THE EFFECTS OF COVERT AND OVERT MODELLING ON THE COMMUNICATION OF EMPATHY

by

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B.A., University of Victoria, 1981

A THESIS SUBMITTED IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in the Faculty

of

Education

ACCEPTED

FACULTY OF GRADUATE STUDIES

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December, 1984

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Abstract

The primary purpose of the study was to compare the efficacy of covert and overt modelling in the acquisition of an interpersonal communication skill. The target skill in training was the communication of empathy.

Other studies employing covert modelling in verbal skills training confound covert and overt modelling variables. It is difficult, therefore, to ascertain whether it is the covert or overt modelling which is producing the treatment effects. A secondary purpose of the present study was to employ an experimental design that would control for the overt modelling inherent in the covert modelling treatment.

Sixty-four female undergraduate psychology students at the University of Victoria volunteered for the project and were randomly assigned to one of four experimental conditions: (a) covert modelling (CM), in which subjects listened to modelling of empathy and imagined themselves as the model; (b) treatment control (TC), in which subjects listened to modelling of empathy and engaged in a distraction activity of counting backwards; (c) overt modelling (OM), in which subjects listened to twice as much modelling of empathy as

did the TC group; and (d) no-treatment control (C), in which subjects received no modelling of empathy.

The training was presented to each subject individually by audiotape. After training, each subject responded orally to videotaped client statements and wrote responses to written client statements on Carkhuff's Communication Index (CCI). Subjects' written and oral responses were assessed for empathic content using Carkhuff's Empathic Understanding Scale.

Data were analysed using a one-way analysis of variance and the Scheffe multiple comparison of means. The covert modelling, overt modelling, and treatment control groups scored significantly higher than the no-treatment control group in written and oral empathy. There were no significant differences between the covert modelling, overt modelling, and treatment control groups.

The data indicate that overt modelling is an effective training method. All groups which were exposed to modelling outperformed the no-treatment control group.

Covert modelling treatment did not enhance the overt modelling effects. One interpretation of the results is that covert modelling is ineffective in empathy training with

female university students. A second explanation for the results is that the treatment control subjects may have received sufficient overt modelling to allow them to learn empathic responding to a level which the covert and overt modelling groups could not surpass in a brief analogue situation. The implications of the findings and the limitations of the study are discussed.

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ACKNOWLEDGMENTS

I wish to express my deepest appreciation to Dr. Max R. Uhlemann, my committee chairperson, for his constant support and guidance throughout the study. Not only did he help with this research, but he assisted me through all facets of my graduate program. His understanding and willingness to extend himself beyond the usual responsibilities of supervisor will be remembered always.

Special thanks are also extended to members of my committee, Dr. Brian Harvey and Dr. Norma Mickelson, for their suggestions and enthusiasm.

I also want to thank Rod Payne for working as research assistant in the study, and Alana Samson, Angela Burns, Theresa Farrell, and Robert Creese for their participation on audio and video tapes. A special thank you is due to Anita Buckley, Beverly Kelly, Timothy Dudley, and Adrian Zahradka for spending hours rating participants' responses, and to Maggy Soos for typing the manuscript.

The thesis would not have been possible were it not for the many students who volunteered their time as participants in the study. To them I am especially grateful.

Finally, I am sincerely thankful to Stuart Daniel, who has encouraged me throughout this work. As well as pro-

viding moral support, Stuart helped with proofreading, editing, and typing of earlier versions of the manuscript.

To Stuart,

for loving me

CHAPTER I

Introduction

The literature in recent years reveals a continuing interest in the methods used to teach interpersonal communication skills to counsellors-in-training, lay-counsellors, and individuals in the general population. The present study investigated the efficacy of two modelling procedures on the acquisition of a communication skill.

Modelling phenomena perhaps can best be explained by the principles of social learning theory (Bandura, 1969; Bandura & Walters, 1963). According to Bandura (1970), modelling involves four interrelated subprocesses. These are: (a) attentional processes, (b) retention processes, (c) motor reproduction processes, and (d) motivational and reinforcement processes. A brief description of each process follows.

First, the observer must attend to and accurately perceive the important features of the model's behavior. Merely exposing a person to modelling behavior will not guarantee that the individual will acquire the necessary information. For learning to occur, the observer must attend closely to the modelled behavior, select the most important elements of the behavior on which to focus, and accurately perceive the cues to which attention has been directed.

A second process in modelling phenomena involves retaining the information acquired through modelling by coding the information in symbolic form. It is assumed that during exposure to the modelled behavior, the observer acquires words and images of the behavior which are then coded, organized, or rehearsed to enhance their retention in memory. Bandura (1970) suggests that rehearsal may be either overt or covert at this phase of observational learning.

A third process of modelling phenomena involves the performance of the modelled behavior by the observer. The symbolic representations stored in memory guide the overt behavior of the observer. In some instances, however, the observer may acquire and retain the modelled information but be unable to reproduce the behavior because of the complexity of the skill or the observer's physical limitations.

Motivation and reinforcement comprise the fourth process of modelling phenomena. The observer may have the ability to reproduce the model's behaviors but choose not to do so if unfavourable consequences are likely to follow. Social learning theory suggests that behavior is maintained not only by receiving reinforcement from external sources, but also by self-reinforcement and

vicarious reinforcement (Bandura, 1970). Favourable consequences to the model, therefore, may selectivley focus the observer to the modelled behavior and increase the probability that the observer will perform the target skill.

Many interpersonal communication skills training programs include overt modelling procedures as a means of demonstrating communication skills. Overt modelling refers to the procedure in which an observer is exposed to someone else performing the behavior which the observer wishes to develop. In communication skills training, overt modelling typically involves observation of live, videotaped, or audiotaped models. The efficacy of overt modelling in the acquisition of communication skills has received considerable attention in the literature (e.g. Perry, 1975; Robinson, Froehle, & Kurpius, 1979a, 1979b; Ronnestad, 1977; Stone & Vance, 1976). Due to financial and practical restraints, however, alternatives to live and videotaped models are being sought (e.g. Robinson, Kurpius, & Froehle, 1981; Scott, Cormier & Cormier, 1980; Uhlemann, Hearn, & Evans, 1980).

Bandura (1970) noted that modelling refers to the cognitive and representational processes which guide behavior rather than the mode through which modelling

information is presented. This explanation of modelling suggests that overt models are not an essential ingredient of modelling phenomena. It has been proposed (Cautela, 1971) that modelling effects can be obtained by having the individual _imagine_ the modelled situation. This procedure is referred to in the literature as covert modelling.

Covert modelling has been used with people who wish to increase, decrease, or acquire particular behaviors. For example, covert modelling has been applied as a method of increasing assertive behaviors (e.g. Kazdin, 1974d, 1975; Rosenthal & Reese, 1976), decreasing fear avoidance behaviors (e.g. Cautela, Flannery, & Hanley, 1974; Kazdin, 1973; 1974a), and acquiring a counsellor strategy (Scott, Cormier, & Cormier, 1980). Results from these studies have indicated that covert modelling is an effective modelling procedure.

Imagining a model perform the target skill is the major component of the covert modelling treatment. Participants engaging in covert modelling imagine a number of specific treatment scenes which are relayed to them via live or tape recorded instructions. Each treatment scene contains two major ingredients. The first is a description of the situation in which the modelled behav-

ior is about to occur. The second is a modelled demonstration of the behavior. Adding a third ingredient, reinforcement of the model for the behavior, has been found to enhance the efficacy of covert modelling (Kazdin, 1974d, 1975, 1976). Treatment scenes are imagined twice. The duration of each scene has been reported to be from 15 seconds (e.g. Kazdin, 1973, 1974a, 1974b, 1974d; Scott et al., 1980) to 40 seconds (e.g. Kazdin, 1979b, 1982).

Unfortunately, it appears that research examining the efficacy of covert modelling for assertive skills or counsellor training confound covert modelling with overt modelling variables. Treatment scenes are presented in such a way that participants hear a modelled example of the skill. Therefore, it is difficult to ascertain whether it is covert or overt modelling which is producing the treatment effects.

Covert modelling may be a viable means of demonstrating interpersonal communication skills without the presence of live or videotaped models. The major purpose of the present study was to compare the efficacy of covert and overt modelling in the acquisition of empathic communication. A secondary purpose was to apply an experimental design which would separate overt and covert variables.

CHAPTER II

Review of the Literature

Following is a review of the literature investigating the efficacy of overt and covert modelling. Overt modelling has been used extensively in interpersonal communication skills training programs. Therefore, the review of the overt modelling literature will focus on its application in communication skills acquisition, and more specifically, to empathy training. The majority of the research in covert modelling has applied the procedure to client problems, such as lack of assertive skills and fear of rats or snakes. The review of the covert modelling literature, therefore, will focus on application of the procedure to problems other than communication skills acquisition. Research which compares the efficacy of overt and covert modelling will also be reviewed, as will research which combines overt modelling and covert procedures in empathy training.

Overt Modelling

Applications

The efficacy of overt modelling on communication skill acquisition has received much investigation. Overt

modelling has been found to enhance students' knowledge and performance of a wide variety of skills, such as reflection of feeling (e.g. Perkins & Atkinson, 1973; Robinson, Kurpius, & Froehle, 1981), open-ended questions (Alssid & Hutchinson, 1977; Kurpius, Froehle, & Robinson, 1980), counsellor tacting response lead (Eisenberg & Delaney, 1976; Robinson, Froehle, & Kurpius, 1979), and self-disclosure (Stone & Gotlib, 1975).

There are numerous studies that support overt modelling as an effective method of teaching empathic communication. Payne, Winter, and Bell (1972) examined the effects of supervisory styles and modelling versus no modelling on acquisition of empathic responding. Undergraduate psychology students were randomly assigned to one of six groups: (a) techniques (didactic) supervision, (b) counselling (experiential) supervision, (c) placebo-modelling, (d) placebo-no modelling, (e) control - modelling, and (f) control - no modelling. The placebo treatment was a style of supervision in which the supervisor discussed the client's psychodynamics. The modelling treatment consisted of audiotaped interviews between a counsellor and client. Subjects to receive supervision were assigned to their respective groups after listening to the modelling tape. Subjects' oral

responses to audiotaped client statements were assessed for empathic content. There were three assessment trials, one of which occurred after modelling but before supervision, and the other two which occurred at the various stages of the supervision process. Results indicated that only those trainees in the techniques-oriented and control - modelling groups showed significant improvement in empathy, with no significant differences occurring between the two groups. There was a significant effect for modelling; groups which received modelling outperformed no-modelling groups at the pre-supervision assessment.

Gulanick and Schmeck (1977) compared all possible combinations of modelling, praise, and criticism as a means of teaching empathic responding to female undergraduate psychology students. Subjects responded to videotaped client statements at pre-, mid-, and post-training. They received the modelling, praise, or criticism treatments between responses. Subjects' responses were audiotaped and assessed for empathy. Results indicated that modelling was the only effective training technique.

Ronnestad (1977) compared the effects of modelling, feedback, and experiential intervention in teaching grad-

uate students to communicate empathy. Subjects responded to videotaped client statements on three occasions. Between response sessions, subjects received one of three supervisory treatments or a no-supervisory control. For the modelling condition, the supervision responded with empathy to the client statements. In the feedback condition, the supervisor rated subjects' responses using Carkhuff's (1969a) 5-point empathy scale. The experiential condition consisted of the supervisor exploring the feelings of the subjects as well as those of the client. Subjects' responses to the client statements were audiotaped and rated for empathy. Significant improvement in empathy ratings were found for feedback and modelling conditions. Results indicated that modelling was the most effective method of supervision.

Perry (1975) investigated the single and combined effects of modelling and instructions on counsellor empathy. A factorial design was used to incorporate two instruction conditions (instructions, no instructions), and three modelling conditions (high empathy model, low empathy model, or no model). The subjects were clergymen, most of whom had some counselling experience. Subjects were assessed on their written responses to an audiotaped client and their oral responses to a client in

a live interview. Results indicated that modelling was the only effective training technique. However, a modelling effect was found only in the written responses. An additional finding was that subjects who were exposed to a high empathy model scored significantly higher on written measures that did subjects who were exposed to a low empathy model.

Stone and Vance (1976) investigated the single and combined effects of modelling, instructions, and rehearsal in training college students to respond with empathy. Training gains were assessed using two measures: (a) subjects' written responses to written client statements at posttest, and (b) subjects' oral responses to a critical-incident interview at a two week follow-up. Results indicated that subjects in every training group, including those in the modelling alone condition, improved significantly more on written empathy than did subjects in the no-treatment control group. On interview measures, modelling was effective when combined with instructions and rehearsal but not when used alone.

Stone and Stein (1978) studied the single and combined effects of modelling and instructions on empathic communication and frequency of reflective responses. In addition, the length of exposure time to modelling and

instructions was varied to determine whether short (5 minutes) or long (20 minutes) conditions would influence treatment outcome. Empathy measures were obtained by having subjects respond in writing with empathy to written client statements before treatment and one week after treatment. Frequency of reflection responses were scored through written and video measures at posttest, and interview measures one week after treatment. Results indicated that the long modelling condition influenced empathy ratings, whereas the short modelling did not. Long or short modelling used in conjunction with instructions enhanced empathy ratings, with long instructions plus long modelling yielding the highest empathy scores. Long modelling also influenced reflective responses in the video assessment. In the interview assessment, however, only a combination of long modelling and long instructions increased reflective responses.

Stone and Stein (1978) conclude that modelling and instructions, alone and in combination, can be effective training methods. A longer exposure time to modelling and instructions enhances training gains, especially in interview assessment. The authors suggest that repeated modelling trials may provide more information, reduce anxieties, and enhance interest and incentive.

Cyphers (1973) compared the efficacy of video models and written models in teaching student teachers to communicate empathy. Subjects' oral responses to audiotaped client statements were assessed for empathic content. The video model and written model groups scored significantly higher in empathic communication than did the no-treatment control group, with the video model group performing the best.

Josephson (1979) compared the efficacy of modelling with interpersonal recall (IPR) on empathic communication of paraprofessional trainees. Subjects were assigned to one of four groups: (a) modelling, (b) IPR, (c) IPR and modelling, and (d) no-treatment control. At posttest, subjects responded in writing to video stimulus tapes. Modelling used alone was the only group to yield significant treatment effects.

There are some studies which have failed to demonstrate significant effects of modelling in teaching empathic responding. These studies may be categorized in one of two groups:

(a) studies in which modelling was ineffective when used alone, and

(b) studies in which modelling did not produce an additive effect to other training procedures.

