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ABSTRACT

A variety of psychotherapeutic methodologies has proliferated as a consequence of rapid growth in the need for mental health services. The effectiveness of many of these methods is questionable. Although each psychotherapeutic technique advances claims for its continued use based on clinical effectiveness, few offer adequate scientific evidence to either document or support their methodology. Only behavior therapy appears to offer scientific refutation to claims that psychotherapy does not work. (A major focus of this study concerns a historical overview of behavior therapy and a discussion of various techniques including a) reciprocal inhibition, b) assertive training, c) aversive stimulation, and d) desensitization. Emphasis is placed on related research supporting behavioral therapy's efficacy.) (Author/JS)

"The Effectiveness of Behavior Therapy"

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Gordon Allport has stated that, "Science is commonly considered to give man control over nature, but in the psychological field there is no "generalized mind" to be controlled. There are only single, concrete minds, each one of which presents problems peculiar to itself."

In an effort to treat these single, concrete minds there has proliferated a multiplicity of therapeutic modalities. Each of these various modalities has its defenders and each offers in their defense that they do in fact achieve "cures." It is very probable that those latter statements are true, however, the scientific community has long cast aspersions on these various speculative systems and intuitive methods because the proof generated to support these claims have not held up or been scientifically rigorous.

There is, however, one area of psychotherapy, which is in conformance with the scientific model -- behavior therapy.

Behavior therapy - the term was first introduced by Skinner and Lindsley in 1954 and then popularized by Eysenck in the late 50's and early 60's -- denotes the use of experimentally established principles of learning for the purpose of changing unadaptive behavior. (Wolpe, 1973). Presumably in this process unadaptive behaviors will be weakened and eliminated while adaptive habits are initiated and strengthened.

Although behavioral therapy subsumes its principles from the findings of learning theory, behavioral therapeutic techniques were employed long before learning theories existed although without the benefit of our modern day terminology - their rational at that time being based on common sense and observations. (Kanfer & Phillips, p. 16). Learning theories, proceeding from the works of Tolman, Guthrie, Hull, Skinner, etc., seek to describe processes and parameters presumed to govern all human learning. Behavior therapy based on these learning principles (i.e. a behavioral learning model) is the one psychotherapeutic modality unlike its predecessors which has consistently tried to model its methodologies on the scientific method. "It seeks to specify general functional relationships between independent variables and response classes and to discover anew in each case the particular parameters

which affect these relationships," (Kanfer & Phillips, p. 13).

There are several common assumptions on which this behavioral learning model is based. One is that it focuses on behavior and as a consequence of this it deals with empirical events pertaining to a person's activity in relation to his environment. Inferred events e.g. defenses, impulses, character traits, while sometimes considered are not used to establish explanations of the same behaviors. Second, there is a direct attack upon deviant behaviors as opposed to modification of the personality structure. Underlying mental processes that are assumed to cause symptomatic behavior are for the most part ignored because they can only be inferred. Behavior therapies recognize the importance of past events in the shaping of these learned behaviors, however only current behavioral deviations are considered for treatment. Thus stress is on not the genesis of a problem but the conditions which are currently maintaining it. Third, because the behavioral learning model encompasses all behaviors as subject to the same psychological principles, its methods of inquiry into human behavior is similar to all other methods employed by science vis a vis theory constructions, methods and criteria.

As an outgrowth of these assumptions, a clinician would view his major task as manipulating variables which are found to exercise control over socially deviant behaviors in order to change those behaviors which are conditions brought about by faulty learning.

The notion that psychological disorders can be acquired is not new, however behavior therapy with its emphasis upon the mechanisms of learning rather than on the content of what has been learned, approaches the psychological disturbance in a different and unique way.

For instance, it is commonly recognized that a habit is a consistent way of responding to defined stimulus conditions. When these consistent ways of responding fail to serve the needs of the organism, the habit, termed unadaptive, usually declines in occurance or undergoes extinction. "However some unadaptive habits, for various reasons, fail to extinguish; and it is these that become therapeutic problems," (Wolpe, p. 91).

In the behavior therapy approach, as distinguished from the more traditional approach, these specific symptoms, behaviors or habits, are selected as targets for change.

