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## ABSTRACT

The instructor's manual is designed for inservice training on using cognitive behavior modification with mainstreamed emotionally disturbed adolescents. The theoretical rationale and general principles are discussed, and activities to help the instructor explain the tenets are described. The importance of recordkeeping is emphasized. The second section applies a cognitive behavioral approach to disturbed adolescents in a public school setting. A self monitoring system is explained, as are procedures to teach alternative ways of behavior. A case study in which the principles were used with an aggressive 13 year old concludes the manual. (CL)

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MANCHESTER COMMUNITY COLLEGE INSERVICE TRAINING PROJECT

Year III 1980-1981

PROJECT: LEAST RESTRICTIVE ENVIRONMENT  
MCC INSERVICE TRAINING PROJECT FOR REGULAR CLASSROOM TEACHERS

A COGNITIVE-BEHAVIORAL APPROACH FOR DEALING WITH EMOTIONALLY  
DISTURBED ADOLESCENTS IN A PUBLIC SCHOOL SETTING

INSTRUCTOR'S MANUAL

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## OVERVIEW

This workshop will present a behavioral management strategy for use with secondary level students who exhibit non-compliant behaviors in the classroom. The workshop is comprised of three parts. In the first part the theoretical rationale and general principles underlying the use of behavioral management strategies at the secondary level will be presented. The second part of the workshop examines specific application of the principles to the classroom setting. The workshop series concludes with the presentation of an actual case studying utilizing a time-out or social isolation procedure with a highly disruptive middle school student.

## OBJECTIVES

Workshop participants will:

1. Understand the principles of learning underlying behavior;
2. Be able to apply these principles to manage various kinds of unacceptable or inappropriate classroom behaviors;
3. Become knowledgeable of the cognitive factors associated with behavior change;
4. Be able to describe the psychosocial characteristics of adolescents concerning their decision making styles, problem solving approaches, values orientation, and perception and misperception of situations according to their expectations about interactions with peers, adults, and authority figures;
5. Be able to chart behaviors according to a baseline-verbal focusing-behavioral intervention data-based model;
6. Understand their role in guiding and direction the flow of student interactions and behaviors in the classroom; and
7. Be able to identify patterns of school behavior which are unacceptable and to develop and implement appropriate behavioral interventions based on an understanding of the cognitive and behavioral factors influencing these behaviors.

## PRETEST-POSTTEST

## A COGNITIVE BEHAVIORAL APPROACH

1. Voluntary behaviors of a person are known as (a) classical (b) respondent (c) primary (d) operant behavior.
2. The best way to begin any behavior management program is to (a) collect baseline data (b) reinforce acceptable behavior (c) set-up a ratio or interval schedule (d) contact the student's parents.
3. In dealing with the Emotionally Disturbed student in the classroom, the primary issue seems to be one of (a) the self-concept (b) social insecurity (c) power (d) a & b (e) a&c (f) a,b&c.
4. In a cognitive approach the emphasis is on (a) accurate perception of reality (b) decision making (c) social insight (d) a&b (e) a&c (f) a,b&c.
5. An essential part of any treatment program is: (a) feedback (b) the student's perceptions (c) teacher support (d) administrative support.
6. The effectiveness of a treatment can be assessed by its (a) situational specificity (b) applicability (c) generalizability (d) utility in getting the student to comply with teacher requests.
7. Shaping involves (a) task analyzing (b) reinforcing (c) extinguishing (d) a&b (e) d&c (f) a,b&c the denied target behavior
8. Behavioral change depends on the (a) degree of parent involvement (b) student's desire to change (c) teacher's creativity (d) availability of programmatic options within the school.
9. At eight years of age a child's self-concept is strongly affected by (a) the peer group (b) the extended family (c) teachers (d) a&b (e) d&c (f) b&c.
10. Seeking out experiences with others which confirm one's perceptions of the self is referred to as (a) selective perception (b) social anticipation (c) discrimination (d) attribution.

PRETEST-POSTTEST ANSWER KEY.

1. d
2. a
3. c
4. d
5. a
6. c
7. d
8. b
9. c
10. a

## PART I

### GENERAL PRINCIPLES OF LEARNING INFLUENCING HUMAN BEHAVIOR

Behavior modification is based on learning theory derived from the works of Ivan Pavlov and B. F. Skinner. Through careful observation and control of the factors within the environment these men were able to discover specific relationships between the behaviors exhibited by living organisms and the presence or absence of certain variables within the environment. Skinner was responsible for defining two categories of behavior: operant behavior and respondent behavior.

#### Respondent Behaviors

Respondent behaviors are those which are mainly reflexive. As such, respondent behaviors occur as a response to a stimulus. This response is not within the control of the organism. Some examples of respondent behaviors include the patellar reflex or knee jerk, the startle reflex where a person will jump upon hearing a sudden loud noise, or closing one's eye when a puff of air is blown into the eye. The classic example of respondent behavior is the series of experiments involving dogs conducted by Pavlov where the presentation of food powder was paired with the ringing of a bell. Eventually, the sound of the bell was sufficient to produce the salivation response originally only induced by the food powder. It was not necessary to show the dog the food powder. This process is referred to as classical conditioning.

#### INSTRUCTOR ACTIVITIES

1. Present a schematic diagram outlining the sequence involved in the Pavlovian classical conditioning experiment. Any introductory text in Psychology will be helpful in clarifying the steps in this experiment.

2. Using participants from the workshop demonstrate how reflexive behaviors are not under the direct or easy control of the person using one of the examples presented.
3. Emphasize that reflexive behaviors are not that part of behavior which behavior modification addresses.

### Operant Behaviors

The second category of behavior defined by Skinner was operant behaviors. Operant behavior is voluntary behavior exhibited by the organism in response to the environment. The environment also influences which kinds of operant behaviors will be emitted by the organism. Some common examples of operant behaviors in the classroom include verbally or physically abusive behavior toward teacher and classmates, or leaving the classroom without the teacher's permission. These behaviors often occur without any readily observable stimulus and are said to be emitted.

Operant behavior is controlled by the consequences which immediately follow it. Since you cannot change behavior which has already occurred, behavior modification techniques are oriented toward reducing or minimizing the future probability of a given behavior occurring. By changing the consequences associated with an operant behavior, its future occurrence can probably be controlled and reduced.

### Factors Influencing the Occurrence of Operant Behaviors

**Reinforcement:** A reinforcer is any event that increases the occurrence of the behavior that it follows. The way to determine if an event or consequence is reinforcing is to observe and analyze its effects on the behavior it follows.

### INSTRUCTOR ACTIVITIES

1. Demonstrate ways to observe and analyze the effects of consequences on behavior. Allow participants to practice these skills among themselves using both tangible (food, verbal comments) and intangible

(non-verbal cues) reinforcers.

2. Stress how the same consequence may be reinforcing for one person but not for another, noting the highly individual nature of reinforcement.
3. Discuss various situations within school which are aimed at eliminating unacceptable behaviors, but which in fact, really reinforce their occurrence. Some common examples include out-of-school suspensions, teacher attention for deviant behavior in class, or possibly even placement of a disruptive adolescent male in the LD resource room with a young female teacher for lack of academic achievement. Discuss alternative ways to deal with each of these situations.
4. Present group activities varying the time interval between the desired behavior and the presentation of the reinforcer. Focus group discussion on the necessity for the reinforcer involving one group member performing several tasks while being reinforced for the first behavior only is a good way to emphasize temporal contiguity between reinforcer and desired behavior.
5. Encourage discussion of specific problems or examples from the group.