Two studies report no significant effects of modelling on empathic communication when modelling was used alone. Payne, Weiss, and Kapp (1972) studied the effects of audio modelling or no modelling, and of experiential, didactic, or no supervision in empathy training of undergraduate university students. Subjects responded orally to audiotaped segments of an interview with a client. Although modelling was found to be effective when used in conjunction with didactive supervision, it was not effective when used alone or in conjunction with experiential supervision.

Uhlemann, Lea, and Stone (1976) examined the single and combined effects of modelling and instructions. The subjects were undergraduate university students who were assessed as having low interpersonal communication skills. At posttest, subjects wrote responses to written client statements and responded orally to a role-play client in a live interview. Their responses were assessed for empathic content. Modelling combined with instructions was effective in increasing subjects' empathy levels on written and interview measures. Instructions or modelling used alone, however, did not significantly affect the level of communication on any measure.

The results reported by Uhlemann et al. (1976) are consistent with some research findings and inconsistent with others. That subjects in the modelling alone condition did not perform well in an interview is consistent with results from the Stone and Vance (1976) and Perry (1975) studies. However, the lack of improvement of written empathy scores in the modelling alone condition is contrary to results of other studies (e.g. Josephson, 1979; Perry, 1975; Stone & Stein, 1978; Stone & Vance, 1976) which demonstrate that modelling is effective for teaching individuals to write empathic responses. Uhlemann et al. suggest that the lack of a modelling effect may be due to the combination of two factors: (a) a brief exposure time of 11 minutes to modelling, and (b) a sample which consisted of individuals who were assessed as low level communicators. The authors conclude that trainees low in interpersonal communication skills may need a more intensive and structured learning experience than the one provided in the study.

A review of the literature yielded two studies which demonstrated that modelling did not have an additive effect in empathy training when combined with written instructional materials. Albert (1975) studied the effects of videotaped modelling, sex of model, and writ-

ten materials in teaching empathy and effective attending responses to undergraduate university students. Subjects were assigned to one of four groups: (a) female model and written materials, (b) male model and written materials, (c) written materials only, and (d) no-treatment control. Responses to audiotaped client statements were assessed for empathy content. All treatment groups scored significantly higher on empathy than did the control group. There were no significant differences at posttest between treatment groups. Therefore, the model did not enhance the effect of the written materials. The sex of the model did not influence the effects of treatment. There were significant differences between male and female subjects on level of empathy. In the treatment groups, female subjects scored significantly higher on empathy than did male subjects. In the control group, male subjects scored significantly higher than did female subjects. Uhlemann, Stone, Evans, and Hearn (1982) examined the effects on empathy training of including an *in vivo* model with written programmed training manuals. Paraprofessional trainees were assigned to one of three groups; (a) programmed manuals with a model, (b) programmed manuals without a model, and (c) no-treatment control group. The programmed learning materials were

developed by Hearn (1976/1978). First, students read instructions of how to perform the skill. Then, students were given a client statement to read and instructed to choose the best response among given alternatives. The text explained why each answer was correct or incorrect. Students who chose the correct answer were given a new client statement and instructed to continue. Students who chose incorrectly were directed to the original question and instructed to choose again. Thus, written modelling, rehearsal, and feedback were all components of the training manual.

At posttest and follow-up, subjects wrote responses to written client statements and responded orally to a roleplay client in a live interview. Both groups receiving programmed instruction scored significantly higher on empathic communication than did the control group. There were no significant differences between the model and no-model group. The authors of the study suggest that a reason for the lack of additive effects of *in vivo* modelling may be that modelling presents redundant information when used in conjunction with programmed materials.

Conclusions

The research suggests that modelling is an effective procedure for teaching individuals a wide variety of communication skills, including the communication of empathy. Modelling, when used alone, has significantly improved empathic communication in written and oral responses to written, audio, and videotaped client statements.

Overt modelling has not been effective in teaching individuals how to respond with empathy in a live interview. It must be noted, however, that studies investigating the efficacy of modelling used alone have occurred in analogue situations in which the exposure time to modelling has been relatively brief. Empathic responding is considered to be a complex skill to learn (Hum, Calder & Zingle, 1981). One reason for the lack of a modelling effect on interview measures may be that empathic responding, due to its complexity, warrants many hours of modelling before individuals can transfer their knowledge and performance of the skill to an interview situation. Another possibility may be that the complex skill of empathic communication demands other training methods in addition to modelling, such as rehearsal and feedback, before it can be successfully transferred to a live interview.

Live or videotaped modelling of empathy has not been found to have an additive effect on sophisticated written materials. It has been suggested (Uhlemann et al., 1982) that modelling may offer redundant information when combined with programmed manuals which include several components of affective training in written form.

Overt Modelling with Covert Procedures in Empathy Training

Applications

There are several studies which examine the effectiveness of overt modelling in empathy training and include covert procedures in the training package.

Dalton, Sunblad, and Hylbert (1973) investigated the efficacy of a modelled-learning experience in the communication of empathy. One hundred and eleven undergraduate students were randomly assigned to one of three treatment groups. One group received a modelled-learning experience consisting of an advanced organizer, a modelled-counselling interview, and covert practice. For the covert practice component, subjects were instructed to "think" of an empathic response to audiotaped client statements, following which they heard the model's empathic response. A second group was a treatment con-

trol which involved reading about empathy. A third group was a control which did not receive modelling or written materials. Subjects' written responses to written client statements were assessed for empathy content at posttest and at a one month follow-up. Results indicated that the modelled-learning experience was effective in teaching students how to communicate empathy and that changes in level of empathy were maintained over time.

In another study, Dalton and Sunblad (1976) compared the efficacy of a modelled-learning experience with systematic training in teaching university students empathic communication. The modelled-learning experience was similar to that used in the Dalton et al. (1973) study, consisting of an advanced organizer, modelled-counselling interview, and covert practice. Subjects who received the modelled-learning experience were exposed to 90 minutes of training. Subjects who received the systematic training were exposed to 10 hours of training distributed over 5 days. Subjects' written responses to written client statements were assessed for empathy content at posttest. Results indicated that the modelled-learning experience, although brief, was as effective as the more extensive systematic training in teaching empathic responding.

Layton (1978) assessed the effectiveness of overt modelling, labelling, and covert rehearsal in empathy training. Undergraduate nursing students were assigned to one of five groups: (a) modelling, (b) modelling - labelling, (c) modelling - rehearsal, (d) modelling - labelling - rehearsal, and (e) no - treatment control. Subjects in the modelling - labelling condition watched the same interviews and received a commentary that explained which behaviors were high or low in empathy. Subjects in the modelling - labelling - rehearsal group received the modelling and labelling treatments and in addition were told to think of an empathic response to each client statement. Ten second pauses were allowed after each client statement to which the subject covertly made the response. Subjects in all treatment groups were told to overtly practice empathic responding for homework. Subjects' oral responses to a client in an interview were assessed at posttraining and at a three week follow-up.

Results indicated that there were no significant differences among experimental groups. When subjects were categorized into juniors and seniors, however, there were treatment effects for the junior nursing students at follow-up assessment. Junior nursing students in the

modelling - rehearsal and modelling - labelling - rehearsal conditions showed significantly higher empathy ratings than other groups. These differences occurred at follow-up assessment only, after subjects had practiced empathic responding for a period of three weeks. Layton (1978) concludes that covert rehearsal was effective only when used in conjunction with overt practice.

It is important to note that the Dalton et al. (1973), Dalton and Sunblad (1976), and Layton (1978) studies used covert procedures but did so without employing imagery. Subjects were instructed to "think" of empathic responses but were not told to visually imagine themselves in their mind's eye performing the target skill. Dalton et al. (1973) and Dalton and Sunblad (1976) have defined the covert procedure employed in these studies as "covert practice" rather than covert modelling. Covert modelling, as it is described in the literature, uses imagery as a major component of the treatment.

The use of imagery to teach empathic communication was applied in a recent study by Sklare and Cunningham (1983). It was hypothesized that an edited self-as-a-model training package would be more effective in teaching reflective responding than would be an expert model

treatment or unedited self-as-a-model treatment. Subjects were randomly assigned to one of three groups: (a) edited self-model, in which subjects viewed a videotape of their most effective reflective responses edited from an interview they had had with a roleplay client; (b) expert model group, in which subjects observed an edited videotape of an expert counselling modelling reflective responses; and (c) unedited self-model groups in which subjects viewed an unedited videotape of themselves in a counselling session with a roleplay client. After viewing the videotape, subjects in each condition spent 10 minutes imagining either the expert model or themselves making reflective responses. Sklare and Cunningham (1983) note that the subjects were not guided through the imagery but were left on their own to engage in the imagery portion of the treatment package. Results of the study indicated that there were no significant differences between groups on written or interview measures. Observing oneself on an edited videotape performing a communication skill was not more effective than observing an expert model or observing oneself on an unedited videotape.

The Sklare and Cunningham (1983), Dalton and Sunblad (1976), and Dalton et al. (1973) studies were primarily

concerned with examining the efficacy of a modelling treatment package. The studies were not concerned with isolating the covert procedure variable and testing for its effectiveness. Although covert procedures were employed, they were incorporated into larger training packages which included a variety of other training variables. A particular training package, and not the covert procedure per se, was examined for its effectiveness as a teaching method.

Conclusions

Several studies have designed effective empathy training packages that include overt modelling and covert procedures. In most of these studies, covert procedures have entailed "thinking" about an empathic response but not visualizing oneself as the model. Two such studies found the training packages to be effective in teaching empathic responding but did not separate the covert procedure to test for its effectiveness. One study found covert practice to be effective when used in conjunction with overt modelling and overt rehearsal.

Visualization as an empathy training technique was employed in a recent study by Sklare and Cunningham (1983). In that study the covert procedure was incorpo-

rated into a larger training package and not examined for its efficacy.

Covert Modelling

Applications

Covert modelling has been used to help individuals decrease, increase, or develop a variety of specific behaviors. There is evidence that the treatment is effective in reducing avoidance responses to snakes (Kazdin, 1973, 1974a, 1974b, 1974c) and rats (Cautela, Flannery, & Hanley, 1974). Other studies have demonstrated its effectiveness in reducing test anxiety (Gallagher & Arkowitz, 1978; Harris & Johnson, 1980), decreasing alcoholic and obsessive-compulsive behaviors (Hay, Hay, & Nelson, 1977), and decreasing smoking behavior (Hay, Hay, & Nelson, 1977).

There are numerous studies which report that covert modelling is an effective method of teaching individuals assertive behavior skills (e.g. Hersen, Kazdin, Bellack, & Turner, 1979; Kazdin, 1974d, 1975, 1976a, 1976c, 1979a, 1979b, 1980, 1982; Nietzel, Martarano, & Melnick, 1977; Rosenthal & Reese, 1976). Furthermore, individuals who increase their assertive behaviors with covert modelling

treatment are reported to maintain their assertive skills over follow-up periods of three to eight months (e.g. Kazdin, 1974d, 1975, 1976a, 1979a, 1979b, 1980, 1982; Nietzel et al., 1977).

Unfortunately, however, it appears that studies investigating the efficacy of covert modelling in the acquisition of assertive skills confound the covert modelling variable with overt modelling. In an article describing the details of the covert modelling procedure, Kazdin (1976b, p. 479) presents five of the treatment scenes he employs in his research; two examples of treatment scenes are:

1. "Picture yourself at a concert with a friend. A few people in the row behind you are making a lot of noise and disturbing everyone. It seems they have a comment to make every few minutes which everyone can hear. A person sitting next to you (the model) turns around and says, 'Will you please be quiet.'
2. Imagine the person (model) is staying at a hotel. After one night there, he(she) notices that the bedsprings must be broken. The bed sags miserably and was very uncomfortable during the night. In the morning, the person goes to the clerk at the

> desk and says, 'The bed in my room is quite uncomfortable. I believe it is broken. I wish you would replace the bed or change my room.'"

The therapist describes each scene to the client while the client is seated with eyes closed. The client imagines a given scene and holds the image for 15 seconds until the therapist says "stop." After five seconds, the scene is presented again (Kazdin, 1976b).

It is evident from the examples given of treatment scenes that the therapist is overtly modelling the assertive response. In the first example, overt modelling of assertiveness occurs when the therapist says, "Will you people please be quiet." In the second example, overt modelling occurs when the therapist states assertively, "The bed in my room is quite uncomfortable. I believe it is broken. I wish you would replace the bed or change my room." Furthermore, it appears that other studies which have reported examples of treatment scenes also employ overt modelling as part of the covert treatment (e.g. Kazdin, 1974d, 1975, 1976a; Nietzel et al., 1977).

The confounding of overt with covert modelling casts suspicion on the covert modelling outcomes reported in the assertion training literature. Assertion skill gains from covert modelling treatment have been assessed

through self-report and behavioral roleplaying tests. In most studies (e.g. Kazdin, 1974d, 1976a, 1976c, 1979a, 1979b, 1980, 1982; Nietzel et al., 1977), dependent measures in roleplaying tests have included ratings of some or all of the following: level of general assertiveness, response latency (the time elapsed from completion of scene description to initiation of subject's response), duration of subject's response, number of pauses in speech, number of interjections ("and-um," "uh," "you know"), whether the subject asked a question during the assertive resonse, and whether the subject made any threat or contingency statements (e.g. "If you do not do this, I will..."). These measures which assess some characteristic of a subject's verbal response could have been influenced by the overt modelling which occurred when the treatment scenes were presented.

It is important to note that, although confounding may cause us to question the efficacy of covert modelling in assertion training, confounding overt and covert modelling would not have occurred in those studies concerned with increasing or decreasing nonverbal behaviors, such as fear avoidance behaviors (e.g. Cautela et al., 1974; Kazdin, 1973, 1974a, 1974b, 1974c), test anxiety (Gallagher & Arkowitz, 1978; Harris & Johnson, 1980), obses-

sive-compulsive behaviors (Hay et al., 1977), and smoking behavior (Nesse & Nelson, 1977). In these studies, the treatment scenes which the subjects imagined focused on the nonverbal behaviors of the model. Consequently, overt modelling would not have occurred as the narrator presented a description of the scene. The efficacy of covert modelling in increasing and decreasing certain nonverbal behaviors, therefore, has been clearly demonstrated.

