Self-management procedures constitute a special case of intensive or N=1 research design methodology. In using self-management procedures, an individual becomes a personal scientist, investigating and altering his own behavior. Five broad self-management strategies are discussed. Self-observation involves precise monitoring of one's behavior. Controlling antecedents means changing the stimulus conditions of which one's behavior is a function. Contingencies are managed to control the consequences which influence one's behavior. New responses are acquired with observational learning procedures. Thought-programing techniques include all self-management strategies which are used covertly. Counseling applications of these strategies are explored. (Author)
SELF-MANAGEMENT TECHNOLOGY
FOR CLIENTS AND COUNSELORS

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Introduction

The notion of the counselor as an applied behavioral scientist makes research by the counselor an integral part of the counseling process. Intensive, or N=1, design has been suggested as being an ideal research methodology for the counselor. Specific problem behaviors can be identified, baseline data can be collected, and the baseline can subsequently be compared with the status of the behavior during and after intervention strategies have been implemented. A comparison of the data collected at significant points during the counseling process will provide feedback for altering intervention strategies to insure that appropriate changes in the target behavior take place. Thus, the client serves as his own control, while the research is being conducted by the counselor. This kind of intimate, empirical study of the individual seems highly relevant to a profession committed to the understanding and control of human behavior.

A recent development in counseling strategy is the use of self-management technology (e.g., Watson and Tharp, 1972). Procedures involving self-management technology are directed toward developing the client's capacity to regulate his own behavior. The counselor's major function is typically one of tutor and consultant as the client takes the primary responsibility for the daily operation of the change process. The value of self-management technology lies in the fact that the client learns a method of problem-solving that can be generalized to other problems. Kenner and Karoly (1972) assert that self-managing skills are not only of value but are essential in a world that evidences such rapid cultural and technological change.

The use of self-management technology is a special case of intensive research design. An individual using these procedures is both the subject and object of his own behavior. He is the experimenter who employs strategies for change, and he is the subject whose behavior is affected by those strategies. He controls himself precisely as he would control the behavior of others - by manipulating the antecedents and consequences of which his behavior is a function.

Inasmuch as a counselor's behavior is not qualitatively different
from his client's, i.e., his behavior is subject to the same behavioral laws, a counselor can also use self-management technology to change his own behavior. Counselors who are trained in self-management procedures can maintain and develop their counseling skills after formal training is completed. Much as the client becomes his own counselor, the counselor can become his own counselor educator (Elson, Johnson, and Stewart, 1973).

Self-Management Strategies

Self-management technology is best conceptualized as five broad strategies: self-scrutinizing, altering antecedents, consequeating consequenses, observing others, and controlling cognitions. These strategies have emerged from recent empirical investigations which suggest that the control of one's own actions is a function of the knowledge of and control over one's external and internal environment.

Self-scrutinizing

In order to modify a behavior, an individual must first become aware of the behavior. "Becoming aware" means that one starts to observe himself-behave; however, individuals often have little awareness of specific behaviors, and most people are not accurate observers of themselves (Thoresen and Mahoney, 1974). For this reason, self-scrutiny, or self-monitoring, typically involves keeping notes or records of the behavior to be modified. A student who reports anxiety regarding test-taking, for example, should identify and record all the behaviors and feelings he experiences and the situations which surround them. The baseline data might be collected during the course of a school week to procure a quantitative picture of the problem. Further, the data can be used to more specifically define the problem (e.g., is he anxious about non-graded quizzes and oral evaluations as well as college boards?), and to help determine its maintaining conditions. Later, as self-management strategies are employed, the student should continue to monitor his behavior. Careful self-monitoring may make him aware of improvements that he might otherwise miss, and observing these improvements over a period of time can act as a reinforcer to strengthen and maintain the desired behavior.

Often, attending to, or scrutinizing, one's own behavior can change it (Lipinski and Nelson, 1974). Individuals employing No research on themselves must take this phenomenon into account in evaluating other
self-management strategies. However, the fact that self-monitoring can change the behavior being observed makes self-monitoring a change strategy in and of itself. Johnson and White (1971) note that behavior change resulting from self-monitoring is typically in a desired direction. This is because individuals often evaluate the behavior they observe. Critical self-evaluation should help to decrease a target behavior, while positive self-evaluations will increase it.

**Altering Antecedents**

Because behavior is embedded in an antecedent-behavior-consequence matrix, events which precede behavior often control it. Thus, reading in a favorite chair might occasion lighting a cigarette, and watching T.V. may serve as a cue for munching a snack. One method of altering antecedents in order to modify one's behavior is simply to avoid the stimuli which typically evoke it (e.g., control eating candy by avoiding candy machines). In an oft-cited study, Stuart (1967) instructed an over-weight client in the use of this strategy by having the client remove all ready-to-eat foods from his home. Stuart also suggested slowly narrowing the number of situations and times during which eating could occur and gradually slowing the eating tempo. These strategies, directed at altering the antecedents to eating, were successful in helping the client control his eating behavior and thus his weight.

In some instances, it may be desirable to alter antecedents for the purpose of increasing, rather than decreasing, a response. To increase study behavior, Goldiamond (1965) recommended that a student's desk be used exclusively for studying. By limiting activity at the desk to studying, the desk itself became a cue for study.

Counselors, as well as clients, may desire to increase antecedent control of certain responses. A counselor could increase empathic responses, for example, by employing a cueing procedure (placing a "smile" sticker in a highly visible place in his office to prompt empathic statements). Techniques such as this have been used to alter antecedents and thus to change behavior in a desired direction.

