DOCUMENT RESUME

ED 106 726 CG 009 792

AUTHOR Ochiltree, James K.; And Others
TITLE A Cognitive Self-Instructional Modeling Approach Vs. The Carkhuff Model For Training Empathy.
PUB DATE Apr 75
NOTE 19p.; Presented at the Annual Meeting of the American Educational Research Association (Washington, D.C., March 30-April 3, 1975)

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS *Behavior Patterns; College Students; *Communication Skills; Comparative Analysis; *Empathy; *Models; Research Projects; Speeches; *Training
IDENTIFIERS *Carkhuff Empathy Training Method

ABSTRACT

Forth-two subjects were randomly assigned to two empathy training treatments. One treatment, approximating Carkhuff's training method, employed didactic teaching, discrimination training, modeling, experientially-oriented communications practice, and feedback. The second treatment, a cognitive self-instructional modeling approach, included each of these components plus the behavioral rehearsal of the thought process leading to an effective empathy response. Although the thought process was observed and practiced orally, the overt-verbalizations were faded to covert behaviors by the end of treatment. The dependent measures consisted of pretest and posttest empathy ratings of responses to videotaped emotional stimuli. A repeated measures analysis of variance was employed on the data. Although both treatments showed substantial gains on empathy from pretest to posttest, the cognitive self-instructional group gained significantly more in their empathy ratings than did the Carkhuff group. Implications of the results were discussed. (Author)

A COGNITIVE SELF-INSTRUCTIONAL MODELING APPROACH VS. THE CARKHUFF MODEL FOR TRAINING EMPATHY

James K. Ochiltree

Geoffrey G. Yager

Dennis M. Brekke

University of North Dakota

Session # 22.08

American Educational Research Association
Annual Meeting
Washington, D. C.
April, 1975

A COGNITIVE SELF-INSTRUCTIONAL MODELING APPROACH VS. THE CARKHUFF MODEL FOR TRAINING EMPATHY

Most counselors and therapists would agree that a good client-counselor relationship is facilitative of constructive client change. Empathy, or the effort by a counselor to understand and to communicate the client's thoughts and feelings, has been widely accepted as a primary component in the establishment of an effective counseling relationship (Carkhuff, 1972; Truax & Mitchell, 1971).

Carkhuff (1969) has defined and researched an empathy training technique which is widely used in counselor training programs. Carkhuff's approach includes didactic teaching, discrimination training, experientially-oriented communications training, and exposure to a highly functioning model. Additionally, the Carkhuff method makes extensive use of specific feedback primarily in the form of an empathy rating scale. Research employing such a program has been consistently effective in developing empathic communication (Carkhuff, 1969).

Recent experimentation by Meichenbaum and his associates (Meichenbaum, 1971, 1973; Meichenbaum & Goodman, 1971; Meichenbaum & Cameron, 1973) has presented data which can be meaningfully related to the development of empathic communication. In assessing model characteristics in reducing avoidance behavior, Meichenbaum (1971) found that a model who self-verbalized concerning fears, questions and mistakes (i.e., a "coping model") fostered significantly more modeling than did a self-confident, fearless and flawless

model (i.e., a "mastery model"). The addition of behavioral rehearsal of coping behavior similar to the coping model was found essential in training impulsive children to be more reflective (Meichenbaum & Goodman, 1971) and in shaping increased social behavior in adult schizophrenics (Meichenbaum & Cameron, 1973).

To summarize the above research, Meichenbaum has developed a procedure, the cognitive self-guidance-training technique, designed to modify a client's self-verbalizations. In this procedure a coping model first exhibits appropriate self-verbalizations from the following categories: (1) comments about physical sensations and bodily reactions (e.g., sweating and butterflies); (2) questions and answers about the nature of the task (e.g., cognitive rehearsal and planning); (3) self-instruction in the form of self-guidance; and (4) self-reinforcement. Since the self-verbalization behaviors of the coping model are not necessarily desired as <u>overt</u> outcomes of training, Meichenbaum's method includes a "fading" procedure in the client's behavioral rehearsals. After observing the coping model, the client performs the same task with experimenter instructions; next the client performs while instructing himself/herself aloud; then the client performs with whispered self-instructions; and finally the client performs while instructing covertly.