**Extinction:** Extinction is the process of removing reinforcement until behavior returns to its original levels of frequency..

**Primary Reinforcers:** Consequences related to certain biological needs which do not depend on previous conditioning for their reinforcing potency.

Examples include giving water to a thirsty student or food to a hungry student.



**Secondary Reinforcers:** Consequences which through conditioning have a acquired reinforcing potency. Examples include praise, attention, or recognition.

#### INSTRUCTOR ACTIVITIES

1. Discuss various reinforcers available to teachers at the secondary levels and the advantages/disadvantages of each. Examine both positive and negative kinds of reinforcement.
2. Encourage group members to share the kinds of reinforcers they use during teaching/behavior management and their effectiveness in evoking desired behaviors from the students.
3. Have the group generate a list of primary and secondary reinforcers available within the school setting specifically appropriate for adolescents. How can these each be used to elicit acceptable behavior in school?
4. Discuss the relevance of satiation in using reinforcement.

Reinforcement can be given in one of two basic ways. Both ways result in an increase in the probability of occurrence for the behavior they follow. The two ways are:

Positive reinforcement, where a desired or positive thing or event is given to a student contingent upon showing a desired behavior. Positive reinforcement has several advantages. The person or situation associated with that reinforcer tends to become a secondary reinforcer. The parent or teacher administering the positive reinforcement usually is seen positively by the student and becomes more effective as a reinforcing agent. Examples of positive reinforcement include teacher verbal praise for hard work by students, or a student earning additional classroom privileges for assuming extra homework assignments.

Negative reinforcement, where something which is seen as negative by the student is taken away, contingent upon demonstration of a desirable behavior. This method of reinforcement tends to encourage students to avoid or escape from the situation rather than be placed in it and then exhibit the desired behavior. Often, the person giving the negative reinforcement and the situation are perceived by the student as punishing and negative. It is important to realize, however, that negative reinforcement includes a teacher yelling at the class until it becomes quiet.

#### INSTRUCTOR ACTIVITIES

1. With volunteers from the workshop audience demonstrate the use of each kind of reinforcement. A good example for negative reinforcement is to have one of the volunteers work alone copying "I will not talk without permission" 100 times while the others are on a group break. Encourage the volunteers to share his/her feelings and perceptions after about 10 minutes of the activity. Compare and contrast with another who has been given positive reinforcement during the same period of time.
2. Encourage discussion from the group of actual daily classroom situations where negative reinforcement is used intentionally or accidentally by teacher and administrator.

#### Shaping

In general, most students do not fully exhibit the desired behaviors sought by teachers, particularly at the secondary level. A student's behavior must gradually be directed toward the desired target behavior. This is referred to as shaping. Without being aware that shaping must occur and that it is a fairly lengthy process, the teacher using a behavioral intervention can become quickly frustrated when the desired behaviors in the student do not occur immediately or even within a week or two. Shaping the

desired behavior is task-analyzed into its component parts. There are four steps involved in shaping student behaviors. These are:

1. Clearly define the behavior which the teacher would like the student to exhibit.
2. Measure how frequently that desired behavior is now being shown by the student. This is referred to as collecting baseline data.
3. Break the target behavior down into a series of sub-behaviors which when put in the appropriate sequence will lead to the target behavior.
4. Reinforce the student each time one of these sub-behaviors is exhibited until the target behavior is achieved. The teacher may have to actually explain and demonstrate to the student what the sequence of these behaviors is and how to exhibit them to achieve the desired goal.

#### INSTRUCTOR ACTIVITIES

1. Using an example such as walking out of class without the teacher's permission, have the group analyze the behavior and develop an intervention based on shaping procedures.
2. Encourage a group member to share a real-life example to use as a problem-solving activity with the rest of the group.

#### Schedules of Reinforcement

Behavior can be reinforced using a variety of kinds (positive, negative) and types of reinforcers (primary, secondary). There are at least two other variables that the teacher should be aware of in using a reinforcement program. Those variables are the temporal schedule for reinforcement and the categories of reinforcement.

##### Temporal Schedules of Reinforcement

Reinforcement can be administered on either a continuous basis or on an intermittent basis. When working with a new behavior which the teacher

wants to strengthen and maintain, it is best to use a continuous schedule where every desired target behavior is reinforced. Each time the student exhibits the desired behavior, she/he is reinforced. This is the fastest way to establish a new behavior and most effective to use with a shaping procedure.

Once a desired behavior has been established and maintained, an intermittent schedule is more appropriate. Now, the student receives reinforcement for the desired behavior only when it is exhibited every so many times (for example, every tenth time) rather than every time it is exhibited. An intermittent reinforcement schedule is more resistant to extinction than a continuous schedule. In addition, the desired behavior will continue for a longer time in an intermittent schedule than in a continuous schedule.

#### INSTRUCTOR ACTIVITIES

1. Emphasize the different advantages of intermittent and continuous reinforcement schedules and when it is more appropriate to use one or the other.
2. Examine some specific classroom situations or cases with adolescents where continuous or intermittent reinforcement could be applied.

Demonstrate to the group how to use each along with the rationale for selecting one over the other.

#### Categories of Reinforcement

Categories of reinforcement refer to the manner in which one selects the frequency of the reinforcement schedule. The two basic categories of reinforcement are interval schedules and ratio schedules.

In a ratio schedule reinforcement is given dependent upon the number of responses emitted by the student. The ratio schedule can be either fixed, where every Nth response is reinforced or variable, where the reinforce-

ment comes on the 1st, 3rd, 5th, and 7th desired target behaviors. A specific sequence of reinforcement would be repeated over and over again.

Interval schedules involve the passage of time between responses. Again, the fixed-variable distinction is used to describe whether the time interval for reinforcement is the same (fixed) among reinforcements or variable.

In general, it is important to remember these points about reinforcement:

- a. Continuous reinforcement should be used when new behaviors are being learned;
- b. Intermittent reinforcement is the more effective and efficient way to maintain behaviors once they are learned;
- c. Extinction occurs more rapidly after continuous reinforcement than after intermittent reinforcement.

#### A DATA-BASED APPROACH TO BEHAVIOR MANAGEMENT

One of the most important issues in any behavior management program is the recording of data about the success or effectiveness of the behavioral intervention. In attempting to modify student behaviors, the teacher must obtain a record of the frequency of occurrence of the behaviors in which she/he is interested in eliminating or reducing. This record about the frequency of occurrence is called the baseline. Baseline data provides the teacher with a variety of information. First, it gives some specific information about how often a particular behavior is occurring. It is possible that a student will behave in a certain manner, and seems to exhibit this behavior more frequently than it actually occurs. The real issue may not be the frequency as much as it is the way in which the behavior affects you as the teacher. A second reason for obtaining baseline data is to provide a starting point upon which to measure the impact of the treatment program on altering unacceptable behaviors. In working with adolescents, a decrease of

even one in the frequency of occurrence of an undesirable behavior may represent success, although you do not feel that the treatment program had any impact at all. Finally, baseline data observations may also provide you with some helpful information about your styles of interaction (or of others) with the student whom you wish to manage more effectively.

Although there are a variety of ways in which to collect baseline data, the most simple and direct way seems to be most appropriate way for the classroom teacher. First, the teacher must identify a behavior which is unacceptable and which can be clearly observed by others. Next, the teacher should set up a chart or sheet similar to the one on the following page listing the targeted behaviors and their frequency of occurrence according to the time of the day. In this manner, the teacher may be able to detect specific daily patterns to the behaviors, or isolate specific situational variables (such as the student not liking a particular teacher, therefore consistently cutting that class), which may be related to the undesirable behaviors. It is not essential to use this type of chart, but it is practical because it provides a quick and detailed summary of how the student behaved on any given day during an entire week.