**Consequating Consequences**

The most common self-management strategy is one in which consequences are arranged to support new behaviors. This procedure involves managing contingencies to insure that reinforcers or punishers follow the desired
behavior. Homme (1965) suggests, for example, that individuals who wish to improve study behavior say something to themselves like: "As soon as I finish this assignment, I will have a coke." In this way, study behavior is reinforced and should increase.

Tangible reinforcers are only one of several reinforcing consequences which can be applied to increase behavior. Cautela (1971) discussed pleasant imaginal scenes as reinforcers, and Premack's principle suggests the use of activities. Tokens have also been used as reinforcers. Rehm and Marston (1968) helped male students with inhibitions toward dating by instructing them to award themselves points for engaging in a series of interpersonal contacts with females. Closely monitoring their own progress, and evaluating themselves positively by dispensing points for their behavior, many of these students were able to overcome their fears related to dating.

In many instances, undesirable behavior can be reduced by reinforcing an alternative response which is incompatible with the undesired one. In the above example, although anxiety concerning dating was not the target behavior, it was effectively reduced by reinforcing incompatible assertive responses.

On occasion, an undesirable behavior may be most effectively altered by insuring that an aversive consequence follows the behavior. A person who overeats, for example, might require several minutes of strenuous exercise of himself each time he breaks his diet. If exercise is distasteful enough, and if the self-contract is consistently fulfilled, overeating should diminish. By consequating punishers and reinforcers in this manner, one can significantly modify his own behavior.

Observing Others

The self-management strategies of altering antecedents and controlling consequences are typically implemented to alter behaviors which have already been learned. When individuals need to acquire new or complex behaviors, carefully observing others execute those behaviors can be effectively used to promote changes in their own behavior. Nye (1973) has emphasized the role of the counselor as a relationship model for clients. Although clients can learn new responses by interacting with and observing counselors, the learning process is more often haphazard than planful. In the self-management strategy of observing others, planful observation is required. For
example, a student desiring to learn how to initiate conversations can select and observe a friendly and well-liked peer. Seemingly successful social behaviors could then be rehearsed either overtly or covertly before trying them out with others.

Counselors not only serve as models for others but can also observe (live and symbolic) models to learn new counseling skills. The counseling and psychology literature serves as an excellent source of symbolic models for counselors. Case studies, in particular, reveal how complex counseling behaviors are employed by skilled clinicians.

Counselors and clients both can carefully observe available models, try out promising behaviors, evaluate their potential utility, and incorporate into their behavioral repertoire those responses that work for them.

Controlling Cognitions

Controlling one's behavior by controlling one's mind is perhaps the oldest self-management strategy of all. In the Old Testament book of Ecclesiastes, Solomon emphasizes the role of thoughts in influencing behavior when he writes, "A wise man's heart (thoughts) direct him toward the right." In recent years, applied behavioral scientists have begun to investigate the relationship between cognitions and behavior. Their investigations have been based on the assumption that internal, or covert, behaviors are developed and modified just as are overt behaviors. In addition, they assume that altering covert behaviors can result in overt behavior change.

Cautela (1971) reports the successful use of covert reinforcement in modifying covert responses, with subsequent changes in overt behavior. His client, who wished to develop heterosexual approach behaviors, was asked to imagine himself calling a girl on the telephone. After he had dialed and said "hello," he was instructed to reinforce himself, i.e., "shift" his imagination to a scene depicting a refreshing swim on a hot day. Each new approach response was reinforced in this manner. Finally, these newly acquired covert approach responses generalized to real situations, enabling the client to interact meaningfully with females. Cautela notes that this procedure can be used by individuals for self-management purposes.

Consequences other than positive reinforcement (negative reinforcement, extinction, and punishment) have also been successfully used to alter both covert and overt behavior. Further, cognitions have been monitored and
changed by altering covert antecedents (e.g., Davison, 1969) and by observing others in imagination (Flannery, 1972). Lazarus (1971) suggests techniques for controlling cognitions. In addition to those listed above, Lazarus recommends thought-stopping, the "no what if" technique, anxiety relief, and the "blow-up" technique. Most of Lazarus' techniques are directed at controlling undesired cognitions which do not necessarily have implications for overt behavior. The possibilities for using the strategy of controlling cognitions are as exciting as they are broad.

Conclusion

Perhaps the most significant issue in self-management concerns what has been called the "contract problem" (Mahoney, 1970), or getting the individual to stick to his bargain. Self-management strategies can only be effective if they are employed consistently and conscientiously. Mahoney notes that certain learned behaviors are required to implement self-management strategies. The behaviors which initiate self-management strategies are themselves subject to change by environmental manipulation. Therefore, these self-management-initiating behaviors must be reinforced if self-management skills are to be maintained. Fortunately, self-managing responses appear to be intrinsically reinforcing. Lefcourt (1966) reports that self-control of consequences is often preferred to random or external control of consequences. Thus, when responsibility for change is placed on the individual, change may take place more rapidly, and with a greater probability of success, than if a counselor retains the control of the change process. Further, it seems reasonable to assume that the use of intensive research methodology can enhance motivation for change by insuring careful self-scrutiny and providing an opportunity for the evaluation of self-management strategies.

Counselors and clients using self-management technology in conjunction with N=1 research will be "personal scientists," conducting research upon and learning about themselves. They will not only have the power to change themselves but will also make it easier for others to expand their awareness of themselves and their freedom to act.
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