The cognitive self-instructional modeling approach was easily adapted to the training of empathy in the present study. It was hypothesized that the explicit use of self-verbalizations, coping models and faded behavioral rehearsals would make the cognitive self-instructional modeling approach significantly more effective in training empathy than the

Carkhuff training approach.

METHOD

Subjects

Subjects were volunteers from an introductory psychology course at the University of North Dakota who knew that the study would involve training in communication skills, that it was a six hour committment spaced over a two week period, that all of the required psychology "research credits" would be earned by participation, and that they would be randomly placed in either a six o'clock or seven-thirty group. Subjects received psychology "research credit" for participation in the experiment.

Sixty-four students signed a list indicating their desire to participate. These sixty-four students were randomly assigned to two large groups: one to be held at six o'clock, the second at seven-thirty. Fifty-one subjects attended the first meeting. Nine of these (five from the early group and four from the late group) dropped out of the study prior to the second meeting. The remaining forty-two subjects completed all four sessions. Due to unanticipated and unavoidable scheduling problems, three subjects had to change their meeting time: two from the later to the earlier time; one in the reverse direction. This left the two overall groups at twenty-one subjects apiece. Seven small practice groups of three subjects each were randomly determined for each treatment group.

The sex distribution was equal for the subjects completing the study. Their average age was 19.3, and seventy-six percent were freshmen.

Primarily North Dakota residents, half had come from hometowns of less than 10,000.

Instrumentation

The dependent measures of the study consisted of pre- and post-training empathy ratings on Carkhuff's (1969) five point empathy scale. For the pre-test, subjects were exposed, at the start of their initial session, to ten videotaped emotional vignettes of approximately a minute in length. The subject was asked "to imagine that the person in the segment is talking directly to you," and, then, "to write a response to this person which conveys your understanding of what is going on with the person in the segment."

During the last half hour of the final session, subjects were randomly assigned to one of two rooms which contained either three or six recording stations. A second set of videotaped emotional vignettes were played and the subjects were asked to respond verbally into the audio-recorder provided. Recording stations were set far enough apart to assure that subjects could not hear nor be distracted by the responses of others in the room. The only change from the pretest instructions related to making an oral rather than a written response to the vignettes presented.

All empathy responses were rated in a random order by each of three trained empathy raters. The random order of rating guaranteed that the treatment condition of each subject was unknown to the rater. The average total rating (empathy score for ten vignettes by three raters) served as the subject's final score for both pre- and posttests. The interrater

reliabilities for individual ratings of empathy (Ebel,1951) were .94 for the pretest, .77 for the posttest, and .98 for the combination of both. The corresponding standard errors of measurement were .524, .186, and .212.

Treatments

An outline of the treatment procedures appears in Table 1. Each experimental group received four 90 minute training sessions, a total of six hours of training over the course of ten days. The initial meetings were identical for both groups and consisted of two segments. First, subjects were administered the videotaped pretest. Second, they were exposed to an hour videotaped didactic presentation of the concepts relevant to the expression and rating of empathy. After this session, the uninspected pretests were filed until the end of the training period. Also at this point, a coin toss determined the assignment of treatments. The early group became the Meichenbaum approach while the late group was assigned the Carkhuff model.

Insert Table 1 about here

Subjects in the Carkhuff training group were randomly assigned to practice triads at the start of the second session. Following a five minute review of the videotaped lecture, an observer feedback form was introduced. This form contained columns for (a) the emotions expressed by the helpee, (b) a summary of the helper's response, and (c) the Carkhuff rating for that individual helper response.

