Depression can be seen as a set of deficits in self-control behavior. Proceeding from this model, a behavioral, self-control therapy program was developed. Two studies evaluated this program with depressed female volunteers. The first study compared the program to non-specific group therapy and a waiting list control condition. Both Self-Control and non-specific group subjects improved from pre- to post-testing in comparison to Waiting List subjects. Greater improvement was shown by Self-Control subjects on both cognitive and overt-behavior measures of depression and experimental measures of self-control functions. In the second study the experimental Self-Control Therapy program was compared with a behavioral Social Skills training program. While subjects in both conditions improved with therapy, the Self-Control group showed greater improvement on cognitive measures of depression and self-reported activity level. Groups improved equally in direct observation measures of verbal activity. On measures of self-control functions the Self-Control group showed greater change, whereas measures of social skills did not indicate differential change. Overall, the two studies showed that a behavioral self-control program of psychotherapy aimed at modifying cognitive and overt-motor behaviors can have a significant impact on depression. (Author)

THE MODIFICATION OF DEPRESSION BY
A SELF-CONTROL BEHAVIOR THERAPY PROGRAM

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For the past year or so I and some graduate students at the University of Pittsburgh have begun to look at depression as a set of problems in self-control. I would like to describe two studies of a therapy program derived from this self-control model of depression. I will summarize the studies very briefly putting emphasis on our approach to the problems of assessing depression and evaluating change in depression.

The therapy program has developed from the assumption that depression can be seen as a series of deficits in self-control behavior. By self-control I am specifically referring to a three stage model of self-control outlined by Kanfer (1970, 1971). In the Kanfer model, self-control is that class of self-regulatory behavior which occurs when a prior chain of behavior no longer produces the reinforcement it once did. The three stages of the process are: (1) self-monitoring, in which the person observes his/her behavior and its antecedents and consequences; (2) self-evaluation, in which the person compares these observations to a standard and makes a judgment as to his/her responsibility for the behavior (this latter attributional judgment represents an amendment to the original model); and (3) self-reinforcement, in which the person modifies his/her own behavior by self-administering reinforcement as a function of self-evaluative cues.

Depression can be seen as failure to self-control appropriately following a loss of reward or an increase in punishment. Our model suggests that depressed persons can be characterized by six
potential self-control deficits: (1) Depressed persons selectively attend to or monitor aversive events in their environment; (2) depressed persons selectively attend to immediate as opposed to delayed consequences of their behavior; (3) depressed persons set stringent self-evaluative criteria for their behavior; (4) depressed persons fail to make accurate internal attributions of causality concerning their behavior, (5) depressed persons self-reward insufficiently, and (6) depressed persons self-punish excessively.

Proceeding from this model, a behavioral, self-control therapy program was developed employing a group therapy format. The program in both studies consisted of six weekly 1 1/2 hour sessions with two week blocks focusing successively on self-monitoring, self-evaluation and self-reinforcement. Each block included a didactic presentation and discussion of self-control principles plus a behavioral "homework" assignment. In the first block concepts of self-monitoring were taught with special emphasis on monitoring deficits thought to be important to depression. Subjects were instructed to keep a log of their positive activities each day. Positive activities were defined as any rewarding activity or any activity likely to produce rewarding effects. A list of categories of potential activities was provided as a guide. The intent of this procedure was to increase monitoring of positive events and delayed outcomes and also to provide a data base for the next block.
During sessions 3 and 4 subjects chose behaviors from their logs which they wanted to increase. They were then presented with information on how to define goals in behavioral terms and how to establish realistic and obtainable subgoals which were actually within their control. After filling out worksheets of goals and subgoals, monitoring continued with special emphasis on targeted behaviors.

In the third block, concepts of self-reinforcement were presented and subject constructed self-administered reinforcement programs with reward contingencies for performing target activities.

Subjects in both studies were women who responded to media ads which stated that women between the ages of 18 and 60 who were depressed, sad or blue were being sought for a research project concerning psychotherapy for depression. Volunteers were screened according to MADPI criteria (adopted from Lewinsohn, Weinstein, & Alper, 1970) and interview criteria aimed at eliminating volunteers who were in treatment, actively suicidal or psychotic.

**Study I**

The first study, a dissertation by Carilyn Fuchs (Fuchs & Rehm, Note 1), compared the self-control program to a non-specific group therapy control condition and to a waiting list control. Two therapists were assigned to one 6-member Self-Control group and one 6-member Nonspecific group. Another 12 subjects were in the Waiting List condition. Drop outs during the first two therapy sessions and Waiting List non-returners left final Ns of 8, 10, 10 for Self-Control, Nonspecific and
Waiting List conditions respectively.

In order to assess properly the effects of the treatment programs, we wanted to select measures which would meet three goals. First, we wanted measures which would provide comparability between our population and other depressed populations and allow for some absolute standard of success of therapy. Second, we wanted measures which would assess depression across modes of expression. Since there seems to be little evidence in the literature for any simple, reliable and practical physiological index of depression we wanted to sample at least across verbal-cognitive and overt-motor modes of expression. Third, we wanted to try to measure those specific self-control deficits which were postulated by the model.

The first measures which we chose were the MMPI D scale and the Beck Depression Inventory. Both are paper and pencil self-report instruments with good standardization data available. The pretest averages of 83 on the MMPI and 23 on the Beck Depression Inventory suggest that at least in terms of a general self-report mode of expression, our subjects were clinically depressed in the moderate range and comparable to outpatient samples. In the Fuchs study both therapy groups improved significantly on these scales with the self-control group being significantly less depressed at posttest than either of the control groups. Improvement was maintained at 6 weeks follow-up. The average posttest scores for the
self-control group were 60 on the MMPI-D and 6 on the Beck Depression Inventory, indicating that in this mode improvement was clinically as well as statistically significant.