"Concrete, planned interventions are employed to manipulate these behaviors, and the progress is continuously and quantitatively monitored. Behavior therapists tend to concentrate on an analysis of particular symptoms. They devote far less attention than other clinicians to subjective experiences, attitudes, insights and dreams," (Kanfer and Phillips, p. 17).

To translate the above theory more directly to situations, the clinician obtains a patient history to try to discover the variables that may still influence the patient's behavior. In these initial interviews the therapist is usually nondirective which allows him time to listen attentively and gauge the patient's needs. These interviews are often followed with questionnaires. By the conclusion of the initial few interviews (or feeling out period) the therapist should be able to answer

1. What maladaptive responses need to be eliminated and what adaptive responses need to be acquired?
2. Can a mutually satisfying working relationship be put into effect, or have you (or will you) refer the patient elsewhere?
3. Can you describe the patient's appearance with respect to grooming, physical characteristics, motor activity (e.g., rigid posture, fidgeting, tics), manner of speaking, and attitude (e.g., friendly, obsequious, hostile, sullen)?
4. Did you notice any thought disorders (e.g., looseness of association, flight of ideas, blocking)?
5. Was there any incongruity of affect (inappropriate laughter, anger, or tears)?
6. Did you observe the presence or absence of self-recrimination, suicidal ideas, obsessive trends, delusions, hallucinations, ideas of reference, or morbid fears?
7. Have you decided whether the patient will require you to be directive or nondirective, and do you have some idea as to the pace with which therapy should proceed?
8. Do you have a fairly good idea of what the patient wishes to derive from therapy?
9. Were you able to provide the patient with legitimate grounds for hope during this interview?
10. Do you have some reasonably clear ideas as to what or who is maintaining the patient's deviant behavior?

Lazarus, p. 62.

Working with the assumption that all deviant or problematic behavior is learned, two methods for therapeutic change suggest themselves: 1. either replacement or unlearning of undesired responses through procedures developed in the learning laboratory or, 2. a modification of the environment so that antecedent conditions that control the appearance of symptoms -- in behavioral terms a discriminated operant or a stimulus-controlled respondent--no longer occur.

In an attempt to simplify the actual technical operations involved in the first method it might be helpful now to think of maladaptive behavior as either maladaptive avoidance responses or maladaptive approach responses.

Maladaptive avoidance responses, include phobias, fear of failure, fear of criticism and anxiety which is "generally a central constituent of neurotic habits," (Wolpe, p. 21). Anxiety is defined by Wolpe as an individual organism's characteristic pattern of autonomic responses to noxious stimulation and can result in an inability to work, impaired capacity for social interaction or impaired sexual functioning. These maladaptive avoidance responses have been treated by counterconditioning or reciprocal inhibition procedures developed by Joseph Wolpe and include desensitization, assertive training, and aversion relief therapy.

Briefly the principle behind reciprocal inhibition is that "if a response inhibiting anxiety can be made to occur in the presence of anxiety evoking stimuli, it will weaken the bond between these stimuli and the anxiety", Wolpe, p. 17).

In Wolpe's method of reciprocal inhibition the subject receives training in deep muscle relaxation - usually an abbreviated version of Jacobson's training method. Relaxation is used as a response that is antagonistic to anxiety. At the same time a hierarchy of anxiety - eliciting stimuli is constructed. Then relaxation is counterposed with the stimuli from the hierachy. Thus subjects are exposed to a weaker form of the same conditioned stimulus that is presumed to have originally been conditioned to anxiety through association with some potent unconditioned stimulus. Thus in this systematic desensitization procedure the conditioned emotional response is produced but at very low levels of intensity.

Three recent studies (Rachman, 1965; Davison, 1968; Farmer and Wright, 1971) have found that subjects receiving the entire sequence show significantly more improvement than either those receiving relaxation treatment alone or those receiving scene presentations but no relaxation.

Variations of this method include in vivo presentations of the items after the original items have been imagined and "modelling" (Bandura, 1968) which is the presentation of situations which produce immitative behavior e.g. subjects observe a fearless model make increasing contact with a feared object.

