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ABSTRACT

This paper discusses three functional classes of assessment of depression: (1) global measures for comparability; (2) specific measures of depression components; and (3) neasures of model-related dimensions. Attempts at assessing depression in two psychotherapy studies are presented. This research has been organized around a model which assumes that depressed behavior can be seen as the result of a series of deficits in self-control. A behavioral self-control group therapy program, focusing successively on self-monitoring, self-evaluation and self-reinforcement behavior; was utilized. The studies demonstrate that a self-control program can produce significant improvement on global self-report measures and on certain measures of overt-motor activity level indicative of depression. There is further need for refinement of precise measures of the many specific behaviors which the term "depression" encompasses. (Author/JLL)

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STUDIES OF SELF-CONTROL TREATMENT OF DEPRESSION

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The assessment of depression is a continuing problem for researchers involved in psychotherapy studies. I would like to outline some of the dimensions of this problem and then to describe briefly two therapy studies which we have completed at the University of Pittsburgh and how we have approached this problem of assessment.

The major problem in assessing depression is the lack of any consensually agreed upon definition of the essential characteristics of depression. Depression is more than the single symptom of sad affect. It is assumed to be a syndrome including a broad constellation of cognitive, overt-behavioral and physiological excesses and deficits.

This depression syndrome is much less amenable to simple analysis than, for example, the construct of anxiety. Depression is usually not assumed to be situational and is assumed to affect a wide variety of important response classes. Overt motor activity level is reduced regardless of stimulus situation and such diverse response classes as verbal output, eating and sexual behavior are diminished. Cognitive-verbal behavior in depression includes not only reports of sad affect but more complex attitudes, beliefs and modes of information processing, such as pessimism about the future, loss of self-esteem, and inability to concentrate. In a discussion of the diversity of symptoms attributed to depression, Levitt and Lubin (1975) list 54 symptom classes each of which is included on at least two of 16 depression assessment instruments. Various attempts have been made to develop subsets of depression behavior on etiological, factor analytic or logical bases, but still little agreement exists in the area.

Probably the most conservative assumption that can be made about this area is that depression is a heterogeneous construct and that existing instruments tap different subsets of depression behavior. Thus the depression psychotherapy researcher is left with the necessity of somehow choosing among a variety of methods for assessing a variety of behavior. One way of developing criteria for making these choices is to examine the functions which assessment of depression may serve in depression psychotherapy studies. Generally, at least three oroad functions can be easily distinguished. First, comparability between studies is a necessity. In order to evaluate a psychotherapy study we need to know whether this population sample is similar to other depressed populations. Is a given study sampling from the same albeit heterogeneous population that other researchers and clinicians are sampling? This criterion is most relevant to subject selection. Screening devices need to be chosen which allow

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comparability and replicability in other settings. Global assessment instruments chosen on the basis of standardization, validity, reliability and extent of actual use are applicable here. In general two types of instruments meet this criteria. Global self-report tests usually in paper and pencil format and interview rating scales. Instruments such as the MMPI-D, the Beck Depression Inventory, or the Hamilton Rating, Scale are examples of instruments with widespread use.

A second important function of depression assessment in psychotherapy studies is the differential assessment of specific components of depressed behavior. It is a basic premise of behavioral approaches in particular that objective, operationally defined measures, should be specified in order to evaluate precisely the effects of interventions. Assessment across different modalitites is also basic to behavioral approaches to assessment. The goal is to be able to differentiate which specific. components of debressed belavior are affected by a particular form of intervention. Questions of specificaty versus generalization of effects are addressed to these measures. A number of self-report techniques exist which are relatively specific. Much less is available to the psychotherapy researcher in the way of overt-motor or physiological assessment instruments. The time sampling of specific classes of ward becayior by Williams, Barlow and Agras (1972), and the verbal interaction coding with groups and families by Lewinsonn and his colleagues are examples of the kinds of specific overt-behavioral measures which are possible.

The third function of assessment of depression in psychotherapy research is to assess those specific dimensions which a given theoretical model holds to be central to depression. Since there exists presently a diversity of theoretical models, it is important to maintain a distinction, at least for heuristic purposes, between assessment of the heterogeneous behaviors of depression and assessment of the behavior which a particular model postulates as the core or mediator of depression.