Scott, Cormier, and Cormier (1980), in reporting the results obtained by Scott's (1978/1979) doctoral dissertation, applied the covert modelling paradigm to counsellor skill training. The efficacy of covert modelling was compared to that of written materials in the acquisition of a strategy for developing goals in counselling. Thirty-six university students were randomly assigned to one of four treatment conditions; (a) covert self-model, in which subjects imagined themselves as the model; (b) covert other model, in which subjects imagined another person as the model; (c) written materials, in which subjects were presented with written instructional materials that included examples of the skill; and (d) delayed-treatment control, in which subjects received no treatment until after the research was completed.

Subjects in the covert modelling conditions listened to an audiotape that described the strategy for developing goals in counselling and which presented examples of counsellor interview leads associated with each segment of the strategy. Depending upon which covert modelling condition subjects had been assigned, subjects were instructed to imagine another person or themselves using the same counsellor leads. Following is an example of a treatment scene employed in the covert modelling condition:

> Close your eyes and imagine
>
> Imagine yourself with the client and thinking while with the client, are the client's goals feasible. You are thinking that the client should consider the degree of control the client has in the situation and the resources available to the client for goal achievement. To help the client do this imagine yourself saying, 'How much control do you have in this situation?' Continue imagining.
>
> Pause 15 seconds
>
> Stop
>
> (Scott, 1978/1979, p. 93)

Subjects were instructed to visualize each scene for 15 seconds and to listen to the entire tape twice.

Subjects were assessed on their knowledge and performance of the developing goals strategy through written and roleplay measures. Results indicated that subjects in all treatment groups outperformed subjects in the control group on every measure. There were no significant differences between the three treatment groups.

Scott et al. (1980) claim that the study demonstrates that covert modelling is an effective training method for the strategy of developing goals in counselling. However, the same confounding occurred in the Scott et al. (1980) study as in the assertion literature (e.g. Kazdin, 1974d, 1975, 1976a; Nietzel et al., 1977). The narrator on the tape, while stating the counsellor lead, "How much control do you have in this situation?" was engaging in overt modelling. Therefore, it is not clear in the covert modelling conditions whether it was the imaging or the overt modelling which produced the treatment effects.

Conclusions

The efficacy of covert modelling in reducing fear avoidance behaviors has been demonstrated. Covert modelling has also been applied with success in the treatment of test anxiety, alcoholic behaviors, obsessive-compulsive behaviors, and smoking behaviors. Numerous studies have reported

that covert modelling is an effective method of helping individuals acquire assertion skills. However, there is confounding of covert with overt modelling in the research designs of these studies. One study reported that covert modelling was effective in teaching a counselling strategy. Again, overt modelling was inherent in the treatment. It is, therefore, unclear whether it is the imagery or the overt modelling which produces positive outcomes in verbal skills training.

Variables of the Covert Modelling Procedure Relevant to this Study

There has been considerable amount of research investigating the treatment conditions which contribute most to the efficacy of covert modelling. Following is a discussion of the variables in covert modelling which have been investigated and are relevant to the current study.

Age and sex of model

Research in live and symbolic modelling suggests that client change is enhanced by similarity between the client and the model (Bandura, 1971). Kazdin (1974b) studied the effects of similarity of age and sex between the covert

model and the client in snake avoidance behavior. One treatment group consisted of subjects who imagined a model of the same age and sex. Subjects in another treatment group imagined a model who was much older and of opposite sex. Imagining the more similar model led to greater reduction in avoidance behavior, less anxiety, less arousal, and more favourable attitudes towards snakes. Kazdin (1974b) concluded that similarity between the imagined model and the client enhanced treatment outcomes.

Self or other as model

An issue for investigators to consider is whether the imagined model should be the client or another person. Research (Kazdin, 1974b) indicating that similarity of the model and client enhances the client's performance would suggest that self-as-a-model is more effective. As Krumboltz and Thoresen (1976) noted, no one is more similar to the client than the client! (p. 484).

The research to date, however, does not clearly indicate whether the model should be the self or another person in the covert modelling procedure. Kazdin (1974c) found no significant differences on anxiety, arousal, attitude, or behavioral measures of snake avoidance in subjects who imagined themselves as opposed to those who imagined another

person as the model. Scott et al., (1980) found no significant differences in the acquisition of a counsellor goal-setting strategy between subjects who visualized themselves as models and subjects who employed others as covert models. Thase and Moss (1976) found no significant differences between covert self or other modelling on behavior avoidance and fear reactions to snakes. Watson (1976) found covert self modelling more effective than covert other modelling for improving behavioral measures of job interviewing skills in incarcerated youth offenders.

It has been suggested (Cormier & Cormier, 1979, p. 310) that the ideal identity of the model may vary with clients. Consideration should be given to how stressful imagining oneself as the model would be for the individual. For those who experience stress in imagining themselves as the model, Cormier and Cormier suggest having the client imagine someone else initially and later imagine oneself as the model.

Reinforcement of the model

The efficacy of covert modelling has been found to be enhanced by reinforcing the model for the desired behavior. Kazdin (1974d) investigated the effects of model reinforcement on subjects' acquisition of assertive behaviors. Subjects in a covert model plus reinforcement condition imag-

ined treatment scenes consisting of the context of the situation, the model's assertive response, and favourable consequences which followed the assertive response. Subjects in a covert modelling without reinforcement condition were presented with scenes which consisted of only two parts: (a) the context of the situation, and (b) the model's assertive response. No consequences followed the model's performance. Results indicated that both model and model-reinforcement groups improved significantly on self-report inventories and a role-playing test for assertiveness. Model-reinforcement subjects were significantly more assertive than were model subjects on the role-playing test but not on the generalization items of the test.

There is other research to support the inclusion of model reinforcement in covert scenes. In two studies, Kazdin (1975, 1976c) found that subjects in the model-reinforcement conditions made greater performance gains on self-report, roleplay, and generalization measures of assertiveness than did subjects in model without reinforcement conditions. It appears that scenes which reinforce the model for assertiveness generate more assertive behavior in subjects than do scenes which do not reinforce assertiveness.

Self-tailored or standardized scenes

One study tested for the effects of self-tailoring the content of covert treatment scenes. Rosenthal and Reese (1976) compared assertiveness measures of subjects who had received a standardized hierarchy of scenes with subjects who were permitted to self-tailor the scenes. In the standard hierarchy group, subjects imagined the situations exactly as the scenes were presented to them. In the self-tailored format, each scene was presented to the subject who then provided a personal experience most similar to the given situation. Results indicated no significant differences between groups. Self-tailored hierarchies, which demanded more time, were not more effective than the standard hierarchy.

Conclusions

Literature on covert modelling reveals an interest in investigating variables which may enhance the procedure. Five such variables, age and sex of the model, identity of the model, reinforcement of the model, and individualized or standardized scenes, are relevant to the present research. There is some evidence that a covert model similar in age and sex to the subject may enhance treatment outcomes. Evidence indicating whether the covert model should be the sub-

ject or another person is inconclusive. Reinforcing the model for assertive behavior seems to enhance treatment. One study has demonstrated that standardized treatment scenes were as effective as individualized treatment scenes in assertiveness training.

A Comparison of Covert and Overt Modelling Applications

Conclusions about the efficacy of covert modelling have usually been derived from comparisons with no-treatment control groups, delayed-treatment control groups, and/or control groups which visualize the situation but not the modelled response. A few studies have compared the efficacy of covert modelling with overt modelling.

Cautela, Flannery, and Hanley (1974) compared the effects of covert modelling, overt modelling, and attention placebo on fear reduction of rats. Thirty female university students volunteered as subjects. Results indicated that there were no significant differences between the covert and overt groups on three behavioral and two subjective measures. The overt group was superior on one subjective measure. Cautela et al. concluded that overall, covert modelling was as effective as overt modelling.

Kato and Fukushima (1977) examined the efficacy of covert and overt modelling in reducing avoidance behaviors to rats. Female undergraduate university students were assigned to live modelling, covert modelling, or control conditions. Results indicated that only live modelling was effective in increasing approach behaviors. The authors admit, however, to a variety of weaknesses in the research design and suggest that covert modelling is worthy of further research.

Rosenthal and Reese (1976) compared the efficacy of covert and overt modelling in the development of assertive skills in female university students. No significant differences were found between overt and covert groups. The authors note that the clients were college students and may have had superior symbolic ability to the general population. They caution the reader about generalizing the effects of covert modelling to clients who have average or below average cognitive skills.

Hersen et al. (1979) evaluated the effects of live modelling, covert modelling, and rehearsal on unassertive psychiatric patients. Live and covert modelling were equally effective in increasing assertive behaviors.

Pentz and Kazdin (1982) found covert modelling to be less effective than overt modelling in teaching adolescents

assertive behaviors. They suggest that the utility of overt and covert modelling may vary with adolescents and adults.

Research comparing the efficacy of covert with overt modelling in assertive training suffers from the same confounding as the research comparing the efficacy of covert modelling with control groups. For example, subjects in the Hersen et al. (1979) study were read an example of what an assertive statement would be. Consequently, subjects receiving covert modelling also received some overt modelling. It is, therefore, unclear whether it was the imagery or the overt modelling which produced the treatment gains in the covert modelling condition. Thus, it is also difficult to determine whether covert and overt modelling are equally effective in increasing assertive behaviors.

Conclusions

Results reported in the literature suggest that the efficacy of covert modelling may be comparable to that of overt modelling for reducing fear avoidance behaviors and increasing assertive behaviors in adults. The cautionary note made by Rosenthal and Reese (1979) that the effects of covert modelling may not generalize to clients who have underdeveloped cognitive skills was not supported by the results of the Hersen et al. (1979) study. Hersen et al.

report that covert modelling is effective with psychiatric patients, a client group which they consider to have impaired cognitive abilities (p. 369). Comparisons of overt and covert modelling in assertion training for client populations other than adults are not conclusive. Results of the Pentz and Kazdin (1982) study which report the lack of covert modelling effects for increasing assertive behaviors in adolescents indicates that more research is needed to determine the efficacy of the procedure for persons not of adult age.

Research comparing the efficacy of covert and overt modelling in the acquisition of assertive responses confound overt and covert variables. Therefore, research results which seem to indicate that covert modelling is as effective as overt modelling must be regarded with caution.

CHAPTER III

Rationale

Although there is considerable research on the effects of covert modelling in assertion training, and one study which applied covert modelling to acquisition of a counsellor strategy, a review of the literature failed to yield any published studies that tested the efficacy of covert modelling in the acquisition of an interpersonal communication skill. The purpose of the present study was to expand the discussion of covert modelling to communication skills training and to compare the efficacy of covert modelling with that of overt modelling.

Several authors have commented on the advantages of the covert modelling procedure (e.g. Cormier & Cormier, 1979; Kazdin, 1976b; Scott et al., 1980). If the covert modelling paradigm can be successfully applied in communication skills acquisition, some of the advantages for counsellor training programs would be as follows: (a) covert modelling would not require elaborate equipment (as does videotaped modelling), (b) treatment scenes could be individualized to fit the particular needs of the student, and (c) the procedure could be practiced without the presence of an instructor. Scott et al. (1980) noted that covert modelling is a relatively "low cost" training method, and recommended that

research explore the efficacy of covert modelling in counselling training.

The design of the current study controlled for the effects of overt modelling which are inherent in the covert modelling procedure when verbal skills are taught. This was accomplished by giving all training groups the same initial exposure to overt modelling, and then manipulating what occurred after the initial modelling. It was, therefore, possible to assess whether or not it was actually the visual and auditory <u>imagery</u> that the subjects engaged in which produced effects in the covert modelling condition.

The skill taught in the study was the communication of empathy. Empathy has been described as the ability to understand people from their frame of reference rather than one's own (Cormier & Cormier, 1979). Peavy (1981) describes counsellor empathy as conveying an understanding of the client's meaning. He states that "an understanding of both <u>concepts</u> (sometimes called 'content') and <u>feelings</u> (sometimes referred to as 'affect') are identified and reflected in the counsellor's response" (p. 125). Carr and Saunders (1980) define empathy as follows: "Empathy is the ability to understand another person's ideas and feelings. It is gaining an understanding (through <u>listening</u>) and demonstrating that understanding (by <u>responding</u>)" (p. 58). For pur-

poses of the current study, the operational definition for the communication of empathy is as follows: The helper conveys an understanding for the helpee's ideas and feelings by restating, in the helper's own words, the same feeling and content as was in the helpee's expressions.

The communication of empathy was chosen as the dependent variable for two reasons. First, there is evidence that therapist empathy is related to client outcome and desirable client behaviors in therapy (Barrett-Lennard, 1962; Truax, 1963). Secondly, a variety of therapies, regardless of their theoretical orientation, consider empathy to be an important therapist-client relationship variable (Fiedler, 1950; Truax & Carkhuff, 1967).

CHAPTER IV

Method

Subjects

The subjects were 64 female students enrolled in one or more undergraduate psychology courses at the University of Victoria. Subjects' names were randomly selected from the Department of Psychology's volunteer subject bank. Students were contacted by phone and asked whether they would be willing to participate in a research project designed to investigate methods of teaching interpersonal communication skills. Only those who had no former training in communication skills through university courses, high school courses, job experience, or volunteer work experience were admitted to the study. Participation was voluntary.

The study involved only female students because it was thought that subjects in the covert modelling condition would find it easier to imagine themselves as the helper if they were of the same sex as the helper on the audiotape. Some studies employing covert modelling report recruiting female subjects only (Cautela et al., 1974; Kato & Fukushima, 1977; Rosenthal & Reese, 1976). In their study investigating the effects of overt modelling on empathy acquisition, Gulanick and Schmeck (1977) restricted their sample to females. Fiske et al. (1970, p. 729) have stated

that, "Other things being equal, the more homogeneous the population, the more useful the findings," an assertion which supports the female samples used in other research and which provides a rationale for the sample used in the present study.

Development of the Modelling Tapes

The production of the modelling tapes involved several steps. First, written scripts of two hypothetical interviews between a "helper" and a "client" were developed. Each interview consisted of four major exchanges, called "scenes," between the client and helper. A scene consisted of the following components: (a) a statement from the client, (b) an empathic response from the helper (model), and (c) a brief statement of agreement by the client. The last component was included as a reinforcer to the helper's empathic response.

In the second step, an experienced rater who was naive to the purpose of the study rated the helper's empathic responses. The responses were modified until one half of the helper's response in each interview measured to a level 3 and one half measured to a level 4 on Carkhuff's (1969a) 5-point empathy scale. Level 4 responses were included because research suggests that high empathy models produce

higher empathy ratings among subjects than do lower empathy models (Perry, 1975).

