THE COMPARATIVE EFFECTS OF IMPLOSIVE THERAPY AND SYSTEMATIC DESENSITIZATION UPON COUNSELOR TRAINEES' ANXIETY AND ABILITY TO COMMUNICATE EMOTIONS

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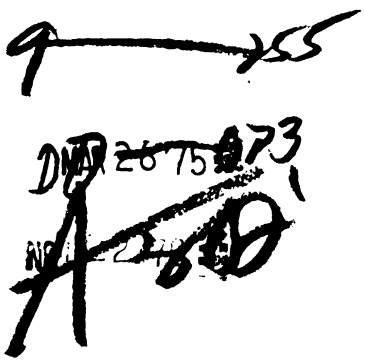

ABSTRACT

THE COMPARATIVE EFFECTS OF IMPLOSIVE THERAPY AND SYSTEMATIC DESENSITIZATION UPON COUNSELOR TRAINEES' ANXIETY AND ABILITY TO COMMUNICATE EMOTIONS

By

Sulaiman Tumeh Rihani

The primary purpose of this study was to test the effectiveness of two behavior therapy techniques in reducing or eliminating counselor's anxiety (the prior accidental conditioning to aversive words and emotions) when dealing with high affect problems, and to help the counselor to appropriately reflect and communicate feelings and emotions to a client without experiencing debilitating anxiety. The two techniques are implosive therapy and systematic desensitization, two learning theory derived methods of psychotherapy. They were also compared with a control treatment in which material about the understanding of anxiety was presented.

These methods have been traditionally used for therapeutic purposes with phobic patients. However, in this study they were used as training methods with counselor trainees who were assumed to be normal people. Much of the existing professional literature concerning those

two methods seems to indicate the effectiveness of both over other traditional therapy methods. However, when compared with each other, the literature indicates that when given a short-term therapy treatment, implosive therapy is more effective. It also indicates that implosive therapy is more efficient, in that treatment would be completed in much less time than that required for systematic desensitization.

It was hypothesized that each of the implosive therapy and systematic desensitization groups would score lower on any or all anxiety measures used in this study and they would score higher on the accuracy of reflecting and communicating client feelings than the control group. It was also hypothesized that the implosive therapy group would score lower on anxiety measures and higher on the measure of accuracy of reflecting and communicating client feelings than the systematic desensitization group.

The subjects for this study were fifty-eight Master's degree candidates in counseling at Michigan State University. They were all volunteers with a partial credit given toward their counseling practicum experience for participation in the investigation. However, for purposes of achieving the most accurate and effective experimental design of equal cells, only forty-two of them

were randomly selected, and actually considered in the final analysis. Twenty-one of the subjects were males and twenty-one were females.

All treatment sessions were pre-tape recorded with the same voice for all treatments. Each treatment consisted of seven sessions that averaged thirty minutes for each session. The implosive therapy group was given two introductory sessions to orient the group members to the nature of the implosive treatment and to train them in mental imagery. The other five sessions were devoted to producing the implosive condition through the use of anxiety producing scenes where one very detailed scene was introduced each session. These scenes were scheduled according to the intensity of anxiety they were designed to elicit. The systematic desensitization group was also given two introductory sessions with training in deep muscle relaxation and mental imagery. The other five sessions were devoted to introducing an eighteen-scene hierarchy developed by the investigator with the help of six doctoral candidates who were familiar with behavior therapy techniques. The control group treatment was also given two introductory sessions that emphasized the purpose of the study and the importance of understanding anxiety and emotions in order to control anxiety. The other five sessions were devoted to the meaning, components, experience, recognition, and treatment of anxiety in general.

A 2 x 3 factor design matrix was developed, with treatments crossed with sex and subjects nested within treatments. Multivariate and univariate analysis of variance was used in the analysis of the data.

Only the hypothesis that implosive therapy group would score higher than the control group on the Index of Counselor's Ability to Handle Client Feelings and Emotions was supported. The difference between these groups was significant at the .05 level of confidence. No significant differences at this level were found for any of the other hypotheses. Since no significant sex or sex by treatment interaction effects were found it was concluded that the effect on the supported hypothesis was due to the treatment condition.

The lack of significant effects on the unsupported hypotheses could be attributed to a number of possible contributing factors such as sampling, instrumentation, and treatments. These factors are discussed and their possible influence is pointed out.

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By

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At the end of my 21-year journey spent in pursuit of an education, I find it difficult to single out those events which are most meaningful and those people who were most influential in my life. To that extent, I wish to thank all those people who touched me during this journey.

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- To the memory of my mother,

- to my beloved father, who gave of his love what my mother after her sudden death was no longer able to give along with the love he always gave,

- to all my brothers and sisters I dedicate this dissertation.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Need

Observation of counselor trainees in their initial counseling experience brought the attention of the investigator to the fact that beginning counselors generally experience anxiety when confronted with a new and different experience. It was also noted that their anxiety is greater when they are confronted with more aggressive and highly emotional clients. This observation is supported by Monke (1971, p. 320), who stated that "the counselor trainee finds himself confronted with a new and different experience as he initiates his first counseling session. Lacking a backlog of previous counseling successes, facing a stranger who is asking for help, and trying to perform for an observing supervisor, contribute to the anxiety characteristic of many beginning counselors." The effect of this condition on the client was described by Traux and Carkhuff (1967) as the "principle of reciprocal affect." It states that in any interpersonal situation, the affect elicited in one person is in kind proportional to the affect being transmitted by the other. This principle was

supported by studies like Fiedler and Senior's (1952) who found evidence that the therapist's feelings toward the client significantly affect the therapeutic process. Mattson (1960) also found that someone who interacts with an anxious person will himself become more anxious. These findings lead to the assumption that effective counseling is done by counselors who are able to communicate client feelings and emotions with the minimum amount of anxiety.

This study was undertaken because methods are needed for training counselors to increase their tolerance of high affect situations and to become skillful in communicating the emotions of clients. If any of the training methods investigated in this study are found to be effective, it would be of great value to counselor educators who put emphasis on the fact that counselors should be able to understand, experience, reflect, and communicate client feelings without experiencing debilitating anxiety which might easily transfer to an already anxious client.

Purpose

Counselor trainees as well as other newly practicing counselors are sometimes, if not often, very anxious when dealing with highly emotional clients, or when dealing with the kinds of problems involving very high affect feelings on the part of the client. It has been

observed that they not only have difficulty working with these problems, but also are unable to recognize and communicate these emotions by reflecting the descriptions of these feelings to their cleints. It is assumed here that this difficulty stems from learning experiences through accidental conditioning. The individual in the American culture, as well as other cultures, has learned that certain emotions and feelings should not be expressed or declared during interactions with others. When describing these emotions with words or phrases, these words or phrases become aversive stimuli that carry the same aversive connotations of the undesirable emotions. The result of this could be that an individual avoids using such words, even when needed, to communicate certain feelings and emotions. Avoiding words and phrases of a high affect nature is, to the individual, one way of reducing or eliminating the anxiety which is associated with these words and phrases. This conditioning process of emotional word meaning is explained in more detail in the following section titled "emotional learning."

The purpose of this study is to test the effectiveness of two behavior therapy techniques in reducing or eliminating counselors' anxiety (the prior accidental conditioning to aversive words and emotions) when dealing with high affect problems, and to help the counselor

appropriately reflect and communicate feelings and emotions to the client without experiencing debilitating anxiety. The two techniques are implosive therapy and systematic desensitization, two learning theory-derived methods of psychotherapy. They will also be compared with a control treatment in which material about the understanding of anxiety is presented.

Although these methods are traditionally used for therapeutic purposes in the treatment of phobic patients, they are used in this study as training methods with counselor trainees who are assumed to be normal people. In other words, the subjects of this study have not demonstrated any behaviors that would lead to their being classified as phobics or neurotics.

Hypotheses

The main purpose of this study is to determine whether there is a difference between the three treatment variables of this study, namely: implosive therapy, systematic desensitization, and the control group, in helping counselor trainees reduce anxiety that is associated with the treatment of highly emotional clients, and to become more able to respond appropriately and reflect client feelings reported during interviews.

For this main purpose and for the purpose of statistical analysis, null hypotheses were assumed that

stated that there would be no differences between treatments in reducing anxiety of counselor trainees when dealing with highly emotional and affective problems, or in increasing the ability of counselor trainees to become more able to respond appropriately, reflect, and communicate the feelings and emotions of their clients. However, the expectations of the experimenter, based on research reviewed in the professional literature, are stated in the following hypotheses:

1. It is hypothesized that both the implosive therapy and systematic desensitization groups will become significantly less anxious than the control treatment group when dealing with problems of high affect nature, as measured by a Behavioral Checklist for Performance Anxiety, the Self-Reported Fear Index, and a Counselor's Anxiety Index.
2. It is hypothesized that both the implosive therapy and systematic desensitization groups will become significantly better able to reflect appropriately and communicate the feelings and emotions of clients than a control group as measured by the Index of Counselor's Ability to Handle Clients Feelings and Emotions as Rated by Cleints.
3. Since this study is a short-term therapy treatment in the form of training and based on evidence to be cited in the review of the literature

chapter, it is hypothesized that the implosive therapy group will significantly demonstrate less anxiety and be better able to reflect appropriately and communicate client feelings and emotions than the systematic desensitization group as measured by all of the above mentioned instruments. This hypothesis is based on previous research indicating that when a short-term treatment is used, implosive therapy was found to be more efficient. The study of Barrett (1969, p. 591) found that "implosive therapy was more efficient in that treatment was completed in 45 per cent of the time required for systematic desensitization therapy."