The baseline data should be collected over at least a five day time period, and preferably a ten day period, if possible. The ten day period will provide a wider sampling of behavior across a greater number of interactions. In this manner, if there is any pattern or precipitating event to the unacceptable behavior, it is more likely to be detected. In a departmentalized school each teacher involved with the student may just record data for the given period of instruction. At the end of each day, or three-day period, the data could be given to a counselor who serves as case coordinator in compiling baseline information and in monitoring the treatment program.

Once the baseline data is collected the second phase is to develop and implement a particular reinforcement program. Data collection continues on a

7  
daily basis to examine the degree of success of the program.

### INSTRUCTOR ACTIVITIES

1. Using an actual case study, show the group how to develop and use a baseline charting system and how to interpret the data.
2. Demonstrate some simple ways to record data without significantly interfering with teaching. Some common ones include transferring pennies or poker chips from one pocket to another and making a period mark on lecture notes or an index card carried in the pocket or clipboard to record frequency of behaviors. Encourage the group to test other "easy" ways to record behavior without interrupting teaching duties.
3. Discuss the advantages and limitations of collecting baseline data. It is essential that teachers see this as a meaningful and useful educational activity rather than an added burden.

### RATIONALE UNDERLYING BEHAVIORAL INTERVENTIONS

The approach and principles presented in the preceding section are based on several rather simple and direct assumptions. First, all behavior is learned. Whether behavior is acceptable or atypical it was originally learned and used by the student within a setting where it was reinforced. Many times students have developed maladaptive or deviant behaviors because they are the most effective in gaining recognition and approval from others.

There is a variety of research showing that people learn how to evaluate themselves depending on how others react to them. Often, others react to a person according to the kinds of behaviors that person exhibits. Developmentally, three groups of people are most important in shaping a person's self-concept and, of course, how a person behaves. These groups are:



- (1) parents; (2) teachers; (3) peers.

### PARENTS

The first act of persons with whom the newborn interacts is the parents. The parents' reactions to crying form the pattern for the quality and kind of later behavioral interactions. Parents who consistently respond to the infant's crying with shouts and threats are teaching the child that behavior is controlled through intimidation and physical coercion. On the other hand, parents who sometimes respond with verbal threats, other times with a spanking, and still other times with food in no predictable or regular pattern are teaching the child that the world is inconsistent and that unacceptable behaviors (crying) are ways to impose some consistency.

### TEACHERS

The second most important group of people in forming the child's self-concept and in determining how the child behaves is teachers. For nearly all children beginning school is an exciting and fun adventure. Yet school also can be the place where the child experiences challenge, difficulty, and failure. The challenges come from the requirements that the child must exercise behavioral self-control, learn how to interact appropriately with peers and authority figures, and acquire a set of facts and information about reading, writing, arithmetic, and other subject content areas. The difficulty and failure occur when the child does not meet the teacher's expectations about the rate and progress of learning.

Depending upon specific experiences with parents, the child who fails to meet expected levels of academic performance and social-emotional growth in school will develop a characteristic way of responding to and dealing with the situation. This behavior (or these behaviors) will be aimed at trying to gain some recognition from significant others to validate feelings of self-worth and positive self-regard. The child who has learned to act loudly



at home to be acknowledged by parents, will probably do so in school to be recognized for something aside from school failure. Loud behaviors have been reinforced at home and the consequences are pleasant (adult recognition) for the child. Moreover, loud behavior is a way of interacting to gain recognition which the child feels comfortable in performing. When loud behaviors are met by the teacher with additional displeasure, and even verbal threats of punishment, the child's only way of gaining recognition and validation of self-worth is eliminated. The child has not learned alternative ways to gain adult approval. Most often, the teacher or the parents have not explained and demonstrated to the child alternative ways of behaving to gain their attention for acceptable performance. The child is left with a situation where his/her needs for support and confirmation of self-worth by significant others are blocked, because the only behaviors the child knows are those which evoke displeasure or outright rejection from them. In general, teachers retain their significance for students until about ages 10 to 13, depending on a number of unique factors related to the child's familial, cognitive, and social-emotional developmental rates.

#### PEERS

As the child enters adolescence a number of new experiences occur. Aside from the biological changes and feelings, the child begins to realize that he/she has some control over the environment. At home the child may begin to socialize with friends who live several blocks away rather than with children in the immediate neighborhood. In school the child is becoming physically larger and in some cases may be as tall as the classroom teacher. Academics has been an unpleasant experience for many emotionally disturbed youngsters because it evokes and reinforces feelings of inadequacy and inferiority. For the first time now the child begins to learn that she/he can choose not to participate in academic classes. The choice resides within the student because the student is assuming even greater control of his/her world. If

the teacher insists that the student read, the student can choose either to sit back passively and refuse, or challenge the teacher openly with the comment "make me read." Because of the student's increased physical size coercion, either verbally or physically, is impractical and serves no purpose but to evoke hostility from the student.

The next alternative is to meet with the parents to try to get them to force the student to cooperate. Generally, this option has limited success. Subsequent options include detention, in-school suspension, and out-of-school suspensions for continued non-compliance by the student.

In the typical school setting, this student becomes friendly with other students who may have similar problems. This immediate peer group serves to reinforce the unacceptable behaviors, and in fact, often gives the student increased status within the group for defiant behaviors toward teachers and administration. In the general peer group, the non-compliant student usually gets reinforced for defiance through a variety of verbal and non-verbal behaviors. The non-compliant student is actually playing out the need for autonomy so characteristic of adolescents, but which most are unwilling to show at such an overt level toward authority figures.

In short, the parents and teachers who were previously perceived as givers of positive reinforcement are now viewed as givers of negative reinforcement. These people serve to verify and reinforce the student's feelings of inadequacy, as do the academic classes. On the other hand, the peer group offers the student reaffirmation of self-worth. The values of the peer group are what becomes important for the student. Their values are important because they offer the student a sense of personal worth and self-esteem.

#### INSTRUCTOR ACTIVITIES

1. Relate the situation described above to the situation which occurs when using either positive reinforcement or negative reinforcement.

2. Examine the implications of the preceding discussion on the decision-making styles of adolescents in general, and emotionally disturbed adolescents in particular.
3. Given this series of circumstances what are the logical implications for the kinds of behaviors the emotionally disturbed adolescents will show in school? Emphasize how power and control are critical issues. Discuss some typical classroom situations and how the student tried to structure a power confrontation with the teacher, possibly in front of the other students.
4. What are some strategies to use in dealing with emotionally disturbed adolescents in the classroom? How can you recognize the beginnings of a teacher-student power confrontation? How can this confrontation be averted or reduced? Encourage group discussion and analysis.