Kanfer and Phillips in a review of the treatment effectiveness of desensitization emphasize that "studies substantiate the utility of Wolpe's procedure. Beyond that, they also stand as clear-cut demonstrations that circumscribed phobic responses can be reduced without knowledge of the presumed causes, and that treatment of a specific pathological behavior pattern does not require elaborate probing into the subject's attitudes and life experiences," (Kanfer and Phillips, p. 155).

Assertive training is "applicable to the deconditioning of unadaptive anxiety habits of response to people with whom the patient interacts" (Wolpe, p. 80). Wolpe defines assertive behavior as "the proper expression of any emotion other than anxiety towards another person," (Wolpe p. 81). The therapists attentions in this technique are aimed at reinforcing every impulse towards the elicitation of the inhibited response with the expectation that reciprocal inhibition will occur, (i.e., an inhibition of the anxiety will result in some degree of weakening of the anxiety -- response habit). Reciprocally, assertiveness is reinforced by its producing a favorable social consequence e.g. control over social situations and the reduction of anxiety.

With maladaptive approach responses such as obsession, compulsion, homosexuality, alcoholism, or stealing therapists have employed aversive stimulation in the reduction and/or elimination of the frequency of the faulty approach behavior. The usual technique of aversive stimulation couples a shock with a socially undesirable stimulus -- a la Clockwork Orange. Other procedures include Cautela's covert sensitization where "neither the undesirable stimulus nor the aversive stimulus is actually presented." These stimuli are presented in imagination only. The word "sensitization" is used because the purpose of the

procedure is to build up an avoidance response to the undesirable stimulus," (Cautela, p. 459), in a method very similar to Wolpe's sensitization procedures. Implosion therapy (Stampfl and Levis, 1968), another method, utilizes neither relaxation nor a graded hierarchy but rather substitutes an immediate presentation of an intense level of fear arousal with the expectation that there will be a diminution of anxiety. This theory is based on the "original Pavlovian extinction principle which describes the reduction in response (CR) as a result of presentations of the CS without UCS," (Kanfer & Phillips p. 172).

Regarding the second method for therapeutic change - modification of the environment so that antecedent conditions that control the appearance of symptoms no longer occur several methods of environmental engineering exist. They are all commonly termed "behavior modifications". Token systems are but one example of using reinforcement to strengthen or extinguish behavior, to gradually shape new constellations of responses through rewarding successive approximations, or to bring behavior under more appropriate discriminative stimulus control. A knowledge of Skinner's pioneering work is useful here to discuss the potency or variety of reinforcers and the types of contingency schedules. This operant model of behavior therapy is especially well suited for institutional settings e.g. hospitals, schools and penal institutions. Additionally, it is possible for a parent well trained in behavior modification usage to take optimum advantage of the home situation to create a more constructive environment. Many questions relating to ethical considerations are involved here and are regularly debated.

Admittedly the foregoing discussion of behavior therapy techniques was a brief overview of the various modalities available. However, with it as a background some discussion as to its effectiveness might now ensue.

Because of its scientific orientation, behavior therapy has generated a multitude of studies concerning its techniques and effectiveness. A case in point is a compilation of bibliographies dealing with behavior therapies treatment of autism and childhood schizophrenia, eating disorders, impotence and promature ejaculation, obsessions and compulsions, psychosomatic disorders, sexual deviations, alcoholism, etc. collected by Dr. Larry Goodlive's graduate class in Behavior Therapy, 1974 at S.U.C. New Paltz.

"While it is recognized that the "conduct of clinical research with an experimental design using actual patients in a natural clinical setting, is necessary for answering questions" (Kanfer and Phillips, p 317) of efficacy of behavior therapy, it also presents problems.

Kanfer and Phillips have listed several practical considerations which complicate the clinicians scientific and technical approach. For example, consideration must be taken of the many problems that people cope with in their daily lives and the obvious fact that the clinician cannot isolate his intervention in the patient's life from the many other influences which also affect the patient. (Kanfer and Phillips, p. 25). Additionally "a practical approach to the resolution of a specific problem is influenced by the practical limitations imposed by society, patient and therapist," (Kanfer and Phillips, p. 24) thus for example, to change the maladaptive behavior of a child by removing him from his parental home while it might be the most propitious form of treatment obviously can not be done. Finally, although the clinician knows the importance of research in contributing to the underpinnings of therapy as a science rather than as a form of witchcraft, he is ethically primarily responsible for achieving improvement in his patient's behavior and this may preclude objective scientific manipulation.