The difference between efficiency and effectiveness should be noted here. Efficiency is used to indicate the amount of time required to achieve a given level of effectiveness (performance) by one method of treatment as compared to another method of treatment. However, effectiveness is the amount of change or level of performance achieved within a given period of time by one treatment method as compared to another.

4. The only possible interaction in this study is that of sex of subjects by treatment variable, which will be investigated before any statement

is made about the treatments' main effects. However, the null hypothesis of no significant sex effect or sex by treatment interaction effect is hypothesized.

Theory

Emotional Learning

The principle of classical conditioning of Pavlov is the basic theory assumed to be responsible for acquiring an aversive connotation to originally neutral words and the anxiety associated with these words. This process was called by Staats (1968) "primary classical conditioning of emotional word meaning." His theory is that "emotions are responses." As such they should follow the principle of classical conditioning. If an emotion inducing stimulus (UCS) is paired with a neutral stimulus (CS), the neutral stimulus will come to elicit the emotional response (Staats, 1968). In this context it should be noted that "language stimuli occur contiguously with emotion-causing stimuli in our learning experiences, and this gives certain important properties to language. That is, in our language-learning experience, certain words are systematically paired with a particular emotional stimuli (Staats, et al., 1968, p. 13)." This means that an emotional stimulus could be considered as an unconditioned stimulus (UCS) that elicits emotional

responses. If a word or phrase is paired with such a stimulus, the word becomes a conditioned stimulus and also elicits the same emotional response. In a study of first order conditioning of meaning and the parallel conditioning of a GSR conducted by Staats and associates, it was found that "when subjects had the experience in which a word was systematically paired with aversive environmental stimuli, the word gained a negative evaluative meaning as measured by the two indices used in the study. That is, the word came to elicit one of the easily measured emotional responses elicited by the aversive stimuli, the galvanic skin response, and the subjects later on also rated the word as having an unpleasant affective meaning. These results substantiated the theory that a word may gain its meaning according to the principles of classical conditioning (Staats, et al., 1962, p. 166)." It was also found that "the more strongly the individual subject was conditioned to make an emotional physiological response to the word the more strongly he felt about and rated the meaning of the word (Staats, et al., 1968, p. 21)."

These same findings were verified in another study that replicated the Staats study. Using the same type of design, Maltzman, et al., (1965) obtained the same findings in every respect. These findings support the theory that emotional word meaning consists of responses that are

classically conditioned to a word through the systematic pairing of the word with particular aspects of the environment in the natural language experience we receive (Staats, 1968).

According to the principle of higher order conditioning "a stimulus not only acquires the power to elicit a response, but once having done so the stimulus can then 'pass' the response on to yet a new stimulus. Thus, a third stimulus can come to elicit a response without ever having to be paired with the original environmental stimulus that elicits the response (Staats, et al., 1968, p. 23)." Once these words acquire the emotional meaning associated with them, especially when these emotional meanings are of the negative type, these words become aversive stimuli and cause the individual to avoid using them. Aversive stimuli are undesirable. They generate anxiety. Thus, high affect words generate anxiety which people attempt to reduce by avoidance or escape mechanisms when confronted with these stimuli.

For counselor trainees, words of this nature that have acquired a negative emotional meaning become aversive stimuli they tend to escape from or avoid. This avoidance of high affect words to describe clients' feelings and emoitons would tend to limit the counselor's effectiveness in dealing with certain kinds of problems. Even though they might be able to discriminate the feelings

of a client, those counselors are handicapped in reflecting such feelings by avoiding the use of appropriate words to describe them.

Both Stampfl, who developed the implosive therapy, technique, and Wolpe, who developed systematic desensitization or psychotherapy by reciprocal inhibition, agree on the principle of learned symptoms in that the patient's symptoms are learned or conditioned habits. "A symptom is an avoidant behavior which, occurring in the context of the anxiety-producing stimulus, tends to reduce the strength of that stimulus. By so doing, the symptom is reinforced and fixated in the behavioral repertory of the individual (London, 1964, p. 97)." The theory that both use as the basis for neurotic symptoms is similar to the two-factor theory of Mowrer (1960) which states that "an organism can be made to respond emotionally to an originally 'neutral' stimulus by pairing the 'neutral stimulus with a noxious stimulus' (Stampfl & Levis, 1967a, p. 497)." This principle originated from Pavlov's classical conditioning and agrees with the above mentioned findings of Staats and Maltzman in the conditioning of emotional word meaning.

In spite of the agreement on the principle of acquisition of the neurotic behavior and its symptoms, Stampfl and Wolpe have followed different principles in the elimination of these symptoms. Stampfl, building on the laboratory and experimental research of people such as Solomon,

Kamin, and Waynne (1953); Solomon and Wynne (1954); Miller (1951); Black (1958); Denny, Koons, and Mason (1959); Lowenfeld, Rubenfeld, and Guthrie (1956); and Wall and Guthrie (1959), adopted the principle of extinction as the basic principle for the reduction of anxiety and elimination of the symptoms associated with it. He indicated that "anxiety (learned fear) drives the neurotic's symptoms; if anxiety could be extinguished, the symptoms would be eliminated. He hypothesized that extinction of the anxiety would take place when the conditioned stimuli which elicit anxiety were presented in the absence of primary reinforcement (Hogan, 1966, p. 25)."

Wolpe, on the other hand, adopted another principle of learning theory, that is, the principle of reciprocal inhibition in which the reduction of anxiety associated with a noxious stimulus is achieved by presenting to the patient a response which is incompatible with the original anxiety producing stimulus. Responses such as deep muscle relaxation, sexual responses, and assertive responses are commonly used for this purpose.

Learning Theory Applied to Behavior Change

The theoretical structure of this study is derived from behavioral or learning theory-based approaches to therapy. These approaches assume that maladaptive behavior is an inappropriate behavior which has been learned

and is not symptomatic of underlying dynamics as is the case in the psychodynamic approaches to therapy. As such, "maladaptive behavior can be modified by the therapeutic application of learning principles (Miller, 1970, p. 4)."

There are many behavioral therapy techniques. These include social modeling, role playing, conditioning by the use of the reinforcement of successive approximations, systematic desensitization or psychotherapy by reciprocal inhibition, implosive therapy, and flooding. Systematic desensitization of Wolpe, and implosive therapy of Stampfl, were selected for this investigation as two treatment modes for reducing the anxiety of counselor trainees when dealing with highly emotional and affective problems. They were also selected as two training modes to help counselor trainees not only to reduce their anxiety, but to be more effective in reflecting and communicating their cleints' emotions and feelings by the use of high affect words and phrases.

A brief description of each of the two selected approaches is necessary at this point.

Systematic Desensitization

Based on the learning theory principle of counter-conditioning and the use of responses like sex, relaxation, and assertive responses as incompatible responses to anxiety, Wolpe (1958), developed a new method in behavior

therapy. This method was called psychotherapy by reciprocal inhibition or systematic desensitization. Cooke (1968), in a study concerned with the evaluation of the efficacy of the components of reciprocal inhibition psychotherapy, attempted to break down this method into its components. He suggested that the reciprocal inhibition procedure may be broken down into the following distinct components: relaxation training, construction of the anxiety hierarchy, the use of relaxation as an anxiety inhibitor, and systematic desensitization.

Miller (1970), on the other hand, suggested that systematic desensitization or psychotherapy by reciprocal inhibition in its standard form has three main components. These are: (1) training the subject in deep muscular relaxation through the use of relaxation instructions, (2) construction of a hierarchy of anxiety producing situations, and (3) the systematic presentation of the graded anxiety producing scenes to the relaxed subject through imagery until anxiety is no longer present. In standard individual desnesitization, the therapist asks the subject to imagine for a brief interval the hierarchy item that is the least anxiety producing. If the subject indicates anxiety by raising a finger, the therapist immediately instructs him to replace the anxiety producing scene with a neutral one and to relax for several minutes. If, on the other hand, no anxiety is indicated, the item is

followed in five seconds by thirty to forty-five seconds of relaxation. In the next few steps the presentation interval is lengthened to thirty seconds or sometimes even more. The presentation of the item followed by thirty seconds of relaxation is repeated several times after the subject feels no anxiety. The reason for this repetition is to insure that this item is no longer an anxiety producer. Then, the next item on the hierarchy is introduced in the same fashion until all of the items in the hierarchy are completed. Anxiety, according to Wolpe and Lazarus (1966), Bandura (1969), and Franks (1969) is replaced by a feeling of relaxation, as an incompatible response to anxiety, in the actual situation through counter-conditioning. The laboratory studies of these researchers and others support the clinical evidence that demonstrate the effectiveness of this method in reducing anxiety in real-life situations.