The third step was to audiotape the two interviews onto a master modelling tape. A female graduate student in counselling roleplayed the helper and a male graduate student roleplayed the client in the first interview. The second interview involved a female graduate student as the client and the same helper as was in the first interview. The roleplayers were instructed to sound as natural as possible in their roles. Each scene of an interview lasted 20 seconds.

The fourth step was to ensure that the helper's responses as relayed on the audiotape received the same empathy ratings as they had in written form. The same experienced rater who had rated the written responses rated the responses on audiotape. Each response received the same rating on Carkhuff's (1969a) 5-point empathy scale as it had in written form.

Finally, the interviews from the master tape were transferred onto the tapes used in the three modelling conditions of the study. Therefore, the modelling of empathy in each condition was identical. The modelling interviews are presented in Appendices A and B.

Instruments

Carkhuff Communication Index (CCI). The CCI (Carkhuff, 1969a) is an instrument designed to provide a standardized means of assessing level of communication in helpers. It consists of 16 helpee stimulus expressions to which subjects formulate their responses verbally or in writing. In the present study, subjects were required to write empathic responses to the written helpee expressions at posttest.

The stimulus expressions span five helpee problem areas and three helpee affect areas. The problem areas include the following: (a) social-interpersonal, (b) educational-vocational, (c) child-rearing, (d) sexual-marital, and (e) confrontation of helper. In addition, subjects are requested to respond to a silence. The affect areas include the following: depression-distress, (b) anger-hostility, and (c) elation-excitement.

Eight of the 16 client stimulus expressions were selected for the current research. They were chosen by first grouping the expressions according to problem area, and then randomly selecting an expression from each group.

Reliability of the CCI is indicated by the high rate-rerate and interrater reliability coefficients reported in the literature. Carkhuff (1969b), Heffele, Collingwood, and Drasgow (1970), and Uhlemann, Stone, Evans, and Hearn (1982)

reported interrater reliabilities of +.89, +.86, and +.90 respectively. Carkhuff (1969b), and Heffele et al. (1970) reported rate-rerate reliabilities of over +.90.

There is evidence that ratings of written responses to the CCI using Carkhuff's (1969a) 5-point empathy scale provide a valid index of functioning in the helping role. Carkhuff (1969b) found that the pretraining ratings of level of communication measured by the CCI correlated highly (r = +.89) with ratings from a pretraining interview with a client. Carkhuff and Bierman (1970) reported a correlation of +.73 between pre- and posttraining ratings of the CCI. They also reported a +.71 correlation between pretraining CCI ratings and posttraining ratings of level of functioning in a helper role. Similarly, Carkhuff (1969b) found that pretraining CCI ratings correlated strongly (r = +.85) with posttraining ratings of level of functioning in a helping role.

Additional support for the CCI as a valid index of level of functioning in a helper role is provided by other studies (Bierman, Carkhuff, & Santilli, 1972; Carkhuff & Banks, 1970; Carkhuff, Friel, & Kratochvil, 1970; Carkhuff & Griffin, 1970). These studies report that trainees scoring high on the CCI at pretraining also scored high in interview sessions at posttraining, and made the greatest gains in

level of functioning following training from a high level trainer. Trainees scoring low on the CCI at pretraining functioned at low levels in interview sessions at posttraining and made minimal gains from training.

Video stimulus tape. A video stimulus tape was developed to which subjects responded orally at posttest. The video tape consisted of six independent client statements (Appendix C). Instructions to subjects regarding the video stimulus tape are presented in Appendix D.

The development of the video stimulus tape involved three steps. First, the client statements were developed, giving consideration to the types of problems students at a university might present to a helper. Second, to ensure that a feeling could be clearly identified in each statement, two graduate students in counselling were asked to respond on audiotape to the client statements. The graduate students were able to identify the key feelings and respond with accurate empathy to each statement. In the third step, one male and one female student from the drama department were hired to roleplay as clients and present each statement on videotape. They were instructed to pretend that they really had these client problems and to put as much feeling into their roleplay as seemed appropriate. The actor and actress alternated as the client. Each client statement was

practiced until consensus was reached that the roleplaying seemed natural, realistic, and accurately portrayed the intended feeling.

At posttest, subjects were instructed to respond with empathy to each client statement. Thirty seconds were allowed for the subject's response. During this time, the client on the video was silent but nonverbally active - looking at the subject, blinking, and engaging in nonverbal behaviors which characterized the client's mood. The client was presented this way in order to help generate for each subject more of a sense of responding to a "real" client. After 30 seconds in which the subject made her response, another client with a different concern was presented. Subjects' responses to the six client statements were audiotaped and assessed for empathic content.

Empathic Understanding Scale. Scale 1 of the Carkhuff Scales for Assessment of Interpersonal Functioning (Carkhuff, 1969a) was used to evaluate for empathy subjects' written responses to the CCI and oral responses to the video stimulus tape. The empathic understanding scale has 5 levels of which 1 represents the lowest level of empathy and 5 represents the highest level. Although Carkhuff defines only the five whole intervals, it is common practice to subdivide the scale into units of .5. The present study included .5 units on the scale.

The high reliability coefficients reported in the literature indicate the reliability of Carkhuff's (1969a) 5-point empathy scale. Berenson, Carkhuff, and Myrus (1966), and Uhlemann, Lea, and Stone (1976) reported rate-rerate reliabilities of +.98 and +.83 respectively. Carkhuff, Friel, and Kratochvil (1970) reported a rate-rerate reliability of over +.80. Interrater reliabilities of over +.90 have been reported (e.g. Perry, 1975; Pierce & Drasgow, 1969; Pierce & Schauble, 1971; Uhlemann, Stone, Evans, & Hearn, 1982).

Support for the validity of the Empathic Understanding Scale is provided by research which demonstrates that there is a positive relationship between empathic understanding and favourable therapeutic outcome (e.g. Barrett-Lennard, 1962; Pierce & Drasgow, 1969; Truax & Carkhuff, 1967). Other research has demonstrated that the counsellor's level of functioning is largely responsible for whether the therapy has a facilitative or retarding effect on the client (Carkhuff & Berenson, 1967).

Self-Report Imagery Survey (SRIS). The SRIS (Appendix E) was developed for the present study as an informal means of gathering information on what subjects in the covert modelling condition experienced during treatment. The SRIS was given to covert modelling subjects to complete immediately

after posttest. The survey consists of five multiple-choice items which asks subjects to assess how clear their visual and auditory imagery was, how nervous they felt during treatment, and to what extent they conformed to the instructions regarding imagery.

Raters and Rater Training

It has been suggested that raters of communication skills should themselves be high level communicators (Gormally & Hill, 1974; Stone & Vance, 1976). Therefore, raters in this study were assessed for their level of empathic communication. Before rater training, each rater responded to a set of audiotaped client statements. Their responses were evaluated according to Carkhuff's (1969a) 5-point empathy scale by an experienced rater naive to the purpose of the study. The two CCI raters each achieved scores of 3.2. Raters of the responses to the video stimulus tape achieved scores of 3.3 and 3.1.

Carkhuff Communication Index. The raters of the CCI were two male graduate students completing a program leading to a Master of Arts degree in counselling. They each received eight hours of training in the evaluation of written responses to the client expressions on the CCI. They received payment for the hours they contributed to the research.

Training included reading and discussing materials on the concept and application of (a) the CCI, and (b) Carkhuff's (1969a) 5-point empathy scale. Examples of written responses to client expressions on the CCI were presented and rated for practice. A Pearson product-moment correlation (Winer, 1962) of +.91 for interrater reliability was obtained at the completion of training.

The raters then proceeded to rate CCI responses of subjects who participated in the present research. Completed CCI responses were presented to the raters in random order. The raters worked independently and used Carkhuff's (1969a) 5-point empathy scale to assess each written response for empathy. The two judge's ratings were averaged to provide a single score for each subject. A Pearson product-moment correlation of +.83 for interrater reliability was obtained for subjects' written responses to the CCI.

Responses to video stimulus tape. The raters were one female graduate student completing her second year of a Master of Arts program in counselling and one female counsellor with a Master of Education in counselling. Both raters had previous work experience rating responses with Carkhuff's (1969a) 5-point empathy scale. One rater had 35 hours of previous rating experience and the other rater had 50 hours. The raters received an additional two hours of training for

the present study. They were paid monetarily for the hours they contributed to the research.

Training for the current study included reading and discussing materials on the concept and application of Carkhuff's (1969a) 5-point empathy scale. Examples of oral responses to audiotaped client expressions were presented and rated for practice. A Pearson product-moment correlation (Winer, 1962) of +.94 for interrater reliability was obtained at the completion of training.

The raters then proceeded to rate oral responses of subjects who participated in the present research. Subjects' audiotaped responses to the video stimulus tape were presented to the raters in random order. The raters worked independently and used Carkhuff's (1969a) 5-point empathy scale to assess each oral response for empathy. The two judges' ratings were averaged to provide a single score for each subject. A Pearson product-moment correlation of +.93 for interrater reliability was obtained for subjects' oral responses to the video stimulus tape.

<u>Procedure</u>

Sixty-four subjects were randomly assigned to one of four experimental conditions; (a) covert modelling (CM), in which subjects listened to modelling of empathy and imagined

themselves as the model; (b) treatment control (TC), in which subjects listened to modelling of empathy and engaged in a distraction activity of counting backwards; (c) overt modelling (OM), in which subjects listened to twice as much modelling of empathy as did the TC group; and (d) no-treatment control (C), in which subjects received no modelling of empathy.

Treatments were applied to subjects individually by one of two experimenters. To reduce the possibility of experimenter bias, each experimenter saw the same number of subjects in one group as in every other group.

Each subject was brought into the research laboratory by the experimenter and seated at a table on which were two cassette tape recorders and one set of earphones. Subjects listened to the experimental material through the earphones to tape recorder #1. Recorder #2 was present in order to tape subjects who were instructed to count backwards in the TC condition. To control for the possible effects of the presence of recorder #2 on subjects' learning, this recorder was turned on during each experimental condition, although in the CM, OM, and C conditions it recorded silence.

Covert modelling (CM). Following is a description of the procedure applied in the CM condition. A verbatim report of the instructions and modelling which subjects listened to via audio-tape is presented in Appendix F.

1. Subjects listened to recorder #1 through earphones. A female narrator gave a brief description of the study and a rationale and description of the covert modelling procedure.

2. Subjects were instructed via audiotape to practice the covert modelling procedure. Practice entailed imagining themselves participating in a casual conversation. Because visual imagery was employed, the coversation was labelled a "scene." The content of the practice scene was unrelated to the topic of research. Practice was included in the study to help familiarize covert modelling subjects with the technique and to ensure that each subject had the ability to image and engage in the covert modelling procedure. Other research examining the efficacy of covert modelling include a practice component (e.g. Kazdin, 1974d, 1975, 1976a; Nietsel et al., 1977). The practice procedure in the present study was identical to the procedure applied in the treatment.

3. Subjects were instructed to turn off the tape recorder and summon the experimenter after the practice was completed. The experimenter questioned each subject about the clarity of the visual imagery, whether the subject imagined herself in the scene, and how clearly the subject would imagine herself speaking the words narrated on the tape. All subjects completed the practice successfully.

4. The experimenter then turned on recorders #1 and #2 and left the room. Subjects were told that recorder #2 would tape tape recorder #1 and that they need not worry about the taping.

5. Subjects proceeded to listen to the remainder of the training on recorder #1. The narrator gave a brief description and rationale for empathic responding.

6. Subjects were then instructed to close their eyes, relax, and imagine themselves as a helper communicating empathy to a client. They were instructed to be as clear and vivid with their imagery as possible, to include facial and body expressions in their imagery, and to imagine themselves using the same empathic responses as did the helper on the tape.

7. Subjects imagined themselves in two separate interviews. Each interview contained four "scenes", or major exchanges between the helper and client. For each scene, subjects listened to (a) a brief description of the scene, (b) a client statement, (c) the helper's modelled empathic response, and (d) a subsequent statement of agreement by the client which served as a reinforcer to the model. Reinforcement was included in the study because research has demonstrated that reinforcement enhances covert modelling treatment (Kazdin, 1974d, 1975, 1976c). After the scene was

presented, subjects were instructed to imagine the scene again. Twenty seconds of silence were allotted for the imaging, after which the subject was instructed to stop.

8. The next scene was presented and the covert modelling procedure was repeated until all four scenes of the interview had been imagined.

9. The interview was then repeated following the same procedure. Presenting treatment scenes twice is the standard procedure in covert modelling treatment.

10. A second interview, with a different client and different client concern, was presented and the covert modelling procedure repeated. Total tape time for the CM condition was 29 minutes.

11. Following treatment, the experimenter re-entered the room and gave each subject written instructions which asked the subject to write empathic responses to the CCI and orally respond with empathy to client statements on the video stimulus tape. The order of the CCI and video stimulus tape was counterbalanced to control for possible order effects. The subject's oral responses to the videotape were audiotaped. The experimenter left the room during assessment.

12. Following assessment, the experimenter re-entered the room and administered the Self-Report Imagining Survey.

13. The experimenter then spoke briefly with the subject about the research and answered any questions. At this point the experimenter checked with the subject once more as to whether she had received any previous empathy training. Subjects were told that a short summary of the research results would be mailed to them when the research was completed.

Overt modelling (_OM_). Following is a description of the procedure applied in the OM condition. A verbatim report of the instructions and modelling which subjects listened to via audiotape is presented in Appendix G.

1. Subjects listened to recorder #1 through earphones. A female narrator gave a brief description of the study and a rationale and description of modelling.

2. Subjects were given the same practice conversation to listen to as was used in the practice scenes in the CM condition. In contrast, however, they were not told to imagine themselves partaking in the conversation, but rather to practice "listening" to the conversation. The modelling procedure used in the practice was identical to the procedure applied in the treatment.

3. Subjects were instructed to turn off the tape recorder and summon the experimenter after the practice was completed. The experimenter questioned each subject about

whether she could hear the conversation on the tape clearly. Practice was included in this condition primarily as a control for the practice element in the covert modelling condition.

4. The experimenter then turned on recorders #1 and #2 and left the room. Subjects were told that recorder #2 would tape tape recorder #1 and that they need not worry about the taping.

5. Subjects listened to the remainder of the training on recorder #1. The narrator gave a brief description and rationale for empathic responding.