It must also be noted here that one finds in the literature many references to the fact that there are important therapeutic interactional influences occuring which while desirable on one hand make the experimental aspect of therapeutic research all the more difficult. For instance, the "interaction of clinician with client during assessment or treatment procedures tends to increase opportunities for a strong biasing effect in the clinician's observations and his measurement of behavior," (Kanfer and Phillips, p. 33) and also that "the subtle interdependencies of the two members of a therapy dyad increase the contamination of the clinician as participant and as observer." (Kanfer and Phillips, p. 33). Although these influences are probably less contaminating in a behavioral therapy setting, researchers note that they do occur. (Murray and Jacobson).

It is to the credit of many psychologists and therapists -- most of whom have an academic background, who have not buried their heads in the sand and taken the easy way out by claiming "it works because I say so -- believe me," and who have overcome some of the limitations imposed by practical considerations to have produced voluminous reports of research findings relative to the effectiveness of behavior therapy.

Parenthetically, to overcome some of these obstacles there are two main frames of reference in which clinical research has been done i.e. idiographic and nomothetic studies. The idiographic method -- the study of individual subjects in detail -- although having the distinct disadvantage of limiting precision in predicting probable relationships among classes of events because of its in-depth study of one individual, provides for the establishment of norms for that individual which preserves the richness of individual differences and improves the prediction for that single case (Kanfer and Phillips, p. 30).

The idiographic method utilizes cumulative response curves which present the changes in the rate of a symptomatic response. Reports which feature single cases with specific descriptions of the target symptoms are used to support this method. There is, however, usually "replication with several cases, independently described which serves to attest to the generality of the therapeutic effects of the procedure" (Kanfer and Phillips, p. 40).

On the other hand, the use of the nomothetic method -- the study of limited behaviors in many subjects -- questions the utility of single case studies while simultaneously striving to predict individual behavior from knowledge about other persons with similar characteristics.

> The advocates of this group data approach generally rely heavily on statistical hypotheses in the design of their experiments. Such designs in behavior therapy research usually deal with common symptoms in a fairly homogeneous population and contrast average improvement in experimental groups with untreated controls or groups treated by other means. One example of such research is a study by Paul (1966) designed to compare the effectiveness of a behavior therapy method with more traditional treatments. Paul selected college students with fears of public speaking and rested his conclusions on the mean changes (improvement) of the various groups on a series of measures, evaluated by sophisticated statistical tests.
>
> Kanfer and Phillips, p. 39.

Regarding behavior therapies specific effectiveness, Wolpe in The Practice of Behavior Therapy devotes an entire chapter to an evaluation of this modality. The research findings

that he presents support his contention that "statistical studies of the effects of behavior therapy by competent therapists have shown that almost 90 percent recovery or marked improvement may be expected among patients who have had a reasonable amount of exposure to behavioral methods" (Wolpe, p. 9). Additional claims for the superiority of behavior therapy are based upon numerous case studies collected for example by Ullman and Krasner, Kanfer and Phillips, Goldfried and Merbaum, and Bergin and Garfield.

Presenting a more balanced view Murray and Jacobson in Bergin and Garfield's Handbook of Psychotherapy and Behavior Change cover in an extensive review of the literature both supporting and non supporting evidence as to behavior therapy's effectiveness. Their general findings are that although the changes that occur in behavior therapy have been attributed to classical conditioning or simple reinforcement effects, recent evidence indicates that "complex cognitive, emotional and motivational changes operating within a social context" (p. 723) contribute to these effects. However the fact that behavioral changes do occur and that it "often results in nonspecific adaptive effects in the patient's life" (p. 729) which carry over and effect other portions of their life is significant. More research is needed before definitive statements either way can be made and behaviorists are the first to recognize that need.

In closing, probably the most impressive thing that can be said for behavioral learning model as a therapeutic modality is that it's practioners are, for the most part, attempting to scientifically document its results, both as to its effectiveness and to why it is effective and their results have been impressive.

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