A number of studies have suggested that the success of systematic desensitization does not depend on the traditional approach as described above with a live therapist. These studies (Franks, 1969; Donner and Guerney, 1969; Kahn and Baker, 1968; Miller, 1970) suggest that automated self desensitization, by the use of tape recorded therapy sessions, is as effective as traditional desensitization with a live therapist.

Implosive Therapy

While Wolpe (1958) stresses the theoretical basis of the unlearning of emotional responses by means of counter-conditioning, Mowrer (1960) states that extinction and counter-conditioning may involve the same processes. On the other hand, Stampfl (1966) refers to extinction alone as the theoretical basis of the unlearning of emotional responses. Stampfl (1966) indicates that if one proceeds on the basis of an animal model of emotional conditioning and extinction, then certain hypotheses are immediately available in the use of learning principles as they apply to psychotherapy. In the laboratory the experimenter directly presents the feared stimuli to his animals in order to facilitate extinction. He confines his animals to a restricted situation where escape is not possible, and forces them to experience the fear of the original conditioned stimulus. His answer to the question of how could one follow this model with human patients is that rather than wait for the patient to produce his repressed hostile, aggressive, and sexual material through free association, dream analysis or other means, the implosive therapist presents an approximation of what the therapist thinks is repressed. His approximation of the repressed material is presented repeatedly, and as vividly and clearly as possible in numerous variations. The goal is to obtain an intense emotional reaction from the

patient. Stampfl not only introduces the principle of extinction to the particular stimulus, but also introduces the principle of generalization to other stimuli or conditions. He suggests that since no primary reinforcement follows the implosive presentations, the emotional reaction should disappear in accordance with the principle of generalization of extinction. Symptomatic behavior based on the emotional state also should disappear. The therapist's role in this procedure is to present feared stimuli to the patient in the same manner as the laboratory experimenter does with his animals. In addition, Levis (1966) suggests that the most simple and expedient therapeutic procedure would be to prevent a subject's avoidance response and directly force him to experience the total conditioned stimulus complex in the absence of primary reinforcement.

Both Stampfl (1961a) and Levis (1966) agree that the fundamental hypothesis adopted in this therapy technique is that the necessary condition for the extinction of anxiety is to represent, reinstate, or symbolically reproduce the stimuli (cues) to which the anxiety response is conditioned in the absence of primary reinforcement. It should also be noted that unlike other behavioral therapy techniques which adhere to the learning theory orientation, implosive therapy incorporates into

its model some of the general concepts of psychodynamic personality theory (Stampfl, 1961; Stampfl, 1967; Levis, 1966; Stampfl and Levis, 1967a, 1967b, 1968).

The theoretical model adopted in implosive therapy is a learning theory model that distinguishes between two different response categories which are considered learned by the patient. The first involves the conditioning of fear to specific stimuli or stimulus compounds; the second deals with attempts of the organism to reduce or control that fear. The first category involving the negative affective response is assumed to be elicited by stimuli previously considered "neutral" which have acquired their fear-producing potential as a result of having closely preceded the onset of a painful state or experience, such as external injury or organic deprivation (Stampfl and Levis, 1967). Symptoms and defense mechanisms comprise the second response category. They are interpreted as conditioned avoidance responses designed to remove or reduce the presence of the anxiety-provoking stimuli. This behavior is usually reinforced by the reduction of anxiety when a successful attempt occurs (Stampfl and Levis, 1967, 1968).

The goal of the implosive therapist is to reproduce in the absence of any punishment, deprivation, or physical pain an adequate approximation of the sights, sounds and factual experiences originally present in

the primary conditioning event or the original trauma. This goal is achieved by means of verbal instruction to the patient to imagine the various aversive stimuli hypothesized to be present in the original trauma (Stampfl and Levis, 1968; Hogan, 1963, 1968; Hogan and Kirchner, 1967; Rachman, 1969).

Rachman (1969), on the other hand, has pointed out that we are not yet in a position to state that the content of the fear-evoking instructions need be related to the abnormal behavior which the therapist is attempting to reduce or eliminate. It is, for example, perfectly possible that the arousal of a high level of anxiety may be the key factor involved--even if the material used to provide such anxiety is entirely irrelevant to the target behavior. Although the material and cues suggested by the therapist may differ from the actual conditioning events, considerable generalization of extinction across the different cues is expected to take place.

A summary of the treatment procedure is given in the following seven steps as they were described by Stampfl and Levis (1967, p. 26):

1. The therapist attempts to identify the stimuli related to the phobic object. Such an analysis should incorporate symptom-contingent cues as well as additional hypothesized cues believed to be motivating the symptomatology.

2. The patient is given training in visualizing essentially "neutral" nonthreatening scenes in imagery.

3. The patient is asked to imagine scenes which incorporate cues directly related to the phobic situation. For example, in the case of acrophobia, the following sequence of scenes might be presented: (a) a tall building is described which the patient sees himself visualizing from a distance ; (b) he walks closer and closer toward the building until he is standing in front of it; (c) he enters into the building and climbs the stairs to the roof of the building, periodically looking down as he climbs; (d) he walks over to the edge of the room and looks down, seeing the street below. Each step of the way is described by the therapist with great clarity and in considerable detail.

4. With each set of fearful scenes introduced, the patient is urged not to avoid these cues while they are being presented and, indeed, to experience as much anxiety as possible. He is also instructed to attend to the sensory manifestations of the anxiety that he experiences, since the feedback from the anxiety state itself also can function as a cue.

5. Each scene is repeated until some anxiety reduction has occurred.

6. After repeated exposure to the symptom-contingent cues, the therapist progressively introduces additional associative cues activated by the phobic situation, as well as the clinically hypothesized cues thought to be associated with the phobic object. For example, if fear of bodily injury is hypothesized in the acrophobic case, scenes might be presented in which the patient is asked to visualize himself jumping off the tall building. A detailed description of the patient falling, of the ground getting closer and closer, and of his hitting the ground is described. The impact of the fall, the feeling of bones breaking, the pouring out of blood, and other bodily injury cues are included.

7. The therapist trains the patient to work through the scenes by himself so that additional repetitions in the form of a homework assignment can be given outside the therapy session.

It seems appropriate at this point to make a distinction between implosive therapy and flooding. Implosive

therapy is a process of introducing to the patient all stimuli and cues associated with the phobic object on the imagery level, where the patient is instructed to imagine the scenes as vividly as possible. On the other hand, flooding, which could be called an (in-vivo) implosive therapy, involves the actual presentation of the phobic object to the client. It involves a live confrontation between the patient and his phobic object or situation. He is instructed by the therapist to confront the phobic object without any means for escape. Flooding is similar to in-vivo desensitization with the difference being that in in-vivo desensitization the subject is gradually introduced to and confronted by the phobic object. Neither in-vivo desensitization nor flooding are used in this study. The treatment methods used are implosive therapy and systematic desensitization as they have been developed for use with mental imagery.

Summary

In this chapter, the need and purpose of the study have been discussed where emphasis has been put on the investigation of the comparative effectiveness of three different treatments: implosive therapy, systematic desensitization, and a control treatment where subjects were presented with material about the understanding of anxiety. The contribution of this study to counselor education and counselor training has been noted.

The hypotheses and the expectations of the experimenter have been stated so that both implosive therapy and systeamtic desensitization are predicted to be more effective than the control treatment in reducing counselor anxiety and in improving the counselor's ability to handle, communicate and reflect his cleint's feelings and high affect emotions. It is also predicted that implosive therapy will be more effective than systematic desensitization.

The theory behind the process of acquiring an aversive emotional meaning associated with words has also been discussed and explained in terms of the principle of classical conditioning of Pavlov. It was noted that the principle of classical conditioning is the basic theory assumed responsible for acquiring an aversive connotation to originally neutral words and the anxiety associated with these words. This process was called by Staats (1968) "primary classical conditioning of emotional word meaning."

In the last section of this chapter, the theoretical principles of both implosive therapy and systematic desensitization were discussed. The learning theory principle of extinction is the basis for the implosive therapy method, while the learning theory principle of counter-conditioning is the basis for systematic desensitization. The therapy process of both methods has been

described to give the reader an idea of how these therapy methods are actually carried out.

Finally, the distinction between implosive therapy and flooding has been noted and briefly discussed to remove any possiblilty of a misinterpretation of treatment procedures.

CHAPTER II

REVIEW OF LITERATURE

The Efficacy of Systematic Desensitization

One of the most widely used methods of behavior therapy is one that was first developed by Wolpe (1958). This method is called reciprocal inhibition or systematic desensitization. Kanfer and Phillips (1970) reported that dissatisfaction with psychoanalytic methods of treating neurotic anxiety led Wolpe to search for more effective techniques in the experimental work of Pavlov, Jones, Watson and Masserman on "experimental neuroses" in animals. During the period of 1947 and 1948, Wolpe carried out a series of experiments that produced persistent "neurotic" behavior in cats by confining the animals in small cages and delivering shocks preceded by a conditioned stimulus. As part of the response to this procedure, the cats would no longer eat in the cage. Wolpe found that he could eliminate these reactions and restore normal cage behaviors by feeding the cats in places that were distinctly dissimilar from the original experimental cage. As the animal appeared less

anxious and behaved more efficiently, Wolpe gradually approximated the original traumatic situation more and more closely, until the cage itself could be used without behavioral disruption.