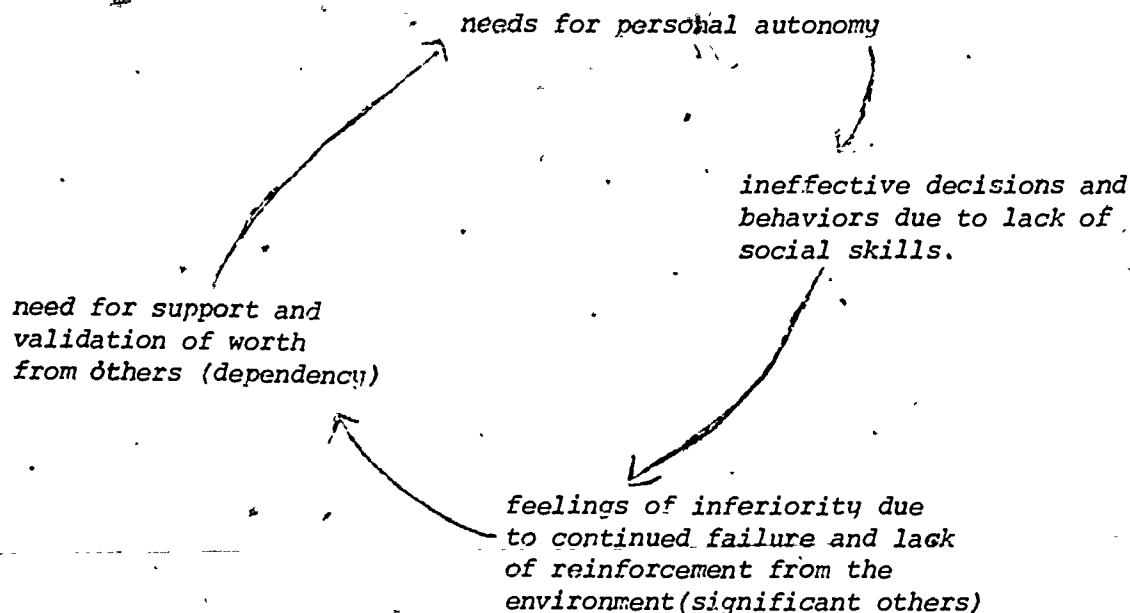
The second assumption underlying behavioral interventions is that all behaviors follow certain rules and patterns. What this means is that an individual will respond to similar situations in a way in which he/she has learned previously. It also means that the individual will respond to others in ways which have been previously learned. Because behaviors do follow rules it is possible to predict with a reasonably high degree of accuracy how a person will probably behave given a certain set of circumstances and knowledge of that person's characteristic ways of behaving and responding.

In a very real way, the manner in which a person perceives a situation will determine the specific behaviors shown in that situation. If a person feels uncomfortable around others it is likely that he/she will behave cautiously especially in new social situations. Cautious behaviors might include not initiating conversation with others, responding to questions from others with

short phrases which directly address the question, physically withdrawing from people when approached, and other similar behaviors. Feeling uncomfortable around others may be due to feelings of personal inadequacy which were learned through dealings with parents and teachers where the person was not able to meet their expectations about behavioral and performance. Even though the person is in a completely new social situation which does not involve parents or teachers, that person has learned a characteristic manner of interacting with others in the      The new social interaction is perceived, or more accurately misperceived, according to what the person has learned as a child from significant others. The person misperceives the situation according to a certain set of expectations learned and reinforced through encounters which resemble or are similar to the present situation.

These statements apply particularly to the emotionally disturbed adolescents. This emotionally disturbed adolescent has not only learned that he/she is incapable of being successful in dealing with others, but is also prompted by adolescent strivings for independence in making decisions and in behaving as he/she sees fit. The needs for autonomy are usually not realized because the emotionally disturbed adolescent has failed to learn how to perceive situations accurately, to assess various behaviors appropriate to the situations along with their implications, and to select and use alternative behaviors which may cause less conflict even though these behaviors may not fully meet personal needs for feeling in control of one's self and the world. The emotionally disturbed adolescent has not learned the appropriate social skills necessary for effective decision-making and problem-solving which would lead to increased personal independence. This adolescent is caught in the cycle of:

## CYCLE OF FAILURE



It is clear that the cycle is self-perpetuating and ultimately leads to greater problems for the adolescent in dealing with others and in understanding the reasons motivating personal behavior.

### INSTRUCTOR ACTIVITIES

1. Discuss with the group various situations in their classroom or school building which increase the occurrence of the cycle of failure presented above.
2. Are there any ways in which the above cycle could be broken? Relate ways specifically to daily situations of group members.
3. What other typical feelings associated with the psychological, physical, and/or social development of the adolescent can significantly influence perception/misperception of interpersonal dealings?

4. Review in detail how one's expectations regarding a situation influence behaviors. Break the group into smaller sub-groups for a role-playing activity. Select one person in each group to play the role of an emotionally disturbed student and to discuss his/her expectations about school. What are some possible ways in which teachers and administrators can modify these thoughts and expectations?
5. If possible, it might be very helpful to bring two or three emotionally disturbed adolescents to a session to discuss what and how they feel about school, teachers, and administration. Through discussion monitored and focused by the instructor, the participants may be able to hear first-hand from the students effective ways of controlling and responding to student needs.

One of the interesting paradoxes in life is that a person can attain greater independence by complying fully with the rules for a given social structure. For example, as a teacher it is likely that you would allow a student who has few problems in following your directions to work independently, possibly even in another area, such as the library. Yet, given another student who has difficulty following your rules and directions, independent study at the library would probably not even be considered as a learning option. It is important for all adolescents, and especially those with behavioral self-control problems, to understand this principle and to know how to gain the option. If the student learns how to follow directions he/she can achieve both the teacher's goal of reduced behavioral problems and their own goals of independence and feeling positively about themselves. Learning how to follow rules may mean that the teacher not only verbally describes the standards for behavior, but also physically demonstrates to the emotionally disturbed adolescent how to perform the desired behavior.

## PART II

### A PROCEDURE FOR INTERVENING WITH UNACCEPTABLE BEHAVIORS OF EMOTIONALLY DISTURBED ADOLESCENTS

In the preceding section a great deal of information was presented on two general areas. First, the conditions within the environment which influence learning were briefly reviewed. Second, the conditions within the psychological structure of the emotionally disturbed adolescent were briefly analyzed and presented. For any intervention program to be effective and to have lasting results across a number of similar situations (this is referred to as transfer generalization) there must be a match between the environmental conditions with the psychological structure of the student.

Traditional behavior modification programs have consistently been ineffective with emotionally disturbed adolescents in a non-residential setting. The reason for this is simple. In a residential environment where the student has lost all personal control over his/her actions there are only two options open. Those options are either to comply with the rules or to be denied privileges, forcibly if necessary. In the typical secondary public school setting this level of control over students is not possible and probably does not set a very psychologically healthy environment conducive to learning and growth.

In the public school setting the range of options available for a student is significantly greater than two. Yet, most settings are structured so as to provide only two options: compliance with rules or immediate disciplinary intervention. The disciplinary intervention, or punishment, may be detention, in-school suspension, out-of-school suspension, or expulsion. Given the data about truancy, juvenile delinquency, vandalism, numbers of school dropouts, physical assaults against educators, and poor learning gains achieved in class, it is clear that something is not working smoothly in the educational system. This is particularly so for the emotionally adolescent



in the secondary public school. These students are not controlled through traditional disciplinary measures. If it is possible to beat a particular discipline system (token economy or detention) these students are usually able to discover the method.

In the remainder of this section an alternative procedure for dealing with emotionally disturbed adolescents will be presented. You must remember that there are several initial elements to the system.