6. Subjects were then instructed to relax and listen closely to the conversation in which the helper communicated empathy to a client.

7. Subjects listened to two separate interviews. Each interview contained four "scenes", or exchanges between the helper and client. As in the CM condition, for each scene subjects listened to (a) a brief description of the scene, (b) a client statement, (c) the helper's modelled empathic response, and (d) a subsequent statement of agreement by the client. After the scene was presented, subjects were instructed to listen to the scene again. The second exposure of modelling to the scene occurred within the same 20 second interval in which subjects in the CM condition imagined the scene.

8. After the second exposure to the scene, the next scene was presented and the procedure repeated until all four scenes of the interview had been listened to.

9. The interview was then repeated following the same procedure.

10. A second interview, with a different client and different client concern, was presented and the modelling procedure repeated. Total tape time for the OM condition was 29 minutes.

11. Following treatment, the experimenter re-entered the room and gave each subject written instructions which asked the subject to write empathic responses to the CCI and orally respond with empathy to client statements on the video stimulus tape. The order of the CCI and video stimulus tape was counterbalanced to control for possible order effects. Subjects' oral responses to the videotape were audiotaped. The experimenter left the room during assessment.

12. Following assessment, the experimenter re-entered the room and spoke briefly with each subject about the research and answered any questions. At this point the experimenter checked with the subject once more as to whether she had received previous empathy training. Subjects were told that a short summary of the research results would be mailed to them when the research was completed.

Treatment control (TC). Following is a description of the procedure applied in the TC condition. A verbatim report of the instructions and modelling which subjects listened to via audiotape is presented in Appendix H.

1. Subjects listened to recorder #1 through earphones. A female narrator gave a brief description of the study and a rationale and description of modelling.

2. Subjects were given the same practice conversation to listen to as was used for the practice scenes in the CM and OM conditions. As in the OM condition, subjects were told to practice "listening" to the conversation. The procedure used in the practice was identical to the procedure applied in the treatment.

3. Subjects were instructed to turn off the recorder and summon the experimenter after the practice was completed. The experimenter questioned each subject as to whether or not she could hear the conversation on the tape clearly. Practice was included in this condition primarily as a control for the practice element in the covert modelling condition.

4. The experimenter then turned on recorders #1 and #2 and left the room. Subjects were told that the purpose of recorder #2 was to tape the backwards counting and to assure us that the subject counted backwards as instructed. Sub-

jects were told that we were not concerned with whether or not the counting was accurate, and that they need not worry about the taping.

5. Subjects listened to the remainder of the training on recorder #1. The narrator gave a brief description and rationale for empathic responding.

6. Subjects were then instructed to relax and listen closely to the conversation in which the helper communicated empathy to a client.

7. Subjects listened to two separate interviews. Each interview contained four "scenes", or exchanges, between the helper and client. As in the CM and OM conditions, for each scene subjects listened to (a) a brief description of the scene, (b) a client statement, (c) the helper's modelled empathic response, and (d) a subsequent statement of agreement by the client. After the scene was presented, subjects were instructed to count backwards from a particular number. The counting lasted 20 seconds. Counting backwards was used as a control for the time spent imaging in the CM condition, and the time spent listening to the conversation a second time in the OM condition. After 20 seconds, the subject was instructed to stop counting.

8. The next scene was presented and the procedure repeated until all four scenes of the interview had been listened to.

9. The interview was then repeated following the same procedure.

10. A second interview, with a different client and different client concern, was presented and the procedure repeated. Total tape time for the TC condition was 29 minutes.

11. Following treatment, the experimenter re-entered the room and gave each subject written instruction which asked the subject to write empathic responses to the CCI and orally respond with empathy to the client statements on the video stimulus tape. The order of the CCI and video stimulus tape was counterbalanced to control for possible order effects. Subjects' oral responses to the video tape were audiotaped. The experimenter left the room during assessment.

12. Following assessment, the experimenter re-entered the room and spoke briefly with each subject about the research and answered any questions. At this point the experimenter checked with the subject once more as to whether she had received previous empathy training. Subjects were told that a short summary of the research results would be mailed to them when the research was completed.

13. After the subject had left the lab, the experimenter spot-checked the audiotape which had recorded the sub-

ject's counting. This was to help ensure that subjects had participated in the counting as they had been instructed, and had not spent time either imaging or thinking about the interview they had heard. All subjects in the TC condition adhered to the counting instructions.

No-treatment control (C). Following is a description of the procedure applied in the C condition. A verbatim report of the instructions subjects listened to via audio-tape is presented in Appendix I.

1. Subjects listened to recorder #1 through earphones. A female narrator gave a brief introduction to the study.

2. Subjects were instructed to turn off the recorder and summon the experimenter when the introduction was finished.

3. The experimenter then turned on recorders #1 and #2 and left the room. Subjects were told that recorder #2 would tape tape recorder #1 and that they need not worry about the taping.

4. Subjects listened to the remainder of the tape on recorder #1. The narrator gave a brief description and rationale for empathic responding. It is important to note that the subjects in the C condition received the same information about empathy as did the subjects in the training conditions. It was believed that including information

about empathy in the C condition would provide for a more rigorous test of the effectiveness of the various modelling procedures in the other conditions. Total tape time for the C condition was 2 minutes and 20 seconds.

5. The experimenter then re-entered the room and gave each subject written instructions which asked the subject to write empathic responses to the CCI and orally respond with empathy to the client statements on the video stimulus tape. The order of the CCI and video stimulus tape was counterbalanced to control for possible order effects. Subjects' oral responses to the videotape were recorded on audiotape. The experimenter left the room during assessment.

6. Following assessment, the experimenter re-entered the room and spoke briefly with each subject about the research and answered any questions. At this point the experimenter checked with the subject once more as to whether she had received previous empathy training. To help make the experience more worthwhile for the C subjects, they were then allowed to listen to the interviews on the master modelling tape. Control subjects, therefore, received some modelling of empathy after they had been assessed. Subjects were told that a short summary of the research results would be mailed to them when the research was completed.

CHAPTER V

Hypotheses

The purpose of the study was to assess and compare the efficacy of covert modelling and overt modelling in teaching empathic responding to female university students. The following hypotheses were investigated.

1. The overt modelling, covert modelling, and treatment control groups will be rated significantly higher on written and oral empathy than will the no-treatment control group.

2. The overt modelling and covert modelling groups will be rated significantly higher than the treatment control group on written and oral empathy.

3. There will be no significant differences in written or oral empathy ratings between the covert modelling and overt modelling groups.

CHAPTER VI

Results

A randomized design incorporating four experimental conditions was used for the research. One-way analyses of variance (Kirk, 1968) were used to test for over-all treatment effects. Where over-all treatment effects were found, post hoc comparisons of the treatment means were conducted using the Scheffe multiple comparison of means. Raw data for subject empathy on the CCI and subject empathy to the video stimulus tape are reported in Appendices J and K respectively.

Empathy Ratings of Subject Responses on the CCI

Means and standard deviations of posttreatment empathy ratings of subject written responses on the CCI are presented in Table 1. A one-way ANOVA was conducted to test for over-all treatment effect (see Table 2). The ANOVA results indicate a significant treatment effect, $F(3,60)=19.07$, $p<.001$.

Post hoc comparisons between treatment means were made using the Scheffe multiple comparison of means. Results indicate that the CM, OM, and TC conditions were significantly different from the C condition. The CM, OM, and TC conditions were not significantly different from each other.

Table 1

Means and Standard Deviations of CCI Empathy Ratings by Experimental Condition

	Experimental Condition			
	CM[a]	OM	TC	C
$\bar{X}$	2.22	2.29	2.32	1.64
SD	0.30	0.38	0.29	0.14

Note: CCI = Carkhuff Communication Index

[a]CM = Covert Modelling Condition

OM = Overt Modelling Condition

TC = Treatment Control Condition

C = No-treatment Control Condition

Table 2

Analysis of Variance for Treatment Conditions on CCI Empathy Ratings

Source	SS	df	MS	F
Between Conditions	0.49	3	1.62	19.07*
Within Conditions	0.51	60	0.09	
Total	1.00	63		

Note: CCI = Carkhuff Communication Index

*$p<.001$

Empathy Ratings of Subject Responses to Video Stimulus Tape

Table 3 presents the means and standard deviations of posttreatment empathy ratings of subject oral responses to the video stimulus tape. One-way ANOVA (see Table 4) indicate a significant overall treatment effect, F (3,59)=29.13, p<.001. Data are not available for one subject in the TC condition due to mechanical difficulties with the audiotape.

Post hoc comparisons of the treatment means were made using the Scheffe multiple comparison of means. Results indicate that the CM, OM, and TC conditions were significantly different from the C condition. The CM, OM, and TC conditions were not significantly different from each other.

Examination of Tables 1 and 3 reveals large differences in the standard deviations between the C condition and other experimental conditions. Subjects in the C condition did not receive empathy training, and, therefore, it might be expected that there would be little variation within the C group, accounting for the small standard deviation. However, subjects in the CM, OM, and TC conditions received empathy training, and, therefore, much greater variability might be expected because of differential response to training. Indeed, an examination of the raw data indicates that in the three treatment conditions some subjects performed very well at assessment, whereas other subjects performed no

Table 3

Means and Standard Deviations of Empathy Ratings to the Video Stimulus Tape by Experimental Condition

	Experimental Condition			
	CM[a]	OM	TC	C
$\bar{X}$	2.53	2.59	2.70	1.14
SD	0.58	0.68	0.55	0.16

[a]CM = Covert Modelling Condition

OM = Overt Modelling Condition

TC = Treatment Control Condition

C = No-treatment Control Condition

Table 4

Analysis of Variance for Treatment Conditions on Empathy Ratings to the Video Stimulus

Source	SS	df	MS	F
Between Conditions	0.25	3	8.24	29.13*
Within Conditions	0.17	59	0.28	
Total	0.42	62		

*$p < .001$

better than the no-treatment control subjects. This differential response to training resulted in large standard deviations in the CM, OM, and TC groups.

Responses to the Self-Report Imagery Survey

All 16 subjects in the CM condition completed the SRIS. Table 5 presents the number and percentage of subject responses per multiple choice item for each survey question.

Results of the SRIS suggest that subjects conformed very closely to the covert modelling instructions. All subjects imagined themselves as the helper. All but one subject imagined the helper using either very much or somewhat the same words as were used by the model on the tape. Similarly, all but one subject could visualize the interview between the helper and client either very clearly or somewhat clearly in their imaginations. All subjects reported hearing the voices of the helper and client either very clearly or somewhat clearly in their imaginations. Thirteen of the sixteen subjects reported feeling either very calm or somewhat calm during treatment. Three subjects reported feeling somewhat anxious and nervous, and no subjects reported feeling very anxious and nervous.

Table 5

SRIS: Number and % of Subject Responses per Multiple Choice Item for each Survey Question

Survey Question	Multiple Choice Item				
	a	b	c	d	e
1.	16 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
2.	6 (37.50%)	9 (56.25%)	0 (0%)	1 (6.25%)	0 (0%)
3.	9 (56.25%)	6 (37.50%)	0 (0%)	1 (6.25%)	0 (0%)
4.	12 (75.00%)	4 (25.00%)	0 (0%)	0 (0%)	0 (0%)
5.	0 (0%)	3 (18.25%)	0 (0%)	6 (37.50%)	7 (43.75%)

NOTE: SRIS = Self-Report Imagining Survey

CHAPTER VII

Discussion

The major purpose of the study was to assess and compare the efficacy of covert modelling with overt modelling in the acquisition of empathic communication. A secondary purpose was to implement a methodology which would control for the confounding of overt and covert variables. It was hypothesized that subjects in CM, OM, and TC conditions would outperform those in the C condition, and that CM and OM groups would outperform the TC group. In addition, it was predicted that there would be no significant differences in performance between OM and CM groups.

The results of the study confirm those of other studies (e.g. Gulanick & Schmeck, 1977; Perry, 1975; Ronnestad, 1977) which have found that modelling is an effective method of teaching empathic responding. All groups which received some modelling outperformed the C group on written and oral measures of empathy. It is worth noting that the C condition did not incorporate modelling but did include the same brief description and rationale for empathy as did the other groups. Therefore, the test for modelling effectiveness was a rigorous one.

The results did not support the hypothesis that CM and OM groups would outperform the TC group. Subjects in the TC

group received a minimal amount of overt modelling; subjects in the CM group received overt modelling and engaged in imagery; and subjects in the OM group received twice as much overt modelling as did the TC subjects. There were no significant differences in written or oral measures of empathy among the three groups.

That CM subjects did not outperform TC subjects suggests that the imagery used in covert modelling did not enhance the overt modelling effects. One interpretation of the results is that the covert self-modelling procedure, that is, imagining oneself perform the target skill, is ineffective in empathy training with female university students as subjects. The results reported in the Scott et al. (1980) study and in the assertion training literature (e.g. Kazdin, 1974d, 1975, 1976a; Nietzel et al., 1977) must, therefore, be regarded with caution. These studies confounded overt and covert modelling. It is possible that the reported training effects were not a result of covert modelling at all, but rather a result of the overt modelling presented by the narrator of the treatment scenes.

A second explanation for the results of the present study is that TC subjects may have received sufficient overt modelling during treatment to allow them to grasp the skill of empathic responding and to perform equally well to CM and

OM subjects. It was thought upon designing the study that TC subjects, receiving approximately 5 minutes of modelling, would not perform as well as CM and OM subjects who received longer modelling, either overt or covert, of approximately 10 minutes. Support for this supposition is derived from the Stone and Stein (1978) study in which longer modelling produced greater empathy and reflection of feeling ratings than did shorter modelling. In fact, Stone and Stein reported that the short modelling condition of five minutes, when used alone without instructions, produced no significant treatment effects at all. The authors concluded that repeated modelling trials enhance skill performance. However, the results of the present study demonstrate that there were no significant differences between the TC group, which received the fewest modelling trials, and the CM and OM groups, which received longer modelling. It may be that five minutes of modelling was sufficient for TC subjects to learn empathic responding to a level which CM and OM subjects could not surpass in a brief analogue situation.

There may be additional explanations for why the OM group did not attain empathy levels higher than those of the TC group. One reason could be that the modelling time in the OM condition was not sufficiently long to produce significantly higher empathy ratings than those in the TC con-

dition. Stone and Stein (1978) found that increasing the length of time of the modelling condition fourfold produced significantly higher empathy ratings. In the present study, modelling in the group was twice as long as that for the TC group. Perhaps there would have been significant differences between OM and TC groups if OM subjects had received four times the amount of modelling as did TC subjects.