Wolpe's technique with neurotic patients is similar to this procedure. Two essential ingredients are contained in this method. First is the gradual presentation or exposure of the patient to a weaker form of the same conditioned stimulus that is presumed to have originally been conditioned to anxiety through pairing or accidental association with some aversive primary unconditioned stimulus. This feature characterizes the desensitization aspect of this method. The second ingredient is that a response is introduced as an antagonistic or incompatible response to anxiety. This feature is called reciprocal inhibition by Wolpe. Wolpe's position is represented in a technical sense in the following statement: "If a response inhibitory of anxiety can be made to occur in the presence of anxiety-evoking stimuli it will weaken the bond between these stimuli and the anxiety (Wolpe, 1958; Wolpe and Lazarus, 1966)."

This relatively new method of psychotherapy attracted the attention of many therapists and researchers. This attention was concentrated in large part on testing the efficacy of the method as compared to other

traditionally employed methods of psychotherapy. Another part of the effort has been devoted to testing the relative importance of the different components and variables of this method.

A number of research studies lending themselves to the exploration of this technique and its efficacy have been reported and reviewed extensively by Bandura (1969), Kanfer and Phillips (1970), Mayer and Chesser (1970), and London (1964). Lang and Lazovik (1963), in a study aiming to evaluate the effectiveness of systematic desensitization and to determine whether the incompatible responses of the reciprocal inhibition technique alone would produce changes in anxiety, treated twenty-four snake phobics. The effectiveness of desensitization was shown by the significant difference in number of subjects who held or touched a snake during the avoidance test period and six months after treatment. In another study, Lang, Lazovik and Reynolds (1965) repeated the same design except that they included a "pseudotherapy" group that were asked to relax during the therapy sessions and when their hierarchy items were discussed. The results were in support of desensitization therapy since neither the controls nor the pseudotherapy subjects showed any significant reduction in phobic behavior. Paul (1966) conducted one of the best controlled studies in the area of psychotherapy when he investigated the

effectiveness of systematic desensitization in the treatment of college students who had fears of speaking in public. Systematic desensitization was compared with insight therapy and was carried out by experienced psychotherapists. Each subject received five therapeutic sessions. The results of Paul's study came to support and independently verify Lang and Lazovik's findings. It was found that the desensitization group made greater progress in reduction of their anxiety, as indicated by subjective reports, physiological measures (pulse rate and sweat index), and ratings of their behavior in a class of public speaking. Paul and Shannon (1966) extended this study by administering a nine-session group desensitization treatment to subjects selected from a waiting list, who, as part of the group of the previous study, had shown no reduction in anxiety. It was found that group desensitization produced reduction in self-reported anxiety with respect to public speaking and other interpersonal situations, and also produced increases in extroversion. Additional comparisons involving the same measures showed group desensitization to be equally effective as individual desensitization, but superior to the insight therapy and placebo treatments.

In another study comparing the effectiveness of systematic desensitization with conventional group psychotherapy in the treatment of diverse forms of phobic

disorder, Lazarus (1961) showed similar outcomes. Phobic behavior was completely eliminated in 13 of the 18 subjects treated with systematic desensitization, whereas 2 out of 17 subjects in conventional psychotherapy successfully modified their phobic responses. After the completion of the study, the 15 subjects who were unable to modify their phobic responses by means of conventional psychotherapy were treated by group desensitization for ten sessions. Ten of those 15 subjects successfully modified their phobic responses. Gelder and Marks (1968) also found that a group of phobic patients who had not responded to 18 months of group psychotherapy showed significant reductions in phobic behavior after a few months of desensitization treatment.

The effects of systematic desensitization on academic performance were also explored by Mann and Rosenthal (1969) with elementary school children. Children who were treated with individual or group systematic desensitization showed significant changes in test anxiety and reading achievement scores as compared to a non-treated control group.

These are but a few of many research studies in this area of behavior therapy that came to support the positive efficacy of systematic desensitization. The relative effectiveness has been reported to be very high, ranging from 55 to 90 per cent in some cases. For example,

in a study by Bandura, Blanchard, and Ritter (1969), it was reported that 90 per cent of the subjects who received desensitization treatment showed increases in approach behavior that exceeded the performances of their matched non-treated controls. Wolpe (1958) and Lazarus (1962, 1963) reported that between 75 and 90 per cent of the clients treated with systematic desensitization were markedly improved or completely recovered. Hain, Butcher, and Stevenson (1966) reported that desensitization was effective in 78 per cent of the cases and that improvements often occurred in areas of occupational, sexual and social behavior beyond the specifically treated phobias and anxieties.

In a recent study conducted by Monke (1971), the effect of systematic desensitization on the training of counselors was investigated. The purpose of this study was to determine whether the technique of systematic desensitization would reduce the initial anxiety experienced by the beginning counselor trainee before and during his counseling session. Thirty counselor trainees in a National Defense Education Act Elementary Counseling and Guidance Institute were randomly assigned to either an experimental or control group. The treatment consisted of two sessions of relaxation and five of desensitization. The criterion measures employed included (a) physiological measures using heart rate and skin resistance, (b) tape

evaluations, and (c) self-reports. Analyses of the data revealed significantly less self-reported anxiety in the experimental group. No differences were found in heart rate, skin resistance, and tape evaluation measures.

A recent study of desensitization conducted by Dua (1972) concerned itself with three massing procedures of group desensitization. "The experimental prediction was that massing over a shorter treatment period would involve more continual and intensive exposure to the avoided stimuli and would result in a more significant decrement of fear. Pre- and post-treatment measures of subjects were taken on direct behavioral tasks and fear rating scales. Improvement on direct behavioral tasks was treated as the most important criterion in treatment. As predicted, subjects exposed to 12-hour and 5-day massing improved more significantly than subjects in 15-day massing (Dua, 1972, p. 125)."

The Efficacy of Implosive Therapy

Since the development of implosive therapy technique by Stampfl in 1961, a considerable amount of attention has been given to testing the effectiveness of this new behavioral therapy technique. The successful results of animal experimentation of Polin (1959) and Page and Hall (1953) have probably been one of the

encouraging factors in the exploration of the efficacy of this new therapy method which depends on the principle of extinction as its theoretical basis.

One of the first clinical applications of implosive therapy was carried out by Malleson (1959) before the development of the method by Stampfl. He treated a case of acute examination panic by prolonged or massive exposure to subjectively threatening stimuli.

Meyer (1966) based on the findings and arguments of Lomont (1965) which indicated that preventing or delaying the escape from a feared conditioned stimulus hastens the extinction of that response and suggests that such extinction may not be due to learning a new response incompatible with the original avoidance response, successfully treated two obsessional rituals with a form of implosive therapy treatment which he called "reality testing." His treatment aimed at creating stress for the patients by imagining anxiety arousing scenes and by actually having them engage in behaviors that they had been avoiding. This treatment was based on his assumption that "if the obsessional is persuaded or forced to remain in feared situations and prevented from carrying out the rituals, he may discover that the feared consequences no longer take place. Such modification of expectations should result in the cessation of ritualistic behavior (Meyer, 1966, p. 275)."

Hogan (1966) conducted a study with twenty-six experimental subjects treated with implosive therapy and twenty-four control subjects treated with more traditional psychotherapy methods. Subjects in the two groups were equated for degree of disturbance as measured by the MMPI, and the patients were similar with respect to age, education, level of intellectual functioning, length of treatment and prior hospitalization variables. The implosive treatment group significantly improved their scores on five scales of the MMPI (F, Hs, D, Hy, and Sc) by the end of the experiment. A one year follow-up of all subjects revealed that eighteen of the twenty-six experimental subjects and eight controls had been released from the hospital while the others were still hospitalized and considered failures.

In another study, Hogan and Kirchner (1967) demonstrated the value of a one-session implosive therapy treatment in reducing a fear of rats in a group of non-psychiatric volunteer subjects. At the end of treatment fourteen out of twenty-one experimental subjects were able to pick up the feared rat. Only two of the control subjects were able to do so. The same researchers also carried out a second study (Hogan and Kirchner, 1968) on non-psychiatric volunteer subjects who were afraid of snakes. Thirty subjects were divided into an implosive therapy group and two control groups (eclectic-verbal and

bibliotherapy). Using a behavioral approach test of therapeutic success in which the subject had to pick up the snake after only forty-five minutes of treatment, they found that seven out of ten experimental subjects were able to pick up the snake. However, only one of the subjects in the bibliotherapy group and four of the eclectic-verbal group did so. The fifteen subjects who failed to pick up the snake at the end of treatment were treated with one session of implosive therapy. Ten of them were able to pick up the snake and were considered successful. The results of this experiment are consistent with another study reported by Kirchner and Hogan (1966) in which volunteer subjects were given one implosive therapy session through the medium of a tape recording in a group setting. The control subjects listened to music for a similar period of time. The results of this study indicated that sixteen of the twenty experimental subjects and only five of the controls were able to pick up the feared animal (rat) on the post-treatment avoidance test.

Levis and Carrera (1967) investigated the effectiveness of implosive therapy with outpatients. This study was designed as an exploratory study to determine the feasibility and value of more effective evaluations of the new behavioral therapy method. Forty patients were divided

into an experimental and three control groups. Only the implosive therapy group showed a consistent trend to shift away from psychopathology as measured by MMPI scores.