Applicability: Any treatment intervention program, be it educational or psychoeducational in nature, will not be directly applicable to all students for every given situation or setting. The material presented in this section should be used as a model by the educator to develop a behavioral intervention which works for a particular emotionally disturbed adolescent. The success of any behavioral intervention depends on a number of student variables (age, sex, intelligence, educational placement history, family status, the presence of transient environmental stresses, and so on) and situational factors (specific educational placement both in the regular and special education programs, size of the secondary school, number of students in class, and attitudes of the administration and other professionals toward alternative behavior management procedures, to name but a few). Ultimately, the effectiveness of any cognitive-behavioral intervention is related to the sensitivity of the teacher to these student variables and situational factors and to the teacher's creativity in designing, implementing, and maintaining the intervention. It must also be remembered that this model will not be effective for use with all emotionally disturbed adolescents. It is one approach that has been found to work in a treatment program dealing with aggressive adolescent males between the ages of 14 to 21 years who have a Full Scale IQ score above 80 and who are in reasonably good contact with reality. None of these students have physical or organic problems, nor are any described as psychotic, depressed, or neurotic in their psychiatric an-



psychological evaluations.

Time: The period of time for any cognitive-behavioral treatment program to begin to take effect will vary from student to student depending upon which student variables and situational factors are most significant in influencing that student's decision-making processes and behaviors. One of the most important student variables is the family environment. Problems in the home can occur at any time. The residual effects of these problems are often witnessed by teachers at school in increased negativism toward authority and occasionally aggressive or acting-out behaviors. Educators can have no, or at best minimal, control over conflicts occurring in the home. Yet, the psychological effects on the student of these home-based conflicts will be obvious in school. One of the only ways in which educators can deal with these conflicts and help the student to cope with them is by establishing a trusting relationship. Through this relationship it is possible that the student will at least verbalize that there was a conflict in the home. This will give the educator some basis for developing an alternative management strategy to adjust for mitigating circumstances.

Lapses: Irregardless how effective and well implemented any treatment program is, the educator must expect lapses in the student's behaviors. During these lapses the student may either return to behaviors which were the reason for the treatment to be implemented, or assume other behaviors which are as disturbing, or even more disturbing as the target behaviors. These lapses must be dealt with on an individual basis and will require some creativity and support on the part of the educator.

Data: Due to the large number of student variables and situational factors which exist and over which the educator has no control, it is best to collect data on the frequency of target behaviors during both the baseline and treatment.

intervention periods. It is only through useful and consistent data collection that the teacher will be able to evaluate the effectiveness of the cognitive-behavioral program on modifying student behaviors. By collecting these data you are not looking for statistically significant differences between the baseline period and the use of the treatment. Rather you are looking for a reduction in the frequency of the target behavior between those two time periods. A reduction in the frequency of behavior by one between the baseline and intervention periods could be considered a major success given the specific history and performance of a given student. This reduction of one also lets you know that the treatment is having some impact and that with minor adjustments it may have an even greater impact.

#### THE COGNITIVE-BEHAVIORAL INTERVENTION APPROACH

Clearly, there is a very close relationship between how and what one thinks and what one does. The former is referred to as cognitions, while the latter is referred to as behaviors. A person's cognitions are influenced by the kinds of information (or data) received from the environment. This process is known as perception.

Research has shown that all people perceive the world in a very selective or discriminative way. It is very difficult to process all the possible sensations which one perceives during even a 10 second eye scan. Selective perception allows you to detect only, or primarily, those data in the world which have relevance to you. Of course, people tend to seek out information from the world which is consistent with their expectations and beliefs about themselves and the world. The typical adolescent probably does this with greater frequency than any other developmental group from birth to old age. The emotionally disturbed adolescent represents the extreme within the typical adolescent developmental era in perceiving the world according to his/her personal expectations about self and the world.

If the general world is perceived as threatening and a giver of negative reinforcement and punishment, then the response is to protect and defend the self. If only certain subgroups within the general world are perceived as threatening and punitive (for example, adults in authority positions) then the response is to protect and isolate the self from these subgroups. If the adolescent is not allowed to isolate the self through avoidance, then the only option is to defend the self by resisting and fighting against this subgroup. Because state and federal laws require that students attend school until age sixteen years, avoidance is not an available option for the emotionally disturbed adolescent. The only alternative remaining to protect the status of the self and to maintain some personal dignity is to resist these subgroups. Resistance usually is obvious in two areas, the home and the school.

The first major step in any treatment program is to establish trust between the teacher and the student. Without trust very few adolescents will be receptive to complying with any intervention even if it is in their best interests. Perhaps the easiest way to begin to develop mutual trust is through talking with (not to) the student. Casual conversation about non-threatening and non-controversial topics will communicate to the student that you are interested in him/her as an individual rather than as someone who must be taught to do what is expected. Frequently, the student will challenge you about your motives for talking. One effective response is to let the student know clearly that you wish to get to know him/her because knowing about them will help in understanding their reactions and behaviors. Understanding on the part of the educator may help to avoid unjustly or unfairly accusing a student of breaking a rule or of too severely disciplining the student when a rule is broken. Emotionally disturbed adolescents have a tremendous concern about fairness in interpersonal

relationship and in punishment. Even though they may deny or appear to resent discipline, it is something they actively seek to help them deal with the perceived confusion which they experience within themselves emotionally and in the world where they want to be independent.

Trust-building is not an easy thing to achieve, nor will it occur in two or three weeks. It develops from a continuous effort on the part of the educator to deal with the emotionally disturbed adolescent in a consistent, concrete, and honest way.

#### INSTRUCTOR ACTIVITIES

1. With the group discuss some ways to establish trust, or at least rapport, with an emotionally disturbed adolescent. Are there any ways in which to speed up the formation of a trust relationship? Generate a list of strategies.
2. What are some ways to deal with the emotionally disturbed adolescent's initial mistrust of adults in authority positions? Have the group generate a list using both verbal and non-verbal techniques.
3. What are some situations which might be particularly difficult for the emotionally disturbed adolescent to deal with appropriately? Focus on situations such as the first two to three weeks at the beginning of a new school year, placement in either part-time or full-time special education classes, having a reputation with teachers for being disruptive in school, the physical size of a high school, and changing of classes several times daily. Do the situations present the opportunity for the emotionally disturbed adolescent to fail? Why or why not? Are other school arrangements possible? Discuss what some of these might be in the various

settings for various group members.

4. Examine how the principles of learning discussed in Part I relate to building trust and to developing effective decision-making skills. Focus on consistency during this exercise.
5. Before most emotionally disturbed adolescent students will respond to the requests of a teacher they must feel that what is being asked of them is done because of genuine interest in them, rather than a mere exercise of authority or power. Discuss ways in which teachers and administrators can communicate interest and sincerity to the adolescent. Again, have the participants generate a list of these various strategies, using both verbal and non-verbal techniques.
6. Is it important for the emotionally-disturbed adolescent to be placed physically in an environment which is "different" from the typical comprehensive high school setting? If it is, what are some specific ways in which a resource room, learning center or self-contained classroom can be modified physically?

#### A COGNITIVE-BEHAVIORAL INTERVENTION MODEL

Trust is an on-going process which will wax and wane throughout a teacher-student relationship. Once the teacher has established at least the basic foundation for a trusting relationship based on mutual respect it is possible to begin implementing the following procedures to modify unacceptable or inappropriate behaviors:

- A. Define the target behaviors.
- B. Collect baseline data on the target behaviors.
- C. Develop a mechanism to help the student monitor the frequency of the target behaviors.

- D. Teach the student alternative modes of behavior which are acceptable
- E. Provide the student with feedback about the quality of his/her performance.

#### Define The Target Behavior

The first step in implementing a cooperative-behavior intervention is to define the behavior(s) which the educator finds unacceptable. In dealing with the emotionally disturbed adolescent it is quite possible that the number of these behaviors is seven, eight or more. It is best to select one or probably two behaviors which are the most disruptive or unacceptable and to target these for change. Dealing with more than two target behaviors may be too difficult for some students to monitor and may be too many new behaviors to learn. Of course, the specific number of target behaviors will vary depending on a number of student-related variables, including full scale intelligence, degree of severity of the emotional disorder, and receptivity of the student to learning new ways and standards of behavior.