Subjects were then asked to observe a videotaped empathy model and simultaneously began discrimination training by rating the model on the observer feedback form. A sample rating of the feedback form was passed out

to the subjects and a few questions were answered but group interaction was discouraged. Triads were assigned to separate rooms and instructed to practice empathy skills. During this practice period each subject had the opportunity to present a role-played concern (helpee), to serve as an empathic communicator (helper), and to act as a feedback-observer of the other triad members. After twenty-one minutes of practice the entire group was reassembled to observe and rate a second model. As with the earlier model, a sample feedback evaluation form was distributed and questions were answered. A second practice round of twenty-one minutes was carried out in the assigned triads in their assigned rooms. At the conclusion of the second session, subjects were given three written helpee statements to which they were asked to write empathic responses. These forms were read, rated, and freely commented upon by a trained empathy rater. These forms were returned to the subjects at the beginning of the third meeting. As will be explained later, the cognitive self-instructional modeling group also responded to these same stimuli. The rater, blind as to treatment condition, scored and wrote feedback on these forms in a random order.

The third session consisted of viewing and rating two additional video-models. Two practice sessions of twenty-one minutes were also included in the same manner as outlined in the second meeting. The final meeting time was scheduled so that there were no more than nine subjects present at any one time. This restriction reflected the presence of only nine recording stations for the posttest. During the final session, one full hour was devoted to practicing empathic

communication within the triads while employing the subjects' own concerns as stimuli. Two trained empathy raters, unaware of the specifics of the study, gave systematic feedback to all triads. Each rater spent an equal amount of time with each triad. In the remaining portion of this session, the videotaped posttest was administered.

The cognitive self-instructional modeling approach (the Meichenbaum method) closely paralleled the Carkhuff treatment with the addition of Meichenbaum's (1973) training methods. Following the identical first session, the self-instructional group's second session also involved the five minute review of the empathy lecture. Subsequently, subjects were given an overview of the cognitive self-instructional training sequence (i.e., guided practice of self-instructions; overt self-verbalizing; whispered self-verbalizing; and, finally, covert self-verbalization and self-instruction). The six major questions (self-verbalizations or self-instructions) that were stressed as being helpful were explained: (a) What has the helpee verbally expressed about his/her feelings? (b) What has the helpee expressed non-verbally about feelings? (c) How would I feel if I were the helpee? (d) How do I feel right now? (e) What might be my practice response? (f) Can I "pat myself on the back" for anything I've actually said or for anything that I may have learned about the helpee? These six questions, of course, correspond directly to Meichenbaum's (1973) categories of verbalization in his cognitive self-guidance-training technique.

Following the brief overview of the treatment, subjects were

given an observer feedback evaluation form identical to the one given to the Carkhuff treatment except that it also included the six key questions. Subjects were asked (a) to observe a videotaped model who arrived at an empathic response by "thinking out loud," (b) to check the number of times each key question was addressed in the model's overt verbalizations, and (c) to rate the model's empathy response on the Carkhuff scale. The helper, helpee, and the concern discussed in this videotape were identically the same as those in the Carkhuff treatment. The only difference between the two models was the presence or absence of self-verbalizations. The subjects received sample completed observer feedback forms to compare with their own ratings. Questions were answered by the experimenters, but group interaction was discouraged.

The large group was divided into the randomly assigned triads to practice empathic communication. At this point in the study, each subject was given the opportunity to present a role played concern, to think out loud and respond empathically, and to guide the helper's overt thinking by asking the six important questions. Following twenty-one minutes of practice, the triads were reassembled and all subjects observed another overtly-verbalizing empathic model (again, helper, helpee, and problem were identical to the Carkhuff model). Ratings were made by subjects, and another sample observer feedback form was passed out. Twenty-one minutes of overt, self-verbalized, unguided practice followed. As with the Carkhuff condition, the three written helpee statements were responded to by the subjects prior to the

conclusion of this session. These were returned, with feedback, at the beginning of the third session.

The third session began with a brief review of the training sequence and of the six key self-instruction questions. After seeing a coping model whispering self-verbalizations, triads practiced empathic communication for twenty-one minutes with whispered verbalizations. In the second half of the session, subjects saw a coping model making covert self-verbalizations. This was the same model as viewed by the Carkhuff treatment during the second part of its third session. A twenty-one minute covert-verbalization paractice concluded the third session. The last session of the self-instructional condition was totally identical to that of the Carkhuff treatment. In fact, subjects in the two treatment groups overlapped times during this final session.