For example, various models have suggested that depression results from social anxiety (Wolpe, 1971), deficits in assertion skills (Lazarus, 1975; Wolpe, 1971), cognitive distortion (Beck, 1972), amount of response contingent reinforcement (Lewinsohn, 1974), or in the case of our research, deficits in self-control behavior. If one is evaluating a psychotherapy procedure based on one of these models, then assessment of model-specific deficits ought to be part of the evaluation. If, in fact, depression is alleviated through modifying specific mediating deficits, then correlated changes in the deficit and other depression behaviors ought to be observed. While such correlational evidence does not necessarily validate the underlying model, it can be very helpful in elucidating relationships among components of depression.

These three functional classes of assessment of depression, (1) global measures for comparability; (2) specific measures of depression components; and (3) measures of model-related dimensions are, of course; not mutually exclusive. Specific measures of components of depression may provide comparability between studies and models may focus on specific components of depression as factors which are central or controlling of depression generally. The point is that at this present stage in the development of psychotherapy of depression, distinguishing among these three levels of assessment may have some value. At this stage we would

not want to claim that depression has been alleviated from changes in MMPI-D scale alone, nor would we want to claim that a research sample was depressed on the basis of low speech duration alone.

Given these general considerations for assessing depression, I would now like to describe some of the attempts we have made at assessing depression in two psychotherapy studies at the University of Pittsburgh, (Fuchs & Renm, in press; Rehm, Roth, Fuchs, Kornblith, & Romano, Note 1).

Briefly, the research has been organized around a model of depression which assumes that depressed behavior can be seen as the result of a series of deficits in self-control (Rehm, Note 2). The model is based heavily on Kanfer's (1970, 1971) behavioral analysis of self-control into the component process of self-monitoring, self-evaluation and selfreinforcement. The model suggests that the behavior of depressed persons can be characterized by some combination of six potential self-control deficits. These are: (1) Depressed persons selectively attend to or monitor negative events; (2) Depressed persons selectively attend to or monitor immediate as opposed to delayed consequencés of their behavior; (3) Depressed persons set stringent self-evaluative criteria for their becavior: (4) Depressed persons fail to make accurate internal attributions of responsibility for their behavior; (5) Depressed persons. self-reward insufficiently; and (6) Depressed persons self-punish excessively. A basic assumption of the model is that self-administered rewards and punishments supplement external reinforcement in influencing normal or depressed behavior, and therefore; the reduced activity level of depression results from lack of reinforcement including self-reinforcement.

Based on this model we have developed a behavioral self-control therapy program in a group format. Six weekly la hour sessions are divided into two week blocks focussing successively on self-monitoring, self-evaluation and self-reinforcement behavior.

Each block includes a didactic presentation and discussion of self-control principles plus a behavioral "homework" assignment. In the first, block concepts of self-monitoring are taught with special emphasis on monitoring deficits thought to be important to depression. Subjects are instructed to keep a log of their positive activities each day. Positive activities are defined as any activity likely to produce rewarding effects. A list of categories of potential activities is provided as a guide. The intent of this procedure is to increase monitoring of positive events.

During sessions 3 and 4 subjects choose behaviors from their logs which they want to increase. They are then presented with information on how to define goals in behavioral terms and how to establish realistic and obtainable subgoals which are actually within their control. After filling out worksheets of goals and subgoals, monitoring continues with special emphasis on targeted behaviors.

In the third block, concepts of self-reinforcement are presented and subjects construct 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 on blue were being sought for a research project concerning psychotherapy for depression. Volunteers were screened according to criteria aimed at insuring that depression was a primary and central problem and aimed at eliminating volunteers who were in treatment, actively suicidal or psychotic.

The first study, a dissertation by Carilyn Fuchs (Fuchs & Rehm, in press), compared the self-control program to a non-specific group therapy relationship control condition and to a waiting list control. Two therapists were assigned to one six-member Self-Control group and one-six-member Nonspecific group. Another 12 subjects were in the Waiting List. Non-returners left final N's of  $\mathcal{E}$ , 10, 10 for Self-Control, Nonspecific and Waiting List Control Conditions respectively

In the second study (Rehm, Roth, Fuchs, Kornblith, and Romano, Note 1), 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 occassional modeling. Two pairs of therapists saw one group in each of the two experimental conditions. Fourteen self-control and 10 social skill subjects were seen. 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.