#### Collect Baseline Data

Baseline data should be collected using the procedures outlined in Part I of this manual. The reasons for compiling baseline data should be clear to you, the educator, at this time. If you are not clear as to which specific behaviors to target, either because the student has so many inappropriate behaviors, or because you are not sure which behaviors are most disruptive to the class, analysis of the baseline data may be helpful in determining the specific one or two behaviors which are of greatest concern. The typical way to do this is to take those two behaviors which are most frequently displayed by the student as targets. An alternative is to examine the time of day when the student shows the overall greatest number of inappropriate behaviors (without looking at any one specific behavior) and try to modify the overall environment itself, rather than just the student's behavior.

### Student Self-Monitoring System

Several research studies have indicated that the frequency of a student's unacceptable behaviors may decrease by allowing that student to keep a daily record of the frequency of occurrence of those behaviors. This is sometimes known as self-monitoring. This procedure cannot be used with all students because the student must have some awareness that the behaviors are occurring and be able to record their frequency in a consistent manner according to some preplanned system. Nevertheless, given that the student can perform these two skills self-monitoring can be a very helpful technique.

A self-monitoring system is developed by discussing individually with the student the specific target behaviors and using very concrete explanations and examples. It is often helpful to explain to the student your reasons why these target behaviors are unacceptable (i.e.) they disrupt the learning process for other students, they interfere with classroom management which is essential if learning is to occur, or they pose a potentially physically dangerous situation if they continue. The point is to try to show the student that the need for behavioral intervention lies in the teacher's interest in the welfare of the other students rather than merely being a show of force or power by the teacher to show the student who is more "powerful."

The actual self-monitoring process can occur using either a 3x5 index card, listing times of the school day and using dash marks to represent the occurrence of a targeted behavior. Poker chips, or similar objects can also be used where one is moved from the left pocket to the right pocket each time a target behavior is exhibited. At the end of each day the teacher and student should meet briefly to review the frequency of the behaviors, compare the teacher's data with that compiled by the student, verbally discuss what occurred before the student behaved unacceptably,



and to review the consequences following each target behavior. This meeting can also be used to discuss the student's feelings and needs, if appropriate. At the end of each meeting the teacher and the student should mutually agree to set a goal of reducing the frequency of the behavior by one on the following school day. If this goal is met on the next day the discussion can focus on how the student was able to reduce the frequency. This reinforces the idea that the student is in control of himself and his behaviors and is responsible for their occurrence.

A graph should be made presenting the data on a daily basis. The graph will provide a concrete visual display to the student and others of the progress achieved. This can be a very reinforcing experience to many students.

For some students the self-monitoring phase may mark the end of the cognitive-behavioral program. Self-monitoring, if accompanied by the daily student-teacher discussions, can be an effective intervention. With slight modifications by the creative teacher, the approach can be adopted for use in a wide variety of situations. There will be a certain number of students for whom this level of intervention produces at best, intermittent success. For these students, the next level of intervention will be necessary.

#### Teaching Alternative Ways of Behavior

As presented throughout this manual it should be quite clear to the educator by now that what a person thinks about a situation will determine the specific behaviors to be shown in dealing with others. With the emotionally disturbed adolescent it is reasonable to assume that a limited number of behaviors (possibly only two or three) are used to deal with virtually all interpersonal situations. In fact, if the teacher knows how a student has behaved in the past with traditional authority figures,



you can predict with a fair degree of accuracy how that student will behave in future situations involving authority figures with a similar approach.

At this level of intervention the educator will want to teach the student new ways of behaving which are more acceptable to the rules of the school setting. Ultimately, these behaviors will lead to the student experiencing success within school, at least at the behavioral level. Ideally, it is hoped that increased behavioral will result in greater learning in the subject content areas.

Teaching the emotionally disturbed adolescent new ways of behaving is not an easy process, nor will you often see positive gains behaviorally in a brief time span. The reasons for this are rather simple. At this level of intervention the educator's goal is to get the student to stop prior to doing anything, and analyze what the implications or consequences will be for a given course of action.

The process of teaching the student to stop and analyze behaviors cannot be undertaken when the student has entered a crisis situation. It must begin in an organized manner prior to this situation and a mechanism inculcated within the student so that at the time of the crisis the student will have learned the pre-requisite skills necessary to perform the alternative behavior. The following steps are involved in this process:

#### A. Situational Analysis

The first step is for the teacher and student to exercise and discuss in detail the specific situations in school where the unacceptable behaviors occur. What happens to the student to bring out these behaviors? What person(s) does these things to him/her? Does the student see any reason why the person(s) does these things?

#### B. Interpersonal Analysis

Does the student realize and understand what his role is in the way

others interact and react to him? How does the student feel in those situations? What types of things go through his mind when he is treated in the manner which brings out unaccepted behaviors? What do others think about the student, as based on the student's own personal opinion, when those unaccepted behaviors are exhibited. If the issue is inability to comply with classroom rules, discuss why rules are needed. What purposes do rules serve? This would be an interesting topic for a student group discussion.

C. Brainstorm Alternative Ways for Behavior

Establish in a direct manner whether or not the student wants to modify or eliminate these behaviors. If the student does not want to change, or even try, your only recourse is to let the target behaviors continue until the student is either suspended/expelled from school or placed in an outside facility. If the student does want to change, what other ways are available of behaving in these situations? Why will they work or will not work? Does the student feel comfortable in behaving in one of these ways? Why or why not? What are the probable consequences associated with each of the new ways of behaving in that situation? Which consequences are worth it, which are not so worthwhile? Select specific alternative behaviors which the student agrees to do and begin work on reinforcing their occurrence.

D. Learning and Practicing the New Behaviors

This step is critical to the success of the intervention. Now the talking more or less concludes, and you and the student begin to actually implement and practice the new alternative acceptable behaviors. This practice must occur to the point that the student can not only perform the behaviors skillfully and easily, but also so that the student feels comfortable in performing the behaviors. The student must feel that the behaviors are a part of his personal way of interacting and that they are not an act to cajole those in authority.

Initially, the target behavior may be task-analyzed into its essential components. These components should be sequenced in the correct order and practiced as individual behaviors. The teacher and student should discuss both the behaviors involved in each component and whether any particular feelings are evoked in the student while performing them. At some point the teacher may want to physically demonstrate either or both the target behavior and its components. Finally, the student should demonstrate the ability to perform the target behavior and its component behaviors successfully in the individual meetings with the teacher and in small groups involving other students during contrived situations.

#### E. Analyzing the Success of the New Behaviors

Now that the student has learned a new set of behaviors to replace a previously unacceptable set it is necessary that the effectiveness of these new behaviors be analyzed. The student should be prepared to exhibit the new behaviors in an actual conflicted situation and be able to evaluate how effective they were in modifying consequences which were typically encountered. What are the positive and negative consequences of these new behaviors?

The student can be taught interval cognitive controlling mechanisms to minimize the exhibition of the unacceptable behaviors. One of these is the "stop, look and think" technique. When involved in a potentially conflicted interpersonal situation, the student should speak to himself and say "Stop, before I do anything; look around - what is happening? Let me think. If I do this what could possibly happen? If I do that what will happen? Which is better for me?" The specific words in the skit can be modified to meet the verbal, intellectual, and sociocultural characteristics of the student. The key is to keep the "stop - look - think" sequence in order so that the student pauses, examines, and weighs different courses of action before doing them.