Along with these well controlled experimental studies, there are reports of successful treatment of individual cases by use of implosive therapy. For example, Fazio (1970) reported the successful outcomes of a female patient who suffered for about fifteen years from fear of being injected. Twelve months after her last treatment session, the patient reported having received and observed blood tests without becoming either anxious or upset. In another study, however, Fazio (1970) reported less encouraging outcomes. In his effort to evaluate reality-testing and supportive aspects of implosive therapy independent of the anxiety-eliciting scenes, college females with a fear of specific insects were administered three sessions of one of three tape recorded treatments. In two double-blind experiments, subjects treated with implosive therapy were not found to improve significantly as measured by reported overt behavioral tests. In both studies, the reality-supportive discussions were associated with significantly greater reductions in phobic behaviors than implosive therapy.

Comparative Efficacy of Systematic Desensitization and Implosive Therapy

As the above review of the literature has shown, many research studies have been conducted for the purpose of testing the effectiveness of systematic desensitization and implosive therapy either alone or in comparison with some other conventional methods of therapy. On the other hand, and because of the newness of both methods, very little research has been done for the purpose of testing the effectiveness of implosive therapy as compared with systematic desensitization. The comparative effectiveness of the two methods is the point of emphasis in this section.

Willis and Edwards (1969) studied the effectiveness of the two methods in the treatment of mice phobia where systematic desensitization was found to be more effective than implosive therapy. In a study where three spider phobic subjects treated by a flooding procedure were compared with earlier findings of desensitization studies, Rachman (1965) found that subjects who received desensitization under relaxation were seen to be superior to those of flooding and control groups.

Barrett (1969) found that "Implosive therapy was more efficient in that the treatment was completed in 45 per cent of the time required for systematic desensitization." "SDT and IT, however, did not differ in

effectiveness (Barrett, 1969, p. 587)." In another study conducted to compare systematic desensitization with prolonged high intensity stimulation (flooding), it was found that both groups showed significantly more change than the control group (DeMoor, 1970).

In a study conducted by Mealiea and Nawas in 1971, it was found that "systematic desensitization differed significantly from implosive therapy and all control procedures at post-treatment, showing the greatest decrease in snake phobic behavior (Mealiea and Nawas, 1971, p. 85)." The results of the above-mentioned study of Rachman (1965) "were contrasted with those of Wolpin and Raines (1966) who successfully treated two Snake-Phobic patients by repeated presentation of the top fear-stimulus hierarchy item only (Wilson, 1967, p. 138)."

Boulougouris, Marks, and Marset, (1971) compared flooding with systematic desensitization as a fear-reducer in sixteen phobic patients who were treated in a cross-over design with six sessions of each procedure. Flooding was significantly superior to desensitization on clinical and physiological measures, and improvement was maintained over twelve months follow-up. Flooding, which is an in-vivo form of implosive therapy, is, as Boulougouris et al., believes, a promising technique for the reduction of fear in anxious phobic patients. The above-mentioned studies are reviewed here mainly because of their direct emphasis

on the comparison of the effectiveness and/or efficiency of both implosive therapy or flooding and systematic desensitization or psychotherapy by reciprocal inhibition by Wolpe.

The two methods have been used successfully by means of automated procedures using either computer or audio-tape facilities. Lang (1969) has described the development of a device for automated desensitization using computer store hierarchy and relaxation instructions. The results of his study to test this procedure indicated that the automated computer device is about as effective as the live therapist in producing fear reduction in clients.

Another study also indicates the therapist is dispensable. Automated group desensitization for test anxiety is described in a study by Donner and Guerney (1969). Forty-two test anxious female college students were divided into three groups on the basis of previous semester grade point averages. The three groups consisted of a waiting list control, a therapist administered group desensitization, and group desensitization through the use of a tape recorded set of instructions. A common hierarchy of twenty-nine items was used for each desensitization group. Each step was presented six times; first, the subjects visualized it for five seconds, and then relaxed for five seconds. This was repeated. Next, subjects

visualized each scene for ten seconds and then relaxed for ten seconds. This was repeated. Last, twenty-second intervals were used for visualization and relaxation, and this was repeated. Both groups manifested significant improvement in grade point average after treatment.

Kahn and Baker (1968) conducted a study on subjects with various phobias. Subjects were assigned to two treatment groups: A "conventional desensitization" group which was treated by the therapist in the laboratory, and a "do-it-yourself" group which carried out the desensitization process at home without any therapist contact. The subjects of the second group were given a "do-it-yourself" desensitization kit to take home which contained a manual and a long-playing record. The record gave a twenty-minute course in deep muscle relaxation training and a recorded framework for a desensitization session. According to the subject's reported success, which was used in this study as a dependent variable, it was found that there was no significant difference between the two groups, although the "do-it-yourself" group was considered to have improved more than the "conventional desensitization" group which had considerably more therapist contact.

Hogan and Kirchner (1967) empirically demonstrated the value of a short-term implosive treatment technique in changing the behavior of subjects with fears of rats.

After a one-session implosive treatment in reducing a fear of rats in non-psychiatric volunteer subjects, fourteen out of twenty-one experimental subjects succeeded in picking up the formerly anxiety-provoking rat. However, only two of the control subjects were able to do this. In addition, six of the seven experimental subjects who were unable to pick up the rat succeeded in opening the cage of the feared animal. In another study conducted on subjects with a fear of rats, Kirchner and Hogan (1966) reduced the therapist-client relationship variable by taping treatment materials which were presented to implosive and control group subjects. After a one-hour session, the tape-treated implosive group did significantly better than the taped-control treated group as determined by the criterion of picking up the feared animal (rat).

Summary

It has been shown that the advocates of both systematic desensitization and implosive therapy techniques claim highly significant results. These results indicate the effectiveness of both methods in the treatment of neurotic anxiety. Studies supporting these claims of success and effectiveness have been reviewed for both therapy methods. Many of these studies have indicated

effectiveness and superiority of each of the two approaches as compared to other conventional therapy methods or to no treatment at all.

Other studies, on the other hand, put the emphasis on the comparative effectiveness of both implosive therapy and systematic desensitization relative to each other. Emphasis has also been put on implosive therapy as being an effective short-term treatment method, suggesting that it is more efficient than systematic desensitization. At least one study (Barrett, 1969) indicated this point and pointed to the fact that implosive therapy was more efficient in that treatment was completed in 45 per cent of the time required for systematic desensitization. Their effectiveness, however, did not differ. This point leads to the direction that the current study has taken.

It is assumed that since this study is a short-term treatment it is reasonable to hypothesize that the more efficient method will be more effective when both are given a short and limited treatment time. The recent study of Dua (1972) supports this hypothesis, namely the effectiveness of massing of treatment on all three treatment variables. It was found that subjects exposed to twelve-hour and five-day massing treatments improved more significantly than subjects in fifteen-day massing treatment even though the number of sessions and the amount of time were the same

for all treatment groups. However, the current study has been massed on an eleven-day massing treatment basis because of the relatively large number of therapy sessions.

Studies were also reviewed to indicate the effectiveness of the use of tape recorded treatments when compared to the use of live therapists. Other studies indicated the use of automated means of therapy such as computers and video tapes.

CHAPTER III

METHODOLOGY

Sample

The sample for this study consisted of fifty-eight candidates for the M.A. degree who were enrolled in the counselor training program in the Spring of 1972 at Michigan State University. The purpose of the study was explained to all eighty-four students enrolled in this program who were beginning their first counseling practicum. All students in the program were asked to volunteer to participate in the study. They were also offered a partial credit toward their practicum training if they participated fully in the study. This full participation required each subject to attend seven treatment sessions and two evaluation sessions during a two week period. Fifty-eight subjects volunteered for full participation and were included in the study.

The average age of the sample was 24.8 years with a range of 22-49 years. Twenty-four of the subjects were males and 34 were females. For the purpose of having a complete balanced design with equal cells, only 42 subjects with 21 males and 21 females were included in the

final analysis. This procedure will be explained in a following section of this chapter. However, it should be noted that only 51 subjects were able to meet the full participation criterion.

One other aspect that needs to be taken into consideration is that all subjects of this study have participated in two other studies during the 1971-1972 year conducted by two doctoral candidates (Scherman, 1972 and Stone, 1972). These two studies are described in the abstracts of their theses which are shown in Appendices A and B. The learning which could have occurred during these prior investigations may have influenced the outcomes of the present study. Therefore, this fact must be taken into consideration when generalizations are made to other populations of counselor trainees.

Experimental Procedures

On the basis of their sex, all 58 subjects were divided into 2 groups which consisted of 24 males and 34 females. For the purpose of having equal cells for a complete balanced design, 10 female subjects were randomly selected and were designated as extra subjects. In other words, they were assigned to treatments and given credit for participation but were not included in the final analysis of the data even though they were asked to go through the 2 evaluation sessions.

The rest of the subjects, 24 males and 24 females, were randomly assigned to the 3 different treatments, making a complete balanced design with 8 subjects in each cell. This design gives 8 males and 8 females in each of 3 treatment groups. The 10 extra females, however, were randomly assigned to the treatments. Three of them were assigned to a desensitization group, 3 to a control group and 4 to an implosive group.