Assessing overt-motor behavior in depression is a more difficult problem. Although motor retardation is generally held to characterize depression, methods of assessment are scarce. The method we selected in this study was derived from Lewinsohn's work on coding the verbal interaction of depressed persons in groups (e.g., Lewinsohn, Eisenstein, & Alper, 1970). A 10-minute segment of group interaction with the therapist absent was videotaped during the first and last therapy sessions. The number of times each person spoke was counted as a simple measure of activity level. In addition a measure of number of persons who spoke after each subject was tallied as a measure of range of social interaction. Both therapy groups increased in verbal activity with a significantly greater increase by the self-control subjects. No differences were found on the measure of range of interaction.

In order to measure specific self-control deficits we had to rely on experimental measures of our own construction. A self-evaluation questionnaire asked for ratings of self-evaluative criteria and actual self-ratings on a variety of dimensions. Discrepancy scores were derived as a measure of negative or positive self-evaluation. Self-reinforcement behavior was assessed on a "Common Associates Test" on which subjects were asked to guess the most common associates of ambiguous words and then indicate...
whether or not they thought their response was likely to be right (a self-reward) or likely to be wrong (a self-punishment).

Another questionnaire assessed degree of agreement with a series of statements reflecting self-control attitudes and beliefs, for example, "I have extremely high standards for what I demand of myself" or "When I do something right, I take time to enjoy the feeling." The self-control subjects agreed more with self-control concepts on posttest than the other two groups. Self-control change on the other measures was in the same direction but the results were less clear cut.
Study II

In the second study (Rehm, Fuchs, Roth, Kornblith, and Romano, Note 2) we again assessed the self-control program, with minor revisions, this time in comparison to a social skill training program of comparable length. The social skill program consisted of role playing of assertion problem situations involving refusing unreasonable demands, making requests, expressing criticism or disapproval and expressing approval and affection. Sessions included didactic presentations of principles, rehearsal, group feedback and coaching, and occasional modeling. Two pairs of therapists saw one group in each of the two experimental conditions. Assertion or social skills training was employed here because a number of behavior therapists have suggested that assertion problems are central to depression. Our initial hypothesis was that both programs would be effective in reducing depression, although by different routes.

In line with this rationale the assessment strategy was to try to select verbal-cognitive and over-motor measures of depression plus additional sets of variables which might assess self-control and social skill more specifically. The MMPI-D and Beck Depression Inventory were again used in this study. Subjects in both programs showed improvement on both of these variables. Greater improvement, however, was shown by the self-control subjects. In fact the improvement shown by the social skill subjects was comparable to that shown by the nonspecific therapy subjects in the first study.

We used a different methodology for assessing overt depressed
behavior in this study. During the first and last sessions of each group, subjects were asked to say something individually about their current functioning. These statements were videotaped and rated, or scored on a number of dimensions. The self-control subjects demonstrated significantly greater increase in duration of speech and made a significantly greater decrease in negative self-references and negative references to others. Positive references to self and to others did not differ between the two conditions nor did ratings of eye contact, loudness, expressivity or fluency. Self-control subjects were rated as improving to a significantly greater degree on an overall rating of depression.

Self-control was assessed by the same measures as in the previous study. Only the concepts test differentiated the two conditions with greater increase in endorsement of self-control concepts for the self-control subjects.

As to the assessment of assertiveness, the Wolpe-Lazarus assertiveness inventory was employed as a self-report measure. Both groups improved on this measure with no significant differences between them. As a behavioral measure of social skill an audiotaped situation test was employed. Assertiveness problem situations were described on tape each ending in a line of dialogue to which the subject was asked to respond as if she were in the situation. Measures which have been elsewhere associated with social skill were derived from the taped responses. Social skill subjects increased more in duration of response, rated fluency of response and overall assertion ratings.
The self-control subjects rated their own behavior as more adequate, which is quite consistent with the nature of their therapy program. Unexpectedly, self-control subjects also made significantly more specific requests for new behavior in their assertion responses. Latency, loudness, expressivity, compliance and statements of opinion did not differ between the groups.

Thus in this second study the self-control program produced the greater decrease in depression and this tended to parallel acceptance of self-control concepts. Social skills training on the other hand, did tend to produce greater assertiveness but less reduction in depression.

In general the two studies offer support for the therapeutic potential of the self-control therapy program at least for moderately depressed persons. The effects of the program have been demonstrated by change in self-report of depression symptoms and overt behavior change in verbal activity. The program produced change in attitudes and beliefs about self-control as would be expected from the model. There is also some evidence from the second study for a differential effectiveness of the self-control program in comparison to the social skills program on measures related to the specific programs.

The model we are working from assumes that depression can be seen as a set of different behaviors related to self-control. As such the future directions of our research will be aimed at trying to assess depression by sampling depressed behavior widely and specifically across modes of expression. In addition we will be continuing to
try to assess constructs specific to the model we are trying to evaluate. While the success of a treatment program does not validate the model of depression which forms its rationale, it does seem possible to get a better idea of the mechanisms at work in the program by careful selection of dependent variables. Ultimately we hope to relate the assessment of specific self-control deficits in depressed persons to the specific elements in our therapy program in such a way that at some point in the future a pattern of deficits could be matched with a tailor-made self-control package.

Reference Notes


References