PART III

A CASE STUDY USING A  
COGNITIVE-BEHAVIORAL ORIENTATION

### Providing Feedback About the New Behaviors

Every human being needs and requires positive feedback or "warm fuzzies" from others. These "warm fuzzies" not only reinforce the probability that desired behaviors will occur, but also give the student a sense of value and that another significant person is interested enough in him/her to notice positive changes. Verbal reinforcement should not be given too freely or for insignificant actions, especially with emotionally disturbed adolescents of average intelligence on the part of the teacher. The feedback should be done on an individual basis initially until the student feels comfortable in receiving the positive reinforcement. A second means of providing feedback is through the use of pictorial or graphic displays following the frequency of occurrence of target behaviors on a daily basis. These data can be collected either by the teacher or by the student using self-monitoring techniques.

A third very important means of giving the student positive feedback is through selecting the student to perform a particular highly esteemed function, or by giving the student a special privilege. For example, it is possible to place a student on a community-based paid work experience beginning daily at 1:00, because the student has learned to control himself consistently over a three month time period from verbally abusive outbursts toward teachers and administrators. The student would be told the following:

"You have learned how to control your cussing. You've made me very proud of you. Even better, by not cursing when you're angry you've shown that you are mature and an adult. Because of these adult behaviors, I think you are ready to begin working in a paid placement..."

Feedback is an essential aspect of the treatment intervention because this is the means by which the student will be able to evaluate his/her own ability to meet the expectations of others and to behave in acceptable ways.

## SUMMARY

Throughout this section a model for dealing with the emotionally disturbed adolescent has been presented in detail. It is important that you, the educator, realize that by the time the student reaches this level of development a great deal of rejection and personal alienation have probably been experienced. Ego defense mechanisms which protect the student from further rejection are intact and usually work very well. Moreover, we as educators, have the student only a very small portion of time relative to the total day. Subsequently, the impact of most things that we do is diluted by a number of variables which we cannot control, nor can we even begin to understand their influence upon the student.

There is no sure-fire or quick method for dealing with and obviating the years of personal failure and the gross feelings of inferiority which many emotionally disturbed adolescents encounter. Given the time educators have with these students we can only hope to accomplish a small percentage of our goals. Nevertheless, most emotionally disturbed adolescents have problems in dealing with others. We can teach these students some relatively effective procedures to interact with others appropriately and successfully. Through practice and repetition it is believed that the positive techniques learned in one situation will generalize to a larger number of similar situations.

## INSTRUCTOR ACTIVITIES

1. Ask one of the group members to volunteer a nameless student with whom they are having trouble in school and design a cognitive-behavioral intervention for that student using the steps presented in this section.
2. Have the group generate a list of statements to use to communicate approval to an emotionally disturbed adolescent.

3. Discuss with the group their experiences in feeling positively or negatively about themselves as a function of an interaction with a significant other. Relate the content of the discussion to the formation of the self-concept in children and adolescents.

## CASE STUDY

### INSTRUCTOR ACTIVITIES

1. This case study exemplifies a cognitive-behavioral approach involving the use of an externally imposed consequence (time-out) on a student. With the group, discuss the advantages and disadvantages of this approach. Some of the advantages include ease in development and implementation of the treatment, expediency in the amount of time necessary for the student to respond to the treatment, and ease in setting up and controlling the environment conditions under which the desired behaviors occur. The disadvantages are that it is often difficult to use this approach with older students, aged 14 and above, because of their physical size, the inappropriateness of it for use in a high school setting where students shift among several classes each day, and the need for a high degree of coordination among several teachers for the treatment to be of maximum benefit.
2. The cognitive component is the verbal appeal as noted in the second paragraph of the Procedures section of this manual. The behavioral component is presented in the remainder of the Procedures section. The affective component is John's need for attention and recognition from others. With the group, review each of these three areas and show how they are related to the overall success of the intervention.
3. Specify under which types of school settings and for which types of student behavioral problems might this approach be most appropriate. In which types of settings and for which types of behavioral problems would the approach not be appropriate? Why?



4. How can this general approach be modified or adapted for use with a particular student with whom one of the participants is having problems at school? Involve the entire group in the development of this intervention for this student.
5. Which general principles of learning are used throughout this case study, according to the information presented in Part I? Assess the consistency of the consequences, the concrete nature of the behaviors targeted for modification, and the schedule of reinforcement used. How were these principles related to the success of the intervention? Why? How can these principles be applied within the typical classroom setting to address a wide range of unacceptable or inappropriate behaviors?

## CASE STUDY

### A TIME-OUT PROCEDURE IN A PUBLIC SCHOOL SETTING

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This study uses time-out as the primary therapeutic intervention with a 13-year-old highly aggressive male in a public school setting. Specific behaviors were listed prior to beginning TO and were explained to the child and teachers. TO was used over a 10-week period with extinction of the specified behaviors occurring after the seventh week. During an 8-week follow-up only three instances of the aggressive behaviors were observed. During the third and fourth weeks of TO the child began to show spontaneous interest in school work. Statistical analysis by an interrupted time-series program revealed a  $t(102) = -3.29$  ( $p = .0005$ ) for change in level between baseline observations with intervention and follow-up data. It is concluded that TO is a sufficiently intense aversive event of itself to alter some types of deviant behavior without direct application of positive reinforcers. It is most propitiously used when alternative response modes are made available for the child.

The use of time-out as an acceptable therapeutic procedure has gained wide acceptance in schools, clinics and hospitals. This technique involves placing a child in an environment limited in sensory stimulation contingent upon the emission of deviant behavior. Some confusion exists as to a clearly defined operationalization of the technique (Drabman & Spitalnik, 1973) with a variety of modifications of the basic approach used. The technique has often been supplemented by the use of positive reinforcers (Baron & Kaufman, 1966; Boston & Bailey, 1969; Kaufman & Baron, 1968; Mahler, 1969) with wide variation in the temporal duration of the isolation, varying from two minutes (Boston & Bailey, 1969) to 30 minutes (Wolf, Risley, Johnston, Harns & Allen, 1967) and up to two hours (Hamilton, Stephens & Allen, 1967). In some procedures the subjects are required to exhibit appropriate social behavior before the isolation period is terminated (Wolf, Risley & Hess, 1964), while others (Tyler & Brown, 1967; Zeilberger, Sampen & Sloane, 1968) impose isolation for a specified period of time.

Drabman and Spitalnik (1973) point out a number of limitations in previous research, especially those using the case study approach. This approach is really the result of therapy data, and as such, is subject to several techniques which are often employed simultaneously. Thus, the specific contribution of the contingent social isolation to the treatment effects is often obscured or confounded. Because some researchers (Tyler & Brown, 1967) fail to specify the parameters to be altered a priori, a possible change in criteria for the implementation of isolation may occur during the course of treatment. The administration of time-out may further be arbitrarily imposed by parents, teachers, or other involved personnel. As the original behavior is reduced, new behaviors may arise based on inconsistency of application (Browning & Stover, 1971) or unclear delineation of parameters to the child.

#### METHOD

##### Subject

The subject was a 13-year old male, John, enrolled in a sixth-grade public middle school who was referred to the Psychological Services Department because of extremely wild and uncontrollable episodes of acting-out behavior. This child had a history of emotional problems and at one time, was institutionalized for a six-month period. Most recently, he had been intermittently involved in traditional psychotherapy on an individual basis for a six month period, but had terminated about seven weeks prior to the initiation of TO. Reports and records maintained by school officials during the school year revealed no change in behavior during psychotherapeutic involvement. During the period immediately following therapy termination, the acting-out became more frequent and violent. The referral was precipitated when John had injured two other boys on the playground so severely that both required hospitalization for head injuries. John's acting-out occurred both on the

playground and in the classroom and often resulted in disruption of lessons. Academic achievement, as reported by teachers and later validated by diagnostic educational testing, indicated that John's academic functioning was approximately two years below present grade level. John's intellectual level, as revealed by WISC testing, suggested average intelligence.