I would like to discuss the results of these two studies together so that I can talk about the assessment strategies involved. For the \* purposes of screening in our studies, we adopted MMPI and interview criteria similar to those used by Lewinsohn and his colleagues. Our interview, however, was less structured than the Grinker interview used by Lewinsonn, and was used almost entirely to make more detailed inquiries where there was any indication of psychosis or serious suicide potential. The resulting subject population, although volunteer, does appear to be comparable to a moderately depressed outpatient population, at least on psychometric criteria. Mean scores on two global paper and pencil measures at pretest were 83 on the MMPI-D scale and 23 on the Beck Depression Inventory. These self-report scales were also used as dependent variables. Summarizing across the two studies, self-control program subjects improved to a greater extent than waiting list, nonspecific therapy or social skill subjects. The improvement here appeared to be clinically as well as statistically significant.

In our attempt to include-additional, more specific modes of assessment, we focused primarily on attempts to assess overt-motor activity level. First, we used 49 items from the MacPhillamy and Lewinsohn (Note 3). Pleasant Events Schedule. The 49 items were those found to correlate best with depression by Lewinsohn and Graf (1973), and the scale was administered in the form of a report on the prior 30 days. Across the two studies the self-control program subjects again showed evidence of greater improvement than the other three conditions in the activity level.

measure. No differences were found on the reinforcement potential measure derived from this scale.

Used in this fashion the Pleasant Events Schedule still relies on self-report. We also included direct observational measures. In the first study, Fuchs dissertation, we used two relatively simple group interaction measures. The first was the total number of speeches emitted by each person in a 10-minute period of the first and last sessions during which the therapist was absent from the group. In addition, the number of different speakers who followed a given subject was tallied, as a measure of range of interaction. Both measures were adaptations of measures used by Lewinsohn (1974; Lewinsohn, Weinstein & Alper, 1970). The self-control subjects showed a greater increase, in number of speeches than the nonspecific therapy group. No difference in range of interaction was found.

Since this measure is heavily influenced by group size, we attempted a different measure in the second study. During the first and last sessions of each group, each subject was asked to say something individually about their current functioning. These statements were videotaped and, scored for duration, loudness, eye contact, affect, fluency, positive and negative references to self, negative references to others, and overall depression ratings for the self-control subjects in comparison to the social skill subjects.

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." Neither the selfevaluation nor the self-reinforcement measures clearly differentiated the groups in either of the two studies. Self-control program subject did endorse more positive self-control attitudes and beliefs on the concepts test than either the nonspecific group in the first study or the social skills group in the second study.

In the second study we also assessed social skills independently. First, we used the Wolpe-Lazarus Assertion Inventory, a paper and pencil self-report measure. No differences were found between groups. In addition we used an audiotaped situation test in which assertion problem situations were described, ending in a line of dialogue to which subjects were asked to respond as if they were actually in this situation. Measures elsewhere associated with social skill were derived from the taped responses. These included the subjects own rating of the adequacy of their response, latency, and duration measures, counts of compliant statements, requests for new behavior and statements of opinion, and ratings of loudness, affect, fluency, and overall assertion.

In general, the social skills group did improve more on these assertion measures. Specifically, they improved more on latency, duration, loudness, fluency, and overall assertion ratings. One notable exception was the fact that self-control subjects improved more on their ratings of their own adequacy. Probably this is an indication of a change in self-evaluative criteria, a self-control dimension.

In overall summary, these studies demonstrate, that with a population comparable to moderately depressed outpatients, the self-control program produces significant improvement on global self-report measures and on certain measures of overt-motor activity, level indicative of depression. The evidence from the comparisons with other conditions and from the use of model-specific measures suggests that the improvement is paralleled by change in self-control attitude and beliefs, and is not due to the passage of time, nonspecific relationship factors, nor increases in social skills related to assertion.

At this point in time in the development of assessment procedures, for depression, the greatest need is for the further refinement of precise measures of the many specific behaviors which the term depression encompasses. This is true in terms of both verbal-cognitive and overtmotor expressions and in terms of both self-report and observational methodologies. The progress that has been made in overt-motor measures will hopefully lead to greater use of these measures by depression therapy researchers so that norms and comparisons across populations can be made on these dimensions as well. The future of our research is to piece apart the components of our behavioral self-control depression program. The success of this endeavor will depend in large part upon parallel developments in depression assessment. The "boot-strapping" effect which will result from the close association of psychotherapy and assessment research in depression is one of the more positive prospects of research in this problem area.

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