RESULTS

Since there was considerable (and encouraged) interaction among triad members, individual subjects could not be considered to have received the treatment independently of one another. Therefore, the triad group means were chosen as the appropriate experimental unit for the analysis. Since nearly all of the stimulus materials were presented via videotape, little subject interchange occurred within the larger treatment group divisions. Means and standard deviations of average empathy ratings for the two treatments on pre- and posttests are reported in Table 2.

Insert Table 2 about here

The data were analyzed using a two-factor analysis of variance with repeated measures on the pretest/posttest factor (Winer, 1971). The

dependent measures in this design were the average empathy ratings for each practice group triad. The results of the analysis of variance appear in Table 3. There was a significant interaction between the pretest and posttest factor and the treatment factor, $F=8.6$, $p<.05$. Additionally, there were significant main effects for pretest to posttest gain, $F=278.2$, $p<.01$, and for overall mean differences between treatment conditions, $F=14.4$, $p<.01$.

Insert Table 3 about here

To make sense of these significant results, one must return to the table of means (Table 2). The testing by treatment interaction is an indication of a significantly larger gain in empathic ability for the cognitive self-instructional modeling condition than for the Carkhuff approach. The pretest-posttest effect represents a significant growth in the ability to empathize from the beginning to the end for both treatments. Finally, the significant overall treatment effect points to the fact that the subjects in the Carkhuff treatment averaged better scores across the combination of pretest and posttest.

DISCUSSION

This experiment investigated the hypothesis that a cognitive self-instructional modeling approach would be more effective than Carkhuff's technique in the training of empathy. It was anticipated that the explicit use of self-verbalizations, coping models, and faded behavioral rehearsals would make the cognitive self-instructional modeling more effective than a Carkhuff control which did not use these methods.

The repeated measures analysis of variance performed on these data provide support for this hypothesis. Despite a random assignment which gave the Carkhuff condition a significant edge before treatment, the gains of the cognitive self-instructional modeling treatment were significantly greater than those of the Carkhuff condition. What was originally a wide split in initial ratings (Table 2) was reduced to a difference of a few hundredths of a point on the posttest.

It is also of some importance to note the dramatic jump in empathy scores from pretest to posttest. With only a six hour training, subjects were responding just below the level which Carkhuff rates as interchangeably facilitative. This result reflects favorably upon both Carkhuff and self-instruction treatments.

Several alternative explanations of the results must be considered. First, the obtained significance may have been an artifact of the group meeting times. Since the cognitive self-instructional modeling treatment was conducted from six o'clock to seven-thirty, the subjects and experimenters may have been more alert and enthusiastic than at the later time. Although this hypothesis cannot be totally ruled out, there were attempts made to control for this issue. Experimenter fatigue was controlled through the use of videotaped presentation of nearly all stimulus materials. Subject fatigue was controlled through randomization: both subjects and treatments were randomly assigned.

A second possible competing explanation of the data suggests that a six hour training could not expect to develop empathy beyond an average rating of about 2.75 no matter how well presented. If such is the case, then the superior performance of the Meichenbaum self-instructional

approach was due to the chance pretest differences. A closer examination of the data provides additional support for this possibility: the correlation between pretests and posttests for all subjects was very close to zero (-.17) and nonsignificant. Were there, in fact, a ceiling effect on the possible amount of learning in a six hour empathy training, there would similarly be no correlation between pretest and posttest scores. (However, it must also be stated that it is possible that a written empathy response is unrelated to an oral communication of empathy!) Further research is certainly needed to clarify the questions raised by this explanation of the results.

A final possible way to look at the findings of this study would be to regard treatment differences as the result of certain modeling effects in the posttest situation. The visual contact between subjects at different recording stations within the same room may have somehow produced systematic differences between groups. This would have been a very serious criticism had subjects been assigned to recording stations according to their treatment groups. However, since subjects were randomly assigned to recording stations, any variance attributable to this source was included in the error variance in the analysis. The fact that this contributed to the error variance suggests that support for the hypothesis may have actually been underestimated.

The significant results of this study do suggest that Meichenbaum's recent work with cognitive self-verbalizations and coping models can tentatively be extended into the field of counselor training. By focusing upon the thought process involved in making an empathic response, subjects appear to have been able to learn the skill of empathic

communication more rapidly. Clearly, however, additional research is needed to clearly isolate and identify the importance of the subcomponents of what is now an admittedly complex training procedure.