Another explanation for the lack of differences in treatment outcome between OM and TC groups is that the former group may have experienced more boredom with the treatment than the latter. The OM subjects listened to each modelling scene a total of four times. It is possible that subjects became bored and failed to attend to all modelling exposures. The TC subjects, on the other hand, listened to each scene twice and were busy with a distraction activity between each exposure. Perhaps the TC subjects, as they were more active during the procedure, were not as bored with the treatment and were more motivated to attend closely to each modelling scene. However, there were no reports during debriefing of OM subjects being bored with the procedure.

The hypothesis that there would be no significant differences in written and oral empathy measures between CM and OM groups was supported. Other studies (Hersen et al.,

1979; Rosenthal & Reese, 1976) have reported overt and covert modelling to be equally effective in verbal skills training. However, the results of the present study demonstrated that it was the overt modelling inherent in the covert modelling condition, and not the covert modelling per se, which produced the treatment effects. Consequently, the validity of the results from other studies, which claim that covert and overt modelling are equally effective but confound covert and overt modelling variables, must be seriously questioned.

Implications and Suggestions for Future Study

Results of the present study indicate that overt modelling is a very powerful training method. Subjects who were exposed to a mere five minutes of modelling learned how to communicate empathy at a much higher level than did subjects who received a brief description of the skill but not modelling. These findings suggest that modelling is an extremely important component in counsellor training. Listening to a model perform the skill appears to be much more effective than merely listening to a description of the skill. Communications skills training programs, therefore, should continue to employ overt models as a component of training.

The results of the present study indicate that there is a need for more rigorous experimental design in research examining the efficacy of covert modelling in verbal skills training. To date, covert modelling research seems to confound the covert modelling procedure with overt modelling variables whenever verbal skills are taught. Covert modelling can be accurately assessed only if the experimental design controls for all overt modelling activities inherent in the treatment. One means of controlling for overt modelling is to include a treatment control group which, as in the present study, incorporates the inherent overt modelling but not the imagery components of the covert modelling procedure.

Researchers must be careful, however, to design a treatment control group which is only minimally effective. That is, the overt modelling in the treatment control condition should not be strong enough to produce treatment effects which are so large that it becomes impossible for other training conditions to outperform the treatment control. More research is needed, therefore, to investigate the relationship between length of modelling and treatment outcome. Exactly how much modelling of the target skill is necessary for a minimum significant effect to occur?

The relationship between length of modelling and treatment outcome may differ according to the skill which is taught. For example, the amount of modelling necessary for subjects to learn assertive responses may differ from the amount necessary for subjects to learn empathic responses. The present study indicated that five minutes of modelling in empathy training is sufficient to produce a significant treatment effect and that doubling the modelling time did lead to an increment in performance. More research is necessary to clarify the relationship between length of modelling and the acquisition of empathic responding. Research might also investigate the relationship between length of modelling and the acquisition of other skills, such as assertive responses.

The results of the present study suggest that imagery does not improve upon overt modelling effects in empathy training. Future research, however, might investigate the efficacy of covert modelling for other counselling skills. Research on the effects of covert modelling in nonverbal skills training might be particularly valuable and easy to design, as there need not be any confounding with overt modelling when nonverbal skills are taught.

Research exploring communication skills training methods might also examine the efficacy of adding an overt

rehearsal component to the covert modelling procedure. Although imagery was not employed in the Layton (1978) study, it was demonstrated that covert rehearsal was effective in teaching empathy to junior nursing students when it was used in conjunction with overt modelling and overt rehearsal. Other studies that have been concerned with increasing assertive behaviors (Kazdin, 1982; Kazdin & Mascitelli, 1982) have demonstrated that the combination of covert modelling and overt rehearsal is more effective than either procedure used alone. Therefore, it is possible that covert modelling for empathy acquisition might produce treatment effects when combined with other components of training, such as overt rehearsal.

Research investigating the following related issues is also suggested:

(a) the relationship between treatment outcome and time allowed for imagery in covert modelling treatment;

(b) the relationship between treatment outcome and the number of times treatment scenes are repeated in covert modelling treatment; and

(c) the effect of overt and covert modelling in communication skills acquisition at follow-up periods of one to two weeks after training and again three months later.

Limitations of the Present Study

The following limitations of the study are acknowledged for consideration in future research:

1. The covert modelling treatment was relatively brief, consisting of one treatment of 29 minutes. Covert modelling for assertive behaviors usually involves four sessions spanning a two week period. Covert modelling for empathy training may have been more effective had training consisted of more sessions. It must be noted, however, that the Scott et al. (1980) study used the covert modelling paradigm to teach a counselling strategy in 30 minutes.

2. Subjects consisted of female undergraduate university students. The generalizability of the research results are, therefore, limited to the female university population.

3. No assessment of subject motivation was made in the present study. An instrument used to assess motivation would provide information as to whether covert and overt modelling treatment differ in their effects upon subjects' motivation to learn and perform the target skill.

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APPENDIX A

Modelling Interview: Interview 1

Modeling Interview: Interview 1

Scene 1

Client: You know I...I get so mad at my parents! They're always bossing me around!

Helper: You're really angry at your parents for always telling you what to do.

Client: Yeah, really.

Scene 2

Client: They make me feel so uptight. I try to please them, but they put me down no matter what I do.

Helper: You feel really frustrated because even though you try to please them, they still criticize you.

Client: Yeah!

Scene 3

Client: I've tried to talk to Mom and Dad about it but they never listen. They just get on my back even more.

Helper: Sounds like you're really discouraged because you can't reach your Mom and Dad. You want them to let up on you.

Client: Yeah, right.

Scene 4

Client: I feel so stupid when I'm with them. They must think I'm still two years old.

Helper: You feel inadequate because you can't get through to them that you're not a child. You want them to treat you like an adult.

Client: Yeah. I'm sure glad you understand.

APPENDIX B

Modelling Interview: Interview 2

Modelling Interview: Interview 2

Scene 1

Client: John, my boyfriend, and I had a fight a week ago. Since our argument I've been feeling really awful, really down.

Helper: You've been feeling pretty depressed ever since your argument with John.

Client: Yeah, right.

Scene 2

Client: I'm...I'm always thinking about him...thinking I may never see him again!

Helper: You're really worried that you may have lost him and that maybe it's all over between you. It sounds like you want to keep the relationship going.

Client: Yeah, exactly.

Scene 3

Client: I was so dumb! I started the argument over some little thing. Now I've ruined everything!

Helper: You sound really angry at yourself for arguing with John. It seems like you wish you had handled things differently.

Client: Yeah, that's right.

Scene 4

Client: I should have apologized. But it's so hard for me to admit to anyone that I've been wrong. I feel so foolish.

Helper: You feel really embarrassed when you have to admit to someone that you've made a mistake.

Client: Yeah, really embarrassed.

APPENDIX C

Video Stimulus Tape: Client Statements

Video Stimulus Tape: Client Statements

1. My brother told my parents he saw me drinking and driving! I'll break his neck when I get my hands on him! Why couldn't he keep his big mouth shut?
2. I really miss my friends in Kelowna. I don't know anybody here. I hate being all by myself.
3. My teacher came over and saw the mistake I'd made. He just laughed at me - right in front of everybody. My face went so red. He made me feel like a fool!
4. I'm really afraid when my boyfriend screams and shouts at me. Sometimes I think he's going to hit me. He really intimidates me.
5. I cheated on my exam. It's been bugging me ever since. It was a dumb thing to do. I feel awful about it now.
6. I've been trying to lose weight for six months. I've been dieting, jogging three times a week. And in six month's I've only lost two pounds.

APPENDIX D

Instructions for Oral Responses to Client Statements on Video Stimulus Tape

Instructions for Oral Responses to Client Statements

On the video monitor you will see and listen to a total of six clients. Each client will, in two or three sentences, speak about a problem.

You are to respond, out loud, with empathy to each client as if the client had come to you, as the helper, for assistance. You will have 30 seconds to respond to each client before the next client starts to speak. Your responses will be tape-recorded.

Each of the six client statements is independent of the others. Therefore, do not attempt to relate any one statement to a previous statement. Simply respond with empathy to the client's immediate statement.

Although many responses might seem appropriate, use only those which you feel communicate empathy to the client.

APPENDIX E

Self-Report Imagery Survey

(SRIS)

Self-Report Imagery Survey

Instructions

Circle the letter of the answer which best describes what happened during the covert modelling procedure.

1. Who did you imagine as the helper?

   a) myself
   b) another person, same age and sex as me
   c) another person, same age but different sex than me
   d) another person, different in age but same sex as me
   e) I can't remember

2. To what extent did you imagine the helper using the same words as were narrated on the tape?

   a) the helper I imagined used very much the same words as were narrated.
   b) the helper I imagined used somewhat the same words as were narrated.
   c) I can't remember if the helper I imagined used the same or different words as were narrated.
   d) the helper I imagined used somewhat different words than were narrated.
   e) the helper I imagined used very different words than were narrated.

3. How clearly could you see the interview between the helper and client in your imagination?

   a) very clearly
   b) somewhat clearly
   c) I can't remember
   d) somewhat unclearly
   e) very unclearly

4. How clear could you hear the voices of the helper and client in your imagination?

   a) very clearly
   b) somewhat clearly
   c) I can't remember
   d) somewhat unclearly
   e) very unclearly

5. How anxious and nervous did you feel while you were imagining what was narrated to you on the tape?

   a) I felt very anxious and nervous
   b) I felt somewhat anxious and nervous
   c) I can't remember
   d) I felt somewhat calm
   e) I felt very calm

- Thank you -

APPENDIX F

Script for the

Covert Modelling Condition

Script for the Covert Modelling Condition

We all communicate with other people. There are certain skills we can learn, called interpersonal communication skills, which will help us to communicate more effectively with others. Communication skills are taught to many different groups of people, such as counsellors, parents, teachers, business persons, and others in the general population who want to communicate more effectively in their everyday lives with family and friends.

The purpose of this study is to investigate how effective different methods are in teaching people an interpersonal communication skill.

One method used to teach people new skills is called covert modelling. Covert modelling is when the person who is learning the skill closes his or her eyes and visualizes in his or her mind someone performing the skill. In our case, you will imagine yourself performing the skill. Research has shown that covert modelling is effective in teaching people new skills.

In this study, you will learn about a specific communication skill called empathy. First you will listen to a tape recording describing what empathy is. Then you will listen to some modelled demonstrations of empathy. Finally, you will imagine yourself as a "helper," who is someone who

helps others in time of need, responding with empathy to a client. After you have listened to and imagined the modelling demonstration, you will be asked to use empathic communication in a variety of ways.

Before we begin the study, you will have a chance to practice the procedure you will be using. In this practice, you will listen to and imagine a brief conversation between a male and a female friend. We will call this conversation a "scene." The scene you are about to listen to and imagine has nothing to do with empathy. It is simply a short conversation between two friends about skiing.

While the scene is being presented to you, visualize the scene actually taking place. Imagine <u>yourself</u> as the female person in the scene. Imagine how you and your friend look as you talk to one another, and imagine yourselves actually saying the words presented to you on the tape. A silence will follow in which you will be asked to imagine the scene again without any input from the tape recorder. In this silence, imagine again what you and your friend said, and how you both looked as you talked to one another.

Now close your eyes, take a deep breath, and relax.

(Pause for 5 seconds)

Form an image in your mind of yourself and a male friend sitting in a room, talking to one another. Try and

visualize yourself and the other person clearly. Imagine what facial and body expressions you and your friend would have as you talk together. Hear the conversation as clearly as possible.

Imagine you and your friend having the following conversation. Your friend begins the conversation.

Male Friend: I really hope it gets cold enough to snow this year. You know, last year I didn't get any skiing in at all.

Female Friend: I know what you mean. I finally went skiing up north where there was lots of snow.

Male Friend: That was a good idea.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

For more practice in imagining, the scene will be repeated. Imagine you and your friend having the following conversation. Your friend begins the conversation.

Male Friend: I really hope it gets cold enough to snow this year. You know, last year, I didn't get any skiing in at all.

Female Friend: I know what you mean. I finally went skiing up north where there was lots of snow.

Male Friend: That was a good idea.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

We are now ready to begin the study in which you will learn about empathy. If you have any questions or concerns, discuss these with the experimenter now. If not, tell the experimenter that you are ready to begin.

Responding with empathy is a communication skill commonly used by "helpers," who are people who help others in time of need. In a helping relationship with a client, the helper responds with empathy to the client by communicating the helper's understanding of the client's ideas and feelings. There is research evidence which indicates that clients who have helpers who respond with empathy are more likely to benefit from the helping relationship than are clients who have helpers who do not respond with empathy. Thus, responding with empathy is a valuable skill for helpers to know.

You will now listen to a portion of an interview in which the helper is responding with empathy to a client. While the helper and client are talking, visualize in your mind this interview taking place. Imagine that you are the helper. Be as clear and vivid in your imagery as possible. Imagine what the client's facial expressions and body posture might be. See your own facial and body expressions. Imagine yourself and the client actually saying the words that are presented on the tape.

The interview is divided into four major interactions, which we will call "scenes." You will listen to and imagine each scene while it is being presented. Then as a silence will follow in which you will be asked to imagine the scene again. In this silence, imagine again what the client said, what you as the helper said, and how you both looked as you talked together. After the silence, you will be instructed to stop imagining that scene and to begin imagining the next scene.

Each of the four scenes belong to the same interview. Think of the scenes as flowing from one to the other. Scene 1 flows to scene 2, scene 2 flows to scene 3, and the third scene flows to the fourth. Once you have listened to and imagined the four scenes of the interview, the entire interview will be repeated.

Now close your eyes, take a deep breath, and relax.

(Silent pause for 5 seconds)

<u>Scene 1</u>

Imagine the following interview between yourself as a helper and a client. See yourself with a male client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: You know...I get so mad at my parents. They're always bossing me around.

Helper: You're really angry at your parents for always telling you what to do.

Client: Yeah, really.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

<u>Scene 2</u>

Imagine yourself as the helper continuing to talk with the same client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: They make me feel so uptight. I try to please them, but they put me down no matter what I do.

Helper: You feel really frustrated because even though you try to please them, they still criticize you.

Client: Yeah!