The total mortality rate for the experiment was seven subjects. Three dropped out before the treatment began as they decided they lacked the time to participate. Two of these subjects were from the implosive group and one was from the control group. Two other subjects, one from the desensitization group and one from the control group, dropped out during the middle of the experiment for unknown reasons. One subject from the desensitization group was dropped from the study by the investigator as the subject was mistakingly exposed to the sixth session of implosive treatment instead of desensitization. The last subject, a female from the implosive therapy group, dropped out of the experiment during the evaluation sessions. She refused to complete the evaluation because of high anxiety experienced during the first part of the evaluation.

A total of 51 subjects completed all aspects of the experiment with 7 subjects in each of 6 cells and 3 extra subjects in each treatment group. However, only the 42 subjects with 21 males and 21 females are included in the final analysis of the data. The treatment procedures, observers, clients, and evaluation procedures will be described in the following sections of this chapter.

Treatment Procedures

As has already been noted, the purpose of this study was to investigate the comparative effectiveness of implosive therapy, systematic desensitization and information-giving as modes of counselor training. The specific training objectives were: 1) the reduction of counselor anxiety when dealing with highly emotional problems and 2) enabling counselors to become better able to understand, reflect and communicate the feelings and emotions of clients.

For this purpose the subjects of the study were randomly assigned to three different treatments. These were: implosive therapy treatment, systematic desensitization treatment, and information-giving treatment or control group. The total time for each treatment was three and a half hours which was divided into seven treatment sessions. Each session averaged thirty minutes.

Subjects were required to attend these seven sessions during a period of eleven days according to individual time schedules. However, subjects could only take one treatment session on any day. This procedure kept the same sequence of sessions for all subjects in any particular group. The twelfth day was designated as an evaluation day which every subject was required to attend.

The settings for the treatment procedures were in interviewing rooms (8 x 10 feet) located in the counseling laboratory of the College of Education at Michigan State University. Each room was equipped with one way mirror-windows for external observation purposes. Each subject was provided a lounge-type chair which permitted him to assume a semi-reclining position with his feet off the floor. All subjects received the treatment sessions on an individual basis via audio tape recordings, with each subject in a separate room. Earphones connected the subjects to a reel-to-reel tape recorder which was operated by the investigator in a room external to the rooms where subjects received their treatment sessions. The earphones also served to shut out much of the stimuli from the counseling laboratory which could have distracted the subjects.

Subjects in the implosive therapy and systematic desensitization treatment groups were asked to imagine anxiety producing scenes according to instructions given

to them by means of audio recordings. These scenes were developed by the investigator along with the assistance of six doctoral candidates in counseling and a professor of Counselor Education who was familiar with the theory and technology of both treatment methods. These individuals generated a number of hypothetical scenes that appeared to have the potential to arouse the anxiety of counselor trainees. These scenes were recorded on audio tape by a professor of Counselor Education.

Some of the scenes were randomly selected to be tested in terms of the degrees of anxiety or arousal they would elicit in the counselor trainees. Three experimental tape recorded scenes were presented to four different individuals who were not a part of the experiment. All four individuals reported that they experienced anxiety of varying degrees. Three of them showed very high rates during the period in which they were asked to listen and imagine the taped scenes while attached to an audio GSR equipment made by Lafayette Instrument Company, Model (77030) Audio GSR. The fourth individual who had previously been desensitized to high affect situations showed lower response rate on the GSR but indicated that the scenes did arouse some degree of anxiety. These four individuals, along with the doctoral candidates in counseling and the professor of Counselor Education, were asked for suggestions to improve the presentation of the taped

scenes or for modifying any of the different elements of the scenes. All suggestions were carefully followed in the final taping of all treatment sessions that were presented to the subjects of the study.

Description of Treatment No. 1
(Implosive Therapy)

Five anxiety producing scenes were chosen for this treatment. The scenes depicted hypothetical situations where highly emotional counselor-client encounters were occurring. They are as follows:

a. A depressed, poor, ugly-looking man with no motives to continue living because of poverty.
b. An alcoholic man who came to a counselor to talk about his problems, and then verbally attacked the counselor for not understanding how it feels to be drunk.
c. A drug addict who came to a counselor to talk about his good and bad trips while on drugs.
d. A young girl, fifteen years old, who accused a counselor of breaking confidence. She accused him of telling her parents that she was having sexual intercourse with her boyfriend.
e. A young man, eighteen years old, who had just been told by his doctor that he would die of cancer in about six months. He came to the counselor begging for help and support.

The treatment sessions for the implosive therapy group were conducted in the following manner.

Sessions No. 1 and 2

The first two sessions of this treatment were devoted to orienting the subjects to the study and its purposes. The narrator of the tapes stressed that full cooperation and regular attendance were important factors in the success of the experiment. They were also urged not to discuss their experiences during the experiment with one another. The two main purposes of the study were explained in detail to the subjects. They were told that they would participate in a treatment called implosive therapy. Implosive therapy was explained to them and they were told what to expect during the treatment sessions. In the last ten minutes of each of the first two sessions, subjects were asked to imagine several neutral scenes for the purpose of training them in mental imagery techniques.

The subjects were also urged to experience the feelings as vividly as possible that were associated with the scenes presented to them. They were asked to avoid pushing away their feelings no matter how frightening the scenes became. To assist them in imagining the scenes and to shut out distracting stimuli, they were asked during each session to keep their eyes closed.

Session No. 3

The actual implosive treatment started in the third session. Subjects were reminded of the purposes of the study and were urged again to experience the scenes as vividly as possible. In this particular session the scene of a depressed, poor, ugly man with no motives for living was presented repeatedly. A more and more vivid and detailed description of his appearance and of his affect behavior was given as the session developed.

An example of this scene is: The client tells the counselor, "Have you ever been poor, Mr. Counselor? Have you? Have you! Do you know what it means to be living like me with no hope for anything and nothing to look forward to? Oh, you stupid counselor, don't tell me that you know what I feel," etc. Meanwhile, the subject was given time after almost every segment of the scene to experience his feelings and to verbally respond to the client's emotions by reflecting the client's feelings.

Session No. 4

Again, the subjects were reminded of the purpose of the study. Then the scene of an alcoholic man in his sixties was introduced to them. The man was brought by a police officer to the counselor's office. An example of this session is: "Imagine that this drunk, this alcoholic, looks up at you and says, 'I don't need your stupid

advice. Don't give me any bull-shit. I know what I am doing and I like it. 'I don't need your help. . . I am just using you. . .' Think of what you would say to him, tell him your response. Don't hold back. . . examine your feelings. Describe your feelings. . . How this client makes you feel. Describe your feelings. . .," etc.

The subjects were again urged to experience their feelings as they imagined these scenes. They were also asked to verbally respond to and reflect the client's expressed feelings and emotions.

Session No. 5

In this session the scene of a male drug addict was introduced and the subjects were asked to imagine different and detailed descriptions of their encounter with this type of client. They were asked to imagine themselves being on duty in a drug counseling center and having a user come into their offices in a hyperactive state.

An example of this encounter would be: "Keep picturing yourself with this wild man. . . he is hyperactive, roaming around and won't sit down. He hasn't said anything to you. You ask him to sit down, he won't do it . . . He is roaming around the room tearing your books and throwing them around your office. He is tearing up your office. . . He says, 'You son of a bitch, you did this to me. . . God damn it, do something real to help me'. . . etc." The counselor is then urged to experience

his feelings and to try to reflect his client's feelings back to him. He is urged to describe his own feelings as this client is behaving in the described fashion.

Session No. 6

In this session a scene was presented to the subjects of a fifteen year old girl who came to a counselor's office accusing him of breaking confidence. She accused the counselor of telling her parents about her sexual affairs with her boyfriend. She is threatening to ruin his reputation and sue him for breaking confidentiality. An example of this encounter would be: "She is a fifteen year old girl. She walks right into the front of your desk and leans over and spits right in your face. 'You told them! You told them! You said this is going to be confidential and you told them! You lied, you bastard, you told them!' Imagine yourself with the spit running down on your face with this angry, hostile girl standing right in front of you in a rage. Put yourself in that scene. Describe your feelings right now, etc." Once again the subjects were urged to experience their feelings as they imagined the scenes and to reflect the client's feelings back to her while showing understanding and empathy.

Session No. 7

This was the last session of the treatment. The scene involved an eighteen year old boy who was dying of cancer and was presented repeatedly as in all other sessions. The subjects were urged to imagine the scenes vividly and to experience their feelings without trying to push them away. An example of this encounter would be: "'The doctor told me I should come and see you. Maybe you can help me. I only have six months to live. You see, look in my mouth. I got cancer. You see.' You can see the cancer filling his mouth. You can see the yellow pussy places in his mouth. Imagine that. Picture that vividly. Now reflect how you think this client feels with cancer of the mouth knowing that he only has six months to live. Imagine youself taking this young man into your arms and holding him. Hold him gently. Now imagine as you are holding him he suddenly gasps, and he stops breathing. He gets very heavy. You can't hold him. He falls onto the floor. You get scared and you are shaking because you know now that he is dead. He died in your arms. . . etc." In this session as well as all other sessions of this treatment, the scenes were gradually increased in intensity and were repeated three or more times to insure that they had elicited anxiety and to provide opportunities for extinction to occur at the end of each session.