TABLE 1

Outline of Treatment Procedures

	Carkhuff Empathy Training Model	Cognitive Self-Instructional Modeling Approach
I	One half hour written pretest in response to videotaped empathy stimuli --- One hour videotaped explanation and demonstration of empathic communication and Carkhuff's empathy scale	
II	Brief summary of empathy videotape and introduction of the observer feedback form	
	Empathy Model A* (10 minutes)	Empathy Model A - "thinking out loud" (10 min.)
	Practice in Triads (21 minutes)	Practice in Triads - guided practice (21 min.)
	Empathy Model B (10 minutes)	Empathy Model B - "thinking out loud" (10 min.)
	Practice in Triads (21 minutes)	Practice in Triads - unguided overt thinking (21 mi
	Subjects write empathy responses to three client statements	
III	Return of feedback on written empathy responses	
	Empathy Model C (10 minutes)	Empathy Model C - whispered thoughts (10 min.)
	Practice in Triads (21 minutes)	Practice in Triads - whispered thoughts (21 min.)
	Empathy Model D - Covert thoughts (10 minutes)	
	Practice in Triads - Covert verbalizations (21 minutes)	
IV	One hour practice within the triads while receiving systematic feedback from two empathy raters blind as to experimental conditions --- One half hour audiotaped posttest in response to videotaped empathy stimuli	

* Model client, model counselors, and the problems presented were the same in both treatments. The difference between treatments was only in the model's overt verbalization of the thinking process.

TABLE 2

Means and Standard Deviations of Pretest and Posttest

Empathy Ratings for Treatment Conditions

Treatment Condition	Empathy Ratings			
	Pretest		Posttest	
	M	SD	M	SD
Cognitive Self-Instructional Modeling Approach (Meichenbaum)	1.4722	.1612	2.7202	.1040
Carkhuff Model	1.8714	.1975	2.7460	.1574

TABLE 3

Repeated Measures Analysis of Variance for Pretest and Posttest Empathy Ratings of the Fourteen Practice Groups

Source of Variation	df	SS	MS	F
Between treatment groups	13	.5796		
Meichenbaum vs. Carkhuff training (T)	1	.3162	.3162	14.4035**
Groups within treatments	12	.2634	.0220	
Within treatment groups	14	8.4680		
Pretest vs. Posttest (P)	1	7.8840	7.8840	278.1887**
P X T	1	.2439	.2439	8.6065*
P X Groups within treatments	12	.3401	.0283	

* $p < .05$

** $p < .01$

REFERENCES

Carkhuff, R. R. Helping and human relations: A primer for lay and professional helpers. Vol. I. Selection and training. New York: Holt, Rinehart, & Winston, 1969.

Carkhuff, R. R. The development of systematic human resource development models. The Counseling Psychologist, 1972, 3, 4-11.

Ebel, R. L. Estimation of the reliability of ratings. Psychometrika, 1951, 16, 407-424.

Meichenbaum, D. H. Examination of model characteristics in reducing avoidance behavior. Journal of Personality and Social Psychology, 1971, 17, 298-307.

Meichenbaum, D. H. Cognitive factors in behavior modification: Modifying what clients say to themselves. In C. H. Franks and G. T. Wilson (Eds.), Annual Review of Behavior Therapy. New York: Brunner/Mazel, 1973, Pp. 416-432.

Meichenbaum, D. H. & Cameron, E. Training schizophrenics to talk to themselves: A means of developing attentional controls. Behavior Therapy, 1973, 4, 515-534.

Meichenbaum, D. H. & Goodman, J. Training impulsive children to talk to themselves: A means of developing self-control. Journal of Abnormal Psychology, 1971, 77, 115-126.

Truax, C. B. & Mitchell, K. M. Research on certain therapist interpersonal skills in relation to process and outcome. In A. E. Bergin and S. L. Garfield (Eds.), Handbook of Psychotherapy and Behavior Change. New York: Wiley, 1971, Pp. 299-344.

Winer, B. J. Statistical principles in experimental design. New York: McGraw-Hill, 1971.