#### Setting

John was enrolled in a school which operated on a team-teaching, departmental approach. Each school day John spent his time divided between classes with three teachers, one male and two females.

#### Procedure

A meeting was held with John's teachers to specify behaviors to be modified. The specific behaviors, of a physically assaultive nature, were as follows: throwing objects at other children in class and on the playground; hitting other children with either his hands or an object; kicking; biting; and pushing others. These behaviors were agreed upon as the most important for change and were to be the only criteria for TO. Prior to beginning TO, each teacher recorded the number of times any of these behaviors occurred on a daily basis over a two-week period to establish a baseline rate of deviant functioning. Teachers were interviewed as to how they had been handling John's behavior prior to the baseline period and the approximate frequency of his acting-out according to the list of specified behaviors. It was ascertained that his acting-out occurred about four or five times daily and that it gained him a notable degree of both teacher and peer acknowledgement.

The three teachers met with John and explained to him their concern about his behavior and his not learning, but that they were confused about how to help him in either of these areas. It was pointed out that state laws mandated school attendance for a specified number of years, with failure to

do so resulting in legal action. His disruptive and aggressive behaviors were further examined in terms of how they interfered with class lessons for the other children who wanted to learn and how unfair this infringement was. The teachers stated their sincere interest in helping him, but since he had not responded to their previous teaching approaches, it was now up to him to design his own school regimen in which he could learn as little or as much as he desired. Assurances were made that the teachers would help him as he desired.

Because of the seriousness of his behavior the teachers explained that they would be forced to exercise specific consequences for certain types of behavior which endangered the other children. The list of specified behaviors was read and explained to him and he was notified as to the consequences which would result each time one of these behaviors occurred. He would be sent to a room, eight feet X twelve feet containing only a desk and chair and no windows and would remain there alone for the duration of the class period in which he acted out, upon which he would then go to his next class (where the same rules were in effect.) He was free to take only his school books and work with him to the room.

John was given a five-day training period during which each time one of the specified behaviors occurred he would be verbally reminded of the consequences, but they were not enforced. John was then notified as to when he would begin to incur isolation for his unacceptable behaviors. Due to the practical urgency of treatment intervention, the verbal training period lasted for only one week.

Each time John was accompanied to the TO room by one of the teachers the criteria for isolation were reiterated as was his responsibility for his behavior. He was told that when he stopped physically attacking others without provocation, the isolation periods would be terminated.

Throughout the entire procedure teacher conferences with the psychologist

were held on a bi-weekly basis to ascertain John's rate of aggressive behavior and to provide teachers with support, reassurance and feedback on progress. A daily record of both the number of times John was sent to the TO room and the amount of time he remained by each teacher during the entire process.

Data were statistically analyzed for degree of interdependence with a lag-1 autocorrelation (Gottman & Leiblum, 1974). An interrupted time-series analysis (Glass & Maguire, 1963) was used to assess the total treatment efficacy.

### RESULTS

The mean daily number of aggressive acts during the baseline period was 4.6. John exhibited 22 aggressive acts during the first week and 20 during the second week. The mean daily number of aggressive acts during the verbal extinction period was 4.4 with John displaying 22 aggressive acts.

TO was employed over a 10-week period with total extinction of the listed behaviors occurring after the seventh week. The first week of TO John spent a daily average of 53 minutes isolated from his peers and in the second week a daily average of 54 minutes. During the third week of TO a drastic reduction occurred, with a daily average of 18 minutes. Two full days of no assaultive behaviors occurred during this week. From this week on the mean daily number of minutes spent in TO decreased, while the number of full days without assaultive behaviors either equalled this figure or increased. After the seventh week of intervention no self-initiated assaultive behaviors were manifested.

Twelve aggressive behaviors were displayed during each of the first two weeks of TO. During the third week of TO only five aggressive acts were observed. Weeks four through seven showed a steady decline in weekly number of aggressive behaviors.

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During the third and fourth weeks of the intervention, reports from all teachers noted not only a reduction in aggressive behaviors but also an increase in John's classroom attention and academic interest. Homework assignments were completed voluntarily and spontaneous classroom participation increased.

During an eight-week follow-up three episodes of the specified aggressive behaviors were noted by his teachers. It was ascertained that in none of these instances was John's behavior self-initiated. Since these behaviors were voluntarily based TO was not employed.

Statistical analysis of the data revealed significant results. An autocorrelation coefficient of .625 ( $p < .01$ ) was obtained. Further statistical evaluation of baseline data with intervention and follow-up data by an interrupted time-series analysis revealed an observed  $t(102) = -8.290$  ( $p = .0005$ ) for change in level. No significance was obtained between baseline data with intervention and follow-up data for change in slope.

#### DISCUSSION

No significant decrement in behavior was observed between baseline data and verbal training data. The obvious decreases in acting-out during the first two weeks of TO may be plausibly attributable to a decrease in the amount of time within which to act out. John spent so much time in isolation daily that it was virtually impossible to behave more deviantly more frequently due to temporal limitations. The third week of TO, though, revealed a large decrement in deviant behavior which suggests treatment effects attributable directly to TO. A substantial decrease in both total weekly number of aggressive behaviors (five) and daily average time spent in isolation ( $M = 3.6$  minutes) was observed. By the fourth week of TO, John was spending a daily average of only 1.2 minutes in isolation and acting out only three times during a one-week period. Thus, the amount of time within

to the chronicity of the maladaptive behaviors, operant gains procured from the behaviors, and previous environmental inconsistency in handling these behaviors.

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which to act out was not as limited as during the initial intervention weeks, but actual assaultive behaviors were significantly reduced. During the fourth week, teacher reports reflected self-initiated interest in school work with homework assignments turned in by John without coercion by either parents or teachers.

Kaufman and Baron (1968) have pointed out that TO is an aversive event which can suppress deviant behavior. The results of this study suggest that TO is a sufficiently intense aversive event in and of itself to alter deviant behavior without the application of direct positive reinforcers. (It may be argued that, in fact, the positive reinforcers in this study were peer groups contact and teacher approval. But, these are directly resultant from the TO technique itself and are not specific adjuncts employed to entice or educe socially appropriate behaviors.)

It is felt that two ancillary variables which may have contributed significantly to the positive effects of TO were the reinforcement provided by teachers for the completion of school work, and the psychologist-teacher bi-weekly conferences which seem to have helped in modifying previously negative attitudes of the teachers toward the child.

Much criticism has been directed at the efficacy of aversive techniques in modifying inappropriate behaviors. Under the appropriate conditions, punishment techniques such as TO may be extremely effective in controlling behavior (Herman & Azrin, 1964; Lovaas, Schaeffer, & Simmon, 1965). Further research suggests that punishment is of maximum effectiveness when alternative response modes are available for the child (Azrin, 1960 & Hermann & Azrin, 1964). This study supports the appropriateness of that statement.

The use of TO with the aggressive child can be an effective treatment procedure when used as the primary intervention mode. Further, it can be incorporated into a school routine with a relative degree of facility.

Although the amount of time spent in modifying the behavior in the present study was relatively long duration, this may be attributable specifically

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