Subjects were directed to open their eyes and to look around their environment. This procedure was followed to demonstrate to subjects that they could experience anxiety and that nothing harmful would happen to them.

Description of Treatment No. 2
(Systematic Desensitization)

The treatment procedures for this group involved the same amount of time and number of sessions as for the implosive therapy group. These sessions were also pre-taped by the same narrator as in Treatment 1. All physical arrangements and audio tape procedures were the same for all subjects.

Eighteen scenes were selected for this treatment and were rank ordered in a hierarchy that was assumed to be one in which the anxiety level of the scenes progressively increased. The hierarchy of scenes is as follows:

1. You are driving to your practicum setting and you are thinking about counseling someone for the first time who you were told gets emotionally upset during counseling and screams and cries a great deal.
2. You are waiting in your office to see the client who screams and cries during counseling sessions.
3. You are sitting in your office and hear someone in the reception area screaming and moaning--"Oh

God, Oh God--Someone please help me."

4. A client is walking slowly to your office door--crying and saying, "Oh I hope someone can help me. I am lost if they can't help me."
5. The client is seated in your office. He is weeping and is in a great deal of misery. He is crying very hard and you don't know how to get him to begin talking.
6. A client says that he has been telling you about his problems all along and you don't seem to help him much. He says you are confusing him jumping from one point to another.
7. A girl you have been counseling this morning is angry at you. She says that you don't seem to understand what she is saying to you and that you are really incompetent and unable to help her.
8. A student is telling you about his problems with his parents at home and accuses you of being cold. He states that you don't know what he feels. You are not able to really experience his feelings. He challenges you to tell him what you think he really feels.
9. A young girl in your office tells you that you really hate people. She says, "I don't think that you should work with people. You are even far away from being a human being. I don't like you. I hate to even see you anymore."

10. A widow that you are trying to understand says to you, "Oh shit, don't give me that crap of yours. You don't know what it means to be without a husband after you've had one for ten years. Don't shit me with all your theories and ideals. Save those for yourself, stupid!"
11. A client walks in your office and sits down and stares. He never takes his eyes off of you. You try to get him to talk. He won't and just stares. Tell him how this makes you feel.
12. The client you have been seeing for a long time is frustrated and tells you that he is pissed off. You haven't been doing anything good for him. He says, "Don't give me that empathy look. Shit--you can't understand how I feel. Tell me, go ahead and tell me what I feel, you idiot counselor. You shouldn't be working with people. You should be working with animals instead."
13. A girl that was referred to you by the principal is threatening to kill herself because nobody understands her. Everybody is against her and nobody likes her. She says, "You haven't been of any help to me either, you ass hole." She spits on you. Then she states, "I am going to kill myself. I am going to do it here in front

of you to show you that you don't care just like all the others. . . etc." And she is spitting on you while saying that you are a piece of shit and a miserable creep. . . etc.

14. A client is trying to seduce you by saying, "I love you. You are the first person to really know me and I want to be with you forever."
15. A client says, "You disgust me. You think you are something special and important being a counselor and thinking you know it all. You are one of those liberal intellectuals. That is all you are. A mother fucker who thinks he knows about feelings."
16. "You just said you can understand how it is to be poor and not loved. Have you ever been poor and unloved like me?" The client is hitting on your desk and getting angry.
17. A client is asking you, "Please put your arms around me. Hold me. Tell me I am worth something. Tell me that I am not just a stupid, emotional person."
18. A client says to you, "I know you mother fuckers--you get paid to listen to all this human misery and you love it. You get your kicks out of this. I am nothing but a God-damn object to satisfy your shitty little ego."

The treatment sessions for the systematic desensitization group were conducted in the following fashion:

Sessions No. 1 and 2

The first two sessions were devoted to explaining to the subjects the process of systematic desensitization and the need for deep muscle relaxation. Again, as in the first two sessions of the implosive group, the importance of full cooperation and regular attendance was emphasized as well as the purposes of the experiment. The remainder of these two sessions was devoted to training the subjects in deep muscle relaxation. Imagery training, using neutral scenes, was also provided. The process of deep muscle relaxation training was implemented by instructing the subjects to tense and relax the various muscles of their bodies in the order that appears in the Muscle Group Hierarchy for Deep Muscle Relaxation (See Appendix C). However, some pertinent phrases were repeatedly used in this training procedure. These phrases are listed in Appendix D.

Session No. 3

In this session, as well as the rest of the treatment sessions for this group, the subjects were instructed to relax during the first 5-10 minutes of each session. They were also reminded of the importance of their full

cooperation and regular attendance as well as the purposes of the study. Then, items 1, 2 and 3 of the hierarchy were introduced repeatedly during 10-15 second presentations which were alternated with periods of relaxation of approximately the same amount of time.

Session No. 4

Hierarchy scenes, numbers 2, 3, 4 and 5 were introduced in this session. Scenes 2 and 3 were carried over from session No. 3. This process of scene overlap was followed in all of the remaining sessions. One or two scenes from previous sessions were always introduced at the beginning of each session before introducing new scenes of the hierarchy.

Session No. 5

Scenes numbered 5, 6, 7, 8 and 9 were introduced in this session.

Session No. 6

Scenes numbered 9, 10, 11, 12, 13 and 14 were presented.

Session No. 7

Scenes number 14, 15, 16, 17 and 18 of the hierarchy were presented in the final treatment session.

It should be noted that in all desensitization sessions, the subjects were urged to experience the feelings associated with the scenes they were asked to imagine. They were also urged to reflect and communicate these feelings aloud according to the procedures followed with subjects of the implosive group.

Description of Treatment No. 3
(Control Group)

This group was called the anxiety learning treatment group. Subjects in this group were told by means of audio tape recordings that they would be learning about anxiety in general; its meaning, components, signs of anxiety, and the treatment of anxiety. They were told that it was expected that the learning experience would help them to handle and reduce their own anxiety and emotions. This treatment group attended the same number of sessions and participated the same amount of time as the other groups involved in the experiment. The treatment session for the control group were conducted in the following manner:

Sessions No. 1 and 2

In the first two session the same information about the purposes of the study, the need for full cooperation and regular attendance at the sessions was explained to the subjects as in the other treatment groups. They were

told that their learning experience would help them to become better able to work with highly emotional clients with a minimum amount of anxiety. They were told also that they would become better able to understand, reflect and communicate the feelings and emotions of clients. Last, the difference between fear and anxiety, the meaning of emotion, and a survey of different types of emotions were discussed.

Session No. 3

This session was devoted to a discussion of the meaning of anxiety and fear.

Session No. 4

The components of anxiety were discussed in this session.

Session No. 5

A discussion of the experience of anxiety was presented.

Session No. 6

A discussion of the signs of anxiety and the means for recognizing anxious behavior was given during this session.

Session No. 7

The treatment of anxiety was explained and discussed in this session.

The material for the discussions provided for this treatment group was chosen from different chapters and sections of books written about the nature of anxiety (Eysenck and Rachman, 1965; Lesse, 1970; Fischer, 1970; Horney, 1964; Kurzweil, 1968). Sections of these references were chosen for their relevance to the particular topics discussed during the sessions of this treatment group.

Evaluation Procedure

At the end of eleven days of treatment, all subjects who attended seven sessions of their assigned treatment participated in two evaluation sessions. Each of these sessions was seven minutes long. About ten minutes before these two sessions each subject was instructed that he was to see two emotionally disturbed clients for seven minutes each. He was given a cassette tape for use in an already installed cassette tape recorder and instructed to tape record his sessions.

The instructions that were given to all subjects were very limited which gave the subject the task of using his own method in initiating the session with the clients. The instructions were as followed: "There are two actual

clients with emotional problems waiting in rooms A and C. They would like to talk to somebody about receiving help. You are asked to go in and talk to each of them for seven minutes. There are no limits to what you do or how you do it. As you finish with each client, you will hear a knock on the window indicating the end of the session. At this point you will excuse yourself and go to a waiting room and respond to a self-report fear index before you go to the second session. This should take you only one or two minutes. When you are finished with this, go to see the second client. You will do the same again as you finish."

During these evaluation sessions four measures were taken. Two of the measures were taken by observers who were observing the subjects from behind the one way mirror-windows. One other measure was taken by the subjects as a self reported fear index. The fourth measure was taken by the clients with a report of their perception of how the counselor handled their feelings and emotions. All evaluation sessions were tape-recorded on cassette tapes for the purpose of obtaining another measure concerning the number of appropriate and inappropriate affect words and phrases reflected and communicated by the counselor. These measures will be described later in this chapter.

Observers

Four observers were used to observe and rate subjects on two measures during the evaluation sessions. The measures were: (1) Behavioral Checklist for Performance Anxiety (see Appendix E) and (2) Counselor's Fear Index as Rated by Observers (see Appendix F). All observers were doctoral candidates in counseling and trained in behavioral counseling theory and techniques. A one-hour training session for observers was held with the investigator. Observers were also able to agree to the meaning of the statements or behaviors to be rated. However, no interrater reliability was calculated before the evaluation took place.