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

Scene 3

Imagine yourself as the helper continuing to talk with the same client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: I've tried to talk to Mom and Dad about it but they never listen. They just get on my back even more.

Helper: Sounds like you're really discouraged because you can't reach your Mom and Dad. You want them to let up on you.

Client: Yeah, right.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

Scene 4

Imagine yourself as the helper continuing to talk with the same client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: I feel so stupid when I'm with them. They must think I'm still two years old.

Helper: You feel inadequate because you can't get through to them that you're not a child. You want them to treat you like an adult.

Client: Yeah. I'm sure glad you understand.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

To increase your understanding of empathy, the entire interview will now be repeated.

Scene 1

Imagine the following interview between yourself as a helper and a client. See yourself with a male client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: You know I...I get so mad at my parents. They're always bossing me around.

Helper: You're really angry at your parents for always telling you what to do.

Client: Yeah, really.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

Scene 2

Imagine yourself as the helper continuing to talk with the same client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: They make me feel so uptight. I try to please them, but they put me down no matter what I do.

Helper: You feel really frustrated because even though you try to please them, they still criticize you.

Client: Yeah!

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

Scene 3

Imagine yourself as the helper continuing to talk with the same client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: I've tried to talk to Mom and Dad about it but they never listen. They just get on my back even more.

Helper: Sounds like you're really discouraged because you can't reach your Mom and Dad. You want them to let up on you.

Client: Yeah, right.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

Scene 4

Imagine yourself as the helper continuing to talk with the same client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: I feel so stupid when I'm with them. They must think I'm still two years old.

Helper: You feel inadequate because you can't get through to them that you're not a child. You want them to treat you like an adult.

Client: Yeah. I'm sure glad you understand.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

You will now listen to and imagine another interview between yourself as the helper and a client. The client is different from the one in the first interview, and the problem that the client brings to the interview is also different.

The procedure is the same as it was in the first interview. Keep your eyes closed, take a deep breath, and relax. (Pause for 5 seconds)

<u>Scene 1</u>

Imagine the following interview between yourself as a helper and a client. See yourself with a female client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: John, my boyfriend, and I had a fight a week ago. Since our argument I've been feeling really awful, really down.

Helper: You've been feeling pretty depressed ever since your argument with John.

Client: Yeah.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

Scene 2

Imagine yourself as the helper continuing to talk with the same client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: I'm...I'm always thinking about him...thinking I may never see him again.

Helper: You're really worried that you may have lost him and that maybe it's all over between you. It sounds like you want to keep the relationship going.

Client: Yeah, exactly.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

Scene 3

Imagine yourself as the helper continuing to talk with the same client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: I was so dumb! I started the argument over some little thing. Now I've ruined everything!

Helper: You sound really angry at yourself for arguing with John. It seems like you wish you had handled things differently.

Client: Yeah, that's right.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

Scene 4

Imagine yourself as the helper continuing to talk with the same client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: I should have apologized. But it's so hard for me to admit to anyone that I've been wrong. I feel so foolish.

Helper: You feel really embarrassed when you have to admit to someone that you've made a mistake.

Client: Yeah, really embarrassed.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

To increase your understanding of empathy, the entire interview will now be repeated.

Scene 1

Imagine the following interview between yourself as a helper and a client. See yourself with a female client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: John, my boyfriend, and I had a fight a week ago. Since our argument, I've been feeling really awful, really down.

Helper: You've been feeling pretty depressed ever since your argument with John.

Client: Yeah, right.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

Scene 2

Imagine yourself as the helper continuing to talk with the same client. Image that the first voice is the client's. Imagine yourself responding with empathy.

Client: I'm...I'm always thinking about him...thinking I may never see him again.

Helper: You're really worried that you may have lost him and that maybe it's all over between you. It

sounds like you want to keep the relationship going.

Client: Yeah, exactly.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

Scene 3

Imagine yourself as the helper continuing to talk with the same client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: I was so dumb! I started the argument over some little thing. Now I've ruined everything!

Helper: You sound really angry at yourself for arguing with John. It seems like you wish you had handled things differently.

Client: Yeah, that's right.

Imagine this scene again.

(Silent pause for 20 seconds)

Stop imagining.

Scene 4

Imagine yourself as the helper continuing to talk with the same client. Imagine that the first voice is the client's. Imagine yourself responding with empathy.

Client: I should have apologized. But it's so hard for me to admit to anyone that I've been wrong. I feel so foolish.

Helper: You feel really embarrassed when you have to admit to someone that you've made a mistake.

Client: Yeah, really embarrassed.

Imagine this scene again.

Stop imagining.

This is the end of the tape recording. Let the experimenter know you have finished the tape and get further instructions.

APPENDIX G

Script for the

Overt Modelling Condition

Script for the Overt Modelling Condition

We all communicate with other people. There are certain skills we can learn, called interpersonal communication skills, which will help us to communicate more effectively with others. Communication skills are taught to many different groups of people, such as counsellors, parents, teachers, business persons, and others in the general population who want to communicate more effectively in their everyday lives with family and friends.

The purpose of this study is to investigate how effective different methods are in teaching people an interpersonal communication skill.

One method used to teach people new skills is called modelling. Modelling is when the person who is learning the skill listens to someone else performing the skill. Research has shown that modelling is effective in teaching people communication skills.

In this study, you will learn about a specific communication skill called empathy. First you will listen to a tape recording describing what empathy is. Then, you will listen to some modelled demonstrations of empathy. The modelling you will hear will be that of a "helper," who is someone who helps others in time of need, responding with empathy to a client. After you have listened to the mod-

elling demonstration, you will be asked to use empathic communication in a variety of ways.

Before we begin the study, you will have a chance to practice the procedure you will be using. In this practice, you will listen to a brief conversation between a male and female friend. We will call the conversation a "scene." The scene you are about to hear has nothing to do with empathy. It is simply a short conversation between two friend about skiing.

While the scene is being presented to you, listen closely to what the two friends are sayig. After you have listened to the scene once, you will listen to it for a second time. During this time, listen closely again to what the two friend say to each other.

Now take a deep breath, and relax.

(Pause for 5 seconds)

Listen closely to what the friends say to each other.

Listen to the two friends having the following conversation.

Male Friend: I really hope it gets cold enough to snow this year. You know, last year I didn't get any skiing in at all.

Female Friend: I know what you mean. I finally went skiing up north where there was lots of snow.

Male Friend: That was a good idea.

Listen to this scene again.

Male Friend: I really hope it gets cold enough to snow this year. You know, last year I didn't get any skiing in at all.

Female Friend: I know what you mean. I finally went skiing up north where there was lots of snow.

Male Friend: That was a good idea.

For more practice in listening, the scene will be repeated. Listen to the two friends having the following conversation.

Male Friend: I really hope it gets cold enough to snow this year. You know, last year I didn't get any skiing in at all.

Female Friend: I know what you mean. I finally went skiing up north where there was lots of snow.

Male Friend: That was a good idea.

Listen to this scene again.

Male Friend: I really hope it gets cold enough to snow this year. You know, last year I didn't get any skiing in at all.

Female Friend: I know what you mean. I finally went skiing up north where there was lots of snow.

Male Friend: That was a good idea.

We are now ready to begin the study in which you will learn about empathy. If you have any questions or concerns, discuss these with the experimenter now. If not, tell the experimenter that you are ready to begin.

Responding with empathy is a communication skill commonly used by "helpers," who are people who help others in time of need. In a helping relationship with a client, the helper responds with empathy to the client by communicating the helper's understanding of the client's ideas and feelings. There is research evidence which indicates that clients who have helpers who respond with empathy are more likely to benefit from the helping relationship than are clients who have helpers who do not respond with empathy. Thus, responding with empathy is a valuable skill for helpers to know.

You will now listen to a portion of an interview in which the helper is responding with empathy to a client. Listen closely to what the helper and client say in the interview.

The interview is divided into four major interactions, which we will call "scenes." You will listen to each scene while it is being presented. You will listen to each scene twice before the next scene is presented.

Each of the four scenes belong to the same interview. Think of the scenes as flowing from one to the other. Scene 1 flows to scene 2, scene 2 flows to scene 3, and the third scene flows to the fourth. Once you have listened to the four scenes of the interview, the entire interview will be repeated.

Now take a deep breath, and relax.

(Silent pause for 5 seconds)

<u>Scene 1</u>

Listen to the following interview between a helper and a client. The client is a male. The first voice is the client's. Listen to the helper responding with empathy.

Client: You know...I get so mad at my parents. They're always bossing me around.

Helper: You're really angry at your parents for always telling you what to do.

Client: Yeah, really.

Listen to this scene again.

Client: You know...I get so mad at my parents. They're always bossing me around.

Helper: You're really angry at your parents for always telling you what to do.

Client: Yeah, really.

Scene 2

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: They make me feel so uptight. I try to please them, but they put me down no matter what I do.

Helper: You feel really frustrated because even though you try to please them, they still criticize you.

Client: Yeah.

Listen to this scene again.

Client: They make me feel so uptight. I try to please them, but they put me down no matter what I do.

Helper: You feel really frustrated because even though you try to please them, they still criticize you.

Client: Yeah.

<u>Scene 3</u>

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I've tried to talk to Mom and Dad about it but they never listen. They just get on my back even more.

Helper: Sounds like you're really discouraged because you can't reach your Mom and Dad. You want them to let up on you.

Client: Yeah, right.

Listen to this scene again.

Client: I've tried to talk to Mom and Dad about it but they never listen. They just get on my back even more.

Helper: Sounds like you're really discouraged because you can't reach your Mom and Dad. You want them to let up on you.

Client: Yeah, right.

<u>Scene 4</u>

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I feel so stupid when I'm with them. They must think I'm still two years old.

Helper: You feel inadequate because you can't get through to them that you're not a child. You want them to treat you like an adult.

Client: Yeah. I'm sure glad you understand.

Listen to this scene again.

Client: I feel so stupid when I'm with them. They must think I'm still two years old.

Helper: You feel inadequate because you can't get through to them that you're not a child. You want them to treat you like an adult.

Client: Yeah. I'm sure glad you understand.

To increase your understanding of empathy, the entire interview will now be repeated.

<u>Scene 1</u>

Listen to the following interview between a helper and a client. The client is a male. The first voice is the client's. Listen to the helper responding with empathy.

Client: You know...I get so mad at my parents. They're always bossing me around.

Helper: You're really angry at your parents for always telling you what to do.

Client: Yeah, really.

Listen to this scene again.

Client: You know...I get so mad at my parents. They're always bossing me around.

Helper: You're really angry at your parents for always telling you what to do.

Client: Yeah, really.

Scene 2

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: They make me feel so uptight. I try to please them, but they put me down no matter what I do.

Helper: You feel really frustrated because even though you try to please them, they still criticize you.

Client: Yeah.

Listen to this scene again.

Client: They make me feel so uptight. I try to please them, but they put me down no matter what I do.

Helper: You feel really frustrated because even though you try to please them, they still criticize you.

Client: Yeah.

Scene 3

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I've tried to talk to Mom and Dad about it but they never listen. They just get on my back even more.

Helper: Sounds like you're really discouraged because you can't reach your Mom and Dad. You want them to let up on you.

Client: Yeah, right.

Listen to this scene again.

Client: I've tried to talk to Mom and Dad about it but they never listen. They just get on my back even more.

Helper: Sounds like you're really discouraged because you can't reach your Mom and Dad. You want them to let up on you.

Client: Yeah, right.

Scene 4

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I feel so stupid when I'm with them. They must think I'm still two years old.

Helper: You feel inadequate because you can't get through to them that you're not a child. You want them to treat you like an adult.

Client: Yeah. I'm sure glad you understand.

Listen to this scene again.

Client: I feel so stupid when I'm with them. They must think I'm still two years old.

Helper: You feel inadequate because you can't get through to them that you're not a child. You want them to treat you like an adult.

Client: Yeah. I'm sure glad you understand.

You will now listen to another interview between the helper and a client. The client is different from the one in the first interview, and the problem that the client brings to the interview is also different.

The procedure is the same as it was in th first interview. Take a deep breath and relax.

(Silent pause for 5 seconds)

Scene 1

Listen to the following interview between a helper and a client. The client is female. The first voice is the client's. Listen to the helper responding with empathy.

Client: John, my boyfriend, and I had a fight a week ago. Since our argument I've been feeling really awful, really down.

Helper: You've been feeling pretty depressed ever since your argument with John.

Client: Yeah, right.

Listen to this scene again.

Client: John, my boyfriend, and I had a fight a week ago. Since our argument I've been feeling really awful, really down.

Helper: You've been feeling pretty depressed ever since your argument with John.

Client: Yeah, right.

Scene 2

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I'm...I'm always thinking about him...thinking I may never see him again!

Helper: You're really worried that you may have lost him and that maybe it's all over between you. It sounds like you want to keep the relationship going.

Client: Yeah, exactly.

Listen to this scene again.

Client: I'm...I'm always thinking about him...thinking I may never see him again!

Helper: You're really worried that you may have lost him and that maybe it's all over between you. It sounds like you want to keep the relationship going.

Client: Yeah, exactly.

Scene 3

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I was so dumb! I started the argument over some little thing. Now I've ruined everything!

Helper: You sound really angry at yourself for arguing with John. It seems like you wish you had handled things differently.

Client: Yeah, that's right.

Listen to this scene again.

Client: I was so dumb! I started the argument over some little thing. Now I've ruined everything!

Helper: You sound really angry at yourself for arguing with John. It seems like you wish you had handled things differently.

Client: Yeah, that's right.

Scene 4

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I should have apologized. But it's so hard for me to admit to anyone that I've been wrong. I feel so foolish.

Helper: You feel really embarrassed when you have to admit to someone that you've made a mistake.

Client: Yeah, really embarrassed.

Listen to this scene again.

Client: I should have apologized. But it's so hard for me to admit to anyone that I've been wrong. I feel so foolish.

Helper: You feel really embarrassed when you have to admit to someone that you've made a mistake.

Client: Yeah, really embarrassed.

To increase your understanding of empathy, the entire interview will be repeated.

Scene 1

Listen to the following interview between a helper and a client. The client is female. The first voice is the client's. Listen to the helper responding with empathy.

Client: John, my boyfriend, and I had a fight a week ago. Since our argument I've been feeling really awful, really down.

Helper: You've been feeling pretty depressed ever since your argument with John.

Client: Yeah, right.

Listen to this scene again.

Client: John, my boyfriend, and I had a fight a week ago. Since our argument I've been feeling really awful, really down.

