in knowledge and research of behavior therapy are noted in the literature. These gaps include maintaining and generalizing behavioral changes and determining which behavioral approaches work most effectively with which kind of problem in what context. Maintenance refers to the durability of the behavioral change over time; generalization refers to behavioral change in contexts different from the one in which the intervention took place. Strategies to enhance both maintenance and generalization need to become part of any behavioral change program and to be validated through empirical research (Gambrill, 1994; Kendall, 1989; Whisman, 1990). Critical variables that predict which clients will benefit from which intervention procedures can be identified not only by looking at those clients for whom a specific behavioral procedure is effective but also by considering those clients who fail to improve from the treatment (Goldfried & Castonguay, 1993; Steketee & Chambless, 1992). The quality of prediction will improve if a number of common methodological problems are addressed.

## PROSPECTUS

Behavior therapy, as it has been presented here, comprises a variety of distinctly different approaches to facilitating behavioral and, in some cases, cognitive changes. It has been developed from a strong commitment to planned and systematic assessment, a distinct strength over other therapeutic models of change. Intervention strategies evolve from the prescriptive approach to assessment within a context of empirical inquiry, primarily utilizing nominal and ratio level of measurement to establish frequency and duration of problems. Its impact on social work practice continues to be felt both directly in clinical practice and indirectly in practice areas such as task-centered approaches, as well as single-system designs in research. Behavior therapy has been demonstrated to be effective in most areas of social work practice. For some large and complex problems such as those of crack addicts and autistic children, the theory is considered underdeveloped (Jordan & Franklin, 1995, p. 21). However, for the majority of problems encountered by social workers, empirical support for behavior therapy as an effective therapeutic intervention is well established and most argue behavior theory is the most advisable therapeutic option. There is little doubt that its place within social work practice has been assured. It is our sincere hope that social workers will understand the contribution behavior theory will make to quality assurance in social work practice.



## APPENDIX

## BASIC ASSUMPTIONS AND PRINCIPLES

Contingencies of reinforcement	Reinforcing and aversive stimuli
Target behaviors	Antecedent behaviors
Consequences	Behavioral analysis
Coercive exchange	Negative reinforcement process
Positive reinforcement process	Extinction process
A-B-C paradigm	Information processing
Beliefs and belief systems	Self statements
Problem solving and coping	

## BEHAVIORAL ASSESSMENT AND INTERVENTIONS

Behavior inventory	Behavioral exchanges
Contingencies	Low-risk behavioral target
Homework assignments	Negotiation
Observable	Baseline measure
Commitment to change	Tokens
Contingency contract	Bonus reinforcers
Social reinforcers	Tally records
Recording	Modelling
Role playing	Problem-solving activity
Behavioral rehearsal	Monitoring of change
Conflict resolution	Behavioral maintenance clinical evaluation
Evaluate progress	
Maintaining conditions	

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