Helper: You've been feeling pretty depressed ever since your argument with John.

Client: Yeah, right.

Scene 2

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I'm...I'm always thinking about him...thinking I may never see him again!

Helper: You're really worried that you may have lost him and that maybe it's all over between you. It sounds like you want to keep the relationship going.

Client: Yeah, exactly.

Listen to this scene again.

Client: I'm...I'm always thinking about him...thinking I may never see him again!

Helper: You're really worried that you may have lost him and that maybe it's all over between you. It sounds like you want to keep the relationship going.

Client: Yeah, exactly.

Scene 3

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I was so dumb! I started the argument over some little thing. Now I've ruined everything!

Helper: You sound really angry at yourself for arguing with John. It seems like you wish you had handled things differently.

Client: Yeah, that's right.

Listen to this scene again. Client: I was so dumb! I started the argument over some little thing. Now I've ruined everything!

Helper: You sound really angry at yourself for arguing with John. It seems like you wish you had handled things differently.

Client: Yeah, that's right.

Scene 4

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I should have apologized. But it's so hard for me to admit to anyone that I've been wrong. I feel so foolish.

Helper: You feel really embarrassed when you have to admit to someone that you've made a mistake.

Client: Yeah, really embarrassed.

Listen to this scene again. Client: I should have apologized. But it's so hard for me to admit to anyone that I've been wrong. I feel so foolish.

Helper: You feel really embarrassed when you have to admit to someone that you've made a mistake.

Client: Yeah, really embarrassed.

This is the end of the tape recording. Let the experimenter know you have finished the tape and get further instructions.

APPENDIX H

Script for the

Treatment Control Condition

Script for the Treatment Control Condition

We all communicate with other people. There are certain skills we can learn, called interpersonal communication skills, which will help us to communicate more effectively with others. Communication skills are taught to many different groups of people, such as counsellors, parents, teachers, business persons, and others in the general population who want to communicate more effectively in their everyday lives with family and friends.

The purpose of this study is to investigate how effective different methods are in teaching people an interpersonal communication skill.

One method used to teach people new skills is called modelling. Modelling is when the person who is learning the skill listens to someone else performing the skill. Research has shown that modelling is effective in teaching people communication skills.

In this study, you will learn about a specific communication skill called empathy. First you will listen to a tape recording describing what empathy is. Then, you will listen to some modelled demonstrations of empathy. The modelling you will hear will be that of a "helper," who is someone who helps others in time of need, responding with empathy to a client. After you have listened to the mod-

elling demonstration, you will be asked to use empathic communication in a variety of ways.

Before we begin the study, you will have a chance to practice the procedure you will be using. In this practice, you will listen to a brief conversation between a male and female friend. We will call the conversation a "scene." The scene you are about to hear has nothing to do with empathy. It is simply a short conversation between two friend about skiing.

While the scene is being presented to you, listen closely to what the two friends are saying. After you have listened to the scene once, you will listen to it for a second time. During this time, listen closely again to what the two friend say to each other.

Now take a deep breath, and relax.

(Silent pause for 5 seconds)

Listen closely to what the friends say to each other.

Listen to the two friends having the following conversation.

Male Friend: I really hope it gets cold enough to snow this year. You know, last year I didn't get any skiing in at all.

Female Friend: I know what you mean. I finally went skiing up north where there was lots of snow.

Male Friend: That was a good idea.

Count backwards, out loud, by 3's from 1000.

(Silent pause for 20 seconds)

Stop counting.

For more practice in listening, the conversation will be repeated. Listen to the two friends having the following conversation.

Male Friend: I really hope it gets cold enough to snow this year. You know, last year I didn't get any skiing in at all.

Female Friend: I know what you mean. I finally went skiing up north where there was lots of snow.

Male Friend: That was a good idea.

Count backwards, out loud, by 3's from 1000.

(Silent pause for 20 seconds)

Stop counting.

We are now ready to begin the study in which you will learn about empathy. If you have any questions or concerns, discuss these with the experimenter now. If not, tell the experimenter that you are ready to begin.

Responding with empathy is a communication skill commonly used by "helpers," who are people who help others in time of need. In a helping relationship with a client, the helper responds with empathy to the client by communicating

the helper's understanding of the client's ideas and feelings. There is research evidence which indicates that clients who have helpers who respond with empathy are more likely to benefit from the helping relationship than are clients who have helpers who do not respond with empathy. Thus, responding with empathy is a valuable skill for helpers to know.

You will now listen to a portion of an interview in which the helper is responding with empathy to a client. Listen closely to what the helper and client say in the interview.

The interview is divided into four major interactions, which we will call "scenes." You will listen to each scene while it is being presented. Then silence will follow in which you will be asked to count backwards from some number for a specific period of time. After you have counted backwards for a certain length of time, you will be instructed to stop counting and to begin listening to the next scene.

Each of the four scenes belong to the same interview. Think of the scenes as flowing from one to the other. Scene 1 flows to scene 2, scene 2 flows to scene 3, and the third scene flows to the fourth. Once you have listened to the four scenes of the interview, the entire interview will be repeated.

Now take a deep breath, and relax.

(Silent pause for 5 seconds)

Scene 1

Listen to the following interview between a helper and a client. The client is a male. The first voice is the client's. Listen to the helper responding with empathy.

Client: You know...I get so mad at my parents. They're always bossing me around.

Helper: You're really angry at your parents for always telling you what to do.

Client: Yeah, really.

Count backwards, out loud, by 3's from 500.

(Silent pause for 20 seconds)

Stop counting.

Scene 2

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: They make me feel so uptight. I try to please them, but they put me down no matter what I do.

Helper: You feel really frustrated because even though you try to please them, they still criticize you.

Client: Yeah!

Count backwards, out loud, by 3's from 375.

(Silent pause for 20 seconds)

Stop counting.

Scene 3

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I've tried to talk to Mom and Dad about it but they never listen. They just get on my back even more.

Helper: Sounds like you're really discouraged because you can't reach your Mom and Dad. You want them to let up on you.

Client: Yeah, right.

Count backwards, out loud, by 3's from 250.

(Silent pause for 20 seconds)

Stop counting.

Scene 4

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I feel so stupid when I'm with them. They must think I'm still two years old.

Helper: You feel inadequate because you can't get through to them that you're not a child. You want them to treat you like an adult.

Client: Yeah. I'm sure glad you understand.

Count backwards, out loud, by 3's from 125.

(Silent pause for 20 seconds)

Stop counting.

To increase your understanding of empathy, the entire interview will now be repeated.

Scene 1

Listen to the following interview between a helper and a client. The client is a male. The first voice is the client's. Listen to the helper responding with empathy.

Client: You know...I get so mad at my parents. They're always bossing me around.

Helper: You're really angry at your parents for always telling you what to do.

Client: Yeah, really.

Count backwards, out loud, by 3's from 500.

(Silent pause for 20 seconds)

Stop counting.

Scene 2

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: They make me feel so uptight. I try to please them, but they put me down no matter what I do.

Helper: You feel really frustrated because even though you try to please them, they still criticize you.

Client: Yeah!

Count backwards, out loud, by 3's from 375.

(Silent pause for 20 seconds)

Stop counting

Scene 3

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I've tried to talk to Mom and Dad about it but they never listen. They just get on my back even more.

Helper: Sounds like you're really discouraged because you can't reach your Mom and Dad. You want them to let up on you.

Client: Yeah, right.

Count backwards, out loud, by 3's from 250.

(Silent pause for 20 seconds)

Stop counting.

Scene 4

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I feel so stupid when I'm with them. They must think I'm still two years old.

Helper: You feel inadequate because you can't get through to them that you're not a child. You want them to treat you like an adult.

Client: Yeah. I'm sure glad you understand.

Count backwards, out loud, by 3's from 125.

(Silent pause for 20 seconds)

Stop counting.

You will now listen to another interview between the helper and a client. The client is different from the one in the first interview, and the problem that the client brings to the interview is also differnt.

The procedure is the same as it was in the first interview. Take a deep breath and relax.

(Silent pause for 5 seconds)

Scene 1

Listen to the following interview between a helper and a client. The client is female. The first voice is the client's. Listen to the helper responding with empathy.

Client: John, my boyfriend, and I had a fight a week ago. Since our argument I've been feeling really awful, really down.

Helper: You've been feeling pretty depressed ever since your argument with John.

Client: Yeah, right.

Count backwards, out loud, by 3's from 400.

(Silent pause for 20 seconds)

Stop counting.

Scene 2

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I'm...I'm always thinking about him...thinking I may never see him again!

Helper: You're really worried that you may have lost him and that maybe it's all over between you. It sounds like you want to keep the relationship going.

Client: Yeah, exactly.

Count backwards, out loud, by 3's from 325.

(Silent pause for 20 seconds)

Stop counting.

Scene 3

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I was so dumb! I started the argument over some little thing. Now I've ruined everything!

Helper: You sound really angry at yourself for arguing with John. It seems like you wish you had handled things differently.

Client: Yeah, that's right.

Count backwards, out loud, by 3's from 250.

(Silent pause for 20 seconds)

Stop counting.

Scene 4

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I should have apologized. But it's so hard for me to admit to anyone that I've been wrong. I feel so foolish.

Helper: You feel really embarrassed when you have to admit to someone that you've made a mistake.

Client: Yeah, really embarrassed.

Count backwards, out loud, by 3's from 115.

(Silent pause for 20 seconds)

Stop counting.

To increase your understanding of empathy, the entire interview will now be repeated.

Scene 1

Listen to the following interview between a helper and a client. The client is female. The first voice is the client's. Listen to the helper responding with empathy.

Client: John, my boyfriend, and I had a fight a week ago. Since our argument I've been feeling really awful, really down.

Helper: You've been feeling pretty depressed ever since your argument with John.

Client: Yeah, right.

Count backwards, out loud, by 3's from 400.

(Silent pause for 20 seconds)

Stop counting.

Scene 2

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I'm...I'm always thinking about him...thinking I may never see him again!

Helper: You're really worried that you may have lost him and that maybe it's all over between you. It sounds like you want to keep the relationship going.

Client: Yeah, exactly.

Count backwards, out loud, by 3's from 325.

(Silent pause for 20 seconds)

Stop counting.

Scene 3

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I was so dumb! I started the argument over some little thing. Now I've ruined everything!

Helper: You sound really angry at yourself for arguing with John. It seems like you wish you had handled things differently.

Client: Yeah, that's right.

Count backwards, out loud, by 3's from 250.

(Silent pause for 20 seconds)

Stop counting.

Scene 4

Listen to the helper continuing to talk with the same client. The first voice is the client's. Listen to the helper responding with empathy.

Client: I should have apologized. But it's so hard for me to admit to anyone that I've been wrong. I feel so foolish.

Helper: You feel really embarrassed when you have to admit to someone that you've made a mistake.

Client: Yeah, really embarrassed.

Count backwards, out loud, by 3's from 115.

(Silent pause for 20 seconds)

Stop counting.

This is the end of the tape recording. Let the experimenter know you have finished the tape and get further instructions.

APPENDIX I

Script for the

No-Treatment Control Condition

Script for the No-Treatment Control Condition

We all communicate with other people. There are certain skills we can learn, called interpersonal communication skills, which will help us to communicate more effectively with others. Communication skills are taught to many different groups of people, such as counsellors, parents, teachers, business persons, and others in the general population who want to communicate more effectively in their everyday lives with family and friends.

The purpose of this study is to investigate how effective different methods are in teaching people an interpersonal communication skill.

In this study, you will learn about a specific communication skill called empathy. First you will listen to a tape recording describing what empathy is. After you have listened to the tape recording, you will be asked to use empathic communication in a variety of ways.

We are now ready to begin the study in which you will learn about empathy. If you have any questions or concerns, discuss these with the experimenter now. If not, tell the experimenter that you are ready to begin.

Responding with empathy is a communication skills commonly used by "helpers" who are people who help others in time of need. In a helping relationship with a client, the

helper responds with empathy to the client by communicating the helper's understanding of the client's ideas and feelings. There is research evidence which indicates that clients who have helpers who respond with empathy are more likely to benefit from the helping relationship than are clients who have helpers who do not respond with empathy. Thus, responding with empathy is a valuable skill for helpers to know.

This is the end of the tape recording. Let the experimenter know that you have finished the tape and get further instructions.

APPENDIX J

Table J-1

Empathy Ratings of Subject Responses

on the CCI: Raw Data

by Experimental Condition

Table J-1

Empathy Ratings of Subject Responses on the CCI: Raw Data by Experimental Condition

Experimental Condition			
CM[a]	OM	TC	C
2.94	2.88	2.22	1.56
1.97	2.37	2.09	1.72
1.66	2.34	2.31	1.69
2.53	1.59	2.75	1.56
2.13	1.69	2.75	1.97
2.34	1.97	2.75	1.69
2.34	2.47	2.47	1.75
2.13	3.00	2.50	1.47
2.44	1.91	2.22	1.78
1.94	2.72	2.69	1.69
2.25	2.16	2.28	1.47
2.16	2.38	2.19	1.69
2.19	2.28	2.28	1.63
2.16	2.28	2.47	1.66
2.50	2.28	2.19	1.59
1.88	2.25	1.63	1.38

NOTE: CCI = Carkhuff Communication Index
[a]CM = Covert Modelling Condition
OM = Overt modelling Condition
TC = Treatment Control Condition
C = No-treatment Control Condition

APPENDIX K

Table K-1

Empathy Ratings of Subject Responses to Video Stimulus Tape: Raw Data by Experimental Condition

Table K-1

Empathy Ratings of Subject Responses to Video Stimulus Tape: Raw Data by Experimental Condition

Experimental Condition			
CM[a]	OM	TC	C
2.88	3.00	2.13	1.08
2.83	3.00	3.04	-
1.25	3.08	3.21	1.04
3.13	1.08	2.50	1.08
2.92	1.71	3.00	1.42
3.17	2.88	2.67	1.13
2.71	2.96	3.17	1.46
2.42	3.42	3.29	1.04
2.79	2.33	2.54	1.42
1.33	3.04	2.79	1.08
2.83	2.50	2.00	1.04
2.83	2.58	2.83	1.00
2.42	2.71	2.83	1.25
2.63	1.25	2.88	1.00
2.58	2.88	3.13	1.00
1.83	2.96	1.19	1.10

[a]CM = Covert Modelling Condition
OM = Overt modelling Condition
TC = Treatment Control Condition
C = No-treatment Control Condition

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