Since the total values of all four ratings were of interest for an analysis of the data, the overall reliability of the average ratings was computed for the purpose of establishing the reliability of these two measures as dependent variables. This reliability of the average rating was computed using the following formula based on the simple analysis of variance of the rating of all subjects in all groups (Ebel, 1951).

$$r = \frac{Ms_{s:T} - Ms_{sR:T}}{Ms_{s:T}}$$

Where r = the reliability of the overall ratings.

$Ms_{s:T}$ = Mean square among subjects nested within treatments.

$Ms_{sR:T}$ = Mean square interaction of raters x subjects nested within treatments. This formula is the same as the well known formula of the definition of reliability which is:

$$r = \frac{\text{Variance of true score}}{\text{Variance of observed score}}$$

The same procedure of overall reliability was followed for the client ratings and for counselor self reported fear index ratings in both evaluation sessions. The four observers, however, were divided into two groups. Two observed each subject with client A and two others observed each subject with client C.

Clients

Although the subjects were told that they would be seeing actual clients who would display highly emotional behavior during the evaluation sessions, the clients for this study consisted of two role-playing males. Both of them were hired to play one role in a consistent manner for all subjects. The roles were assigned by the investigator. Both clients were senior students from the Theatre Department of Michigan State University. One day before the evaluation took place, each met with the investigator for an hour to discuss and practice the role which he was to play. Client A was given a rough description

of a homosexual aggressive client (see Appendix J) and was instructed to use high affect words and phrases and to give the counselor trainees opportunities to respond to his behavior. Client C was given a rough description of a depressed client (see Appendix K) who was concerned over problems with his marriage life. He was also given the same instructions as client A.

Each of the clients was asked to rate the counselor on an index called "The Index of Counselor's Ability to Handle Client Feelings and Emotions as Rated by the Client" (see Appendix H). This rating was done immediately at the end of each session.

Measures

Three different measures were used to quantify the anxiety of Subjects. These measures were:

1. Behavioral Checklist for Performance Anxiety (see Appendix E). This instrument was developed by Paul (1966) and was modified for purposes of this investigation. With this instrument the frequency of a list of body movements and changes is checked as they occur and are observed by observers. The sum of the frequencies is the value of interest in the final analysis.
2. Counselor's Fear Index as Rated by Observers (see Appendix F). This instrument was developed by the

investigator in the form of four different statements indicating degrees of anxiety as rated on a five point scale and as judged by observers. The sum of the total ratings on the four statements is the value of interest in the final analysis.

3. Counselor's Self Reported Fear Index (see Appendix G). This instrument was also developed by the investigator in the form of four different statements indicating degrees of anxiety as reported by experimental and control subjects and rated on a five point scale. Again, the sum of the total ratings on the four statements is the value of interest in the final analysis.

Two other instruments were developed by the author for the purpose of measuring the ability of the counselors to handle appropriately the emotions and feelings of clients in terms of understanding and communicating these emotions and feelings to clients. Those two measures were:

1. The Index of Counselor's Ability to Handle Client Feelings and Emotions as Rated by the Client (see Appendix H). This instrument was developed in the form of six statements which indicated the degree of counselor understanding, reflection and communication of the emotions and feelings of the client as reported by the client himself. A five point scale was used in which the sum of the six

statement ratings is the value of interest in the final analysis.

2. The ratio of appropriate affect words and phrases to all affect words and phrases. The original design of the study called for two independent observers to listen to audio tapes made by the subjects during the evaluation sessions. The observers were to tabulate the number of appropriate and inappropriate affect words and phrases used by the subjects while interacting with the coached clients. A tabulating form (see Appendix I) was to be used for this purpose.

Unfortunately, at the end of the evaluation sessions, it was learned that almost 50 per cent of the evaluation tapes were very poorly recorded due to interfering noise coming through the ventilation fans in the ceilings of the rooms used in the experiment. Some of these tapes were taken to the Instructional Media Center at Michigan State University for the purpose of attempting to filter out the noise and make it possible for observers to hear what was taped. This effort failed to achieve any satisfactory results. This measure was then abandoned after all efforts to obtain usable data were unsuccessful.

Design

The design for the study was Campbell and Stanleys "Post Test Only, Control Group Design" with two independent variables as can be seen in Figure 1. These variables are:

a. Treatment variable: It includes three levels of treatments. These are: Implosive Therapy, Systematic Desensitization and a control group or (anxiety learning group).

b. Subjects variable: It includes two levels divided on the basis of sex. Males and females are completely crossed with the treatment variable. It is a completely balanced design with equal cells. Each cell has seven subjects officially included in the study and the final analysis.

Subjects' Variable (Sex)	Treatment Variable		
	IT	SDT	Cont.
M	xxxx xxx	xxxx xxx	xxxx xxx
F	xxxx xxx	xxxx xxx	xxxx xxx

Figure 1.--A schematic representation of the design of the study.

Testable Hypotheses

1. It was hypothesized that both implosive therapy and systematic desensitization will result in significantly lower anxiety in the experimental groups than in a control group as measured by the Behavioral Checklist for Performance Anxiety, in a Self-reported Fear Index, and Counselor's Anxiety Index as Rated by Observers.

   This hypothesis is a two part hypothesis. These are mathematically:

$$T_1 - T_3$$

$$T_2 - T_3$$

2. It was hypothesized that both the implosive therapy and systematic desensitization will result in significantly higher ability to reflect appropriately and communicate highly emotional and affect feelings of clients in the experimental groups than in a control group as measured by the Index of Counselors Ability to Handle Client Feelings and Emotions as Rated by Clients. This hypothesis is also a two part hypothesis. These are in mathematical form:

$$T_1 - T_3$$

$$T_2 - T_3$$

3. It was hypothesized that the implosive therapy group will have significantly lower anxiety scores and significantly higher scores on the ability to reflect appropriately and communicate client feelings and emotions as measured by all of the above mentioned measures. This hypothesis is also a two part hypothesis with each part testing a different but related aspect of counselor training. These parts in mathematical form are:

$T_1 - T_2$ (for anxiety reduction)

$T_1 - T_2$ (for counselor ability to handle affect feelings)

4. The only possible interaction in this study is that of sex of subjects X treatment variable. However, it was hypothesized that there will be no significant sex or sex by treatment interaction effects.

Data Analysis

The data were analyzed by using the multivariate analysis of variance for the three measures of anxiety. However, simple two-way analysis of variance was used for the dependent variable concerning the ability of the counselors to handle the feelings of clients as rated by the clients. Both procedures used a two factor design with 2 x 3 levels. These were sex factors with two levels and

a treatment factor with three levels. Thus, six dependent variables were considered during the initial design of this study. Only four of them, however, are considered in the final analysis of the data. Two dependent variables were not studied because of the problems encountered while tape recording the evaluation session.

The four dependent variables considered in the analysis are:

a. Behavioral Checklist for Performance Anxiety (Appendix E)

b. Counselor's Fear Index as Rated by Observers (Appendix F)

c. Counselor's Self-Reported Fear Index (Appendix G)

d. The Index of Counselor's Ability to Handle Client Feelings and Emotions as Rated by the Client (Appendix H).

The reliability of the average ratings for each measure was computed and is reported in Chapter IV.

For purposes of testing for significant differences between treatment groups, three separate (t) tests at alpha level of .0167 or $\frac{.05}{3}$ were used. This procedure was used because it is slightly more powerful than Tukey's test for treatment differences with .05 alpha level. These tests were employed for the following contrasts using alpha level of .05 in the final analysis of the data and based on the findings of significant tests.

1. Implosive--Control
2. Implosive--Desensitization
3. Desensitization--Control

α = .05 level of significance is used for all tests conducted during the analysis phase of this study.

Summary

In this chapter a detailed description of the research methodology followed in this study has been reported. The sample, observers and clients used in the study were described. The treatment procedures in terms of the kind of material presented and the technique for presenting the treatments were also described. This was followed with a detailed description of the post-treatment evaluation procedures and the measures used as dependent variables. Finally, the design of the study, the testable hypotheses, and the method of data analysis were described.

CHAPTER IV

ANALYSIS OF RESULTS

The analysis will focus on three main aspects of the study. First, the reliability of the average ratings is reported. Two pairs of observers were used to rate subjects on two anxiety measures. Subjects rated themselves on a self-reported fear index on the two evaluation sessions. Finally, the two clients rated subjects in each evaluation session. Since the interest of the investigator is in the total of each of these ratings instead of the individual ratings, the reliability of the average ratings is computed based on the analysis of variance of the ratings on each dependent variable. Second, the analysis of the treatment's main effects are reported as they are relevant to the hypotheses in Chapter III. Third, the effect of sex variable and the sex by treatment interaction effect are reported. They are also reported with emphasis on the two main objectives of the study as two separate matters, namely the reduction of anxiety and the accuracy of reflecting client feelings and emotions of a high affect nature by the subjects of the investigation.

Multivariate analysis of variance and univariate analysis of variance with planned comparisons were both used in the analysis of the data. These statistical analyses were calculated at the Michigan State University Computer Center on the Control Data 3600 Computer System using a program developed by Finn. Multivariate analysis of variance was used to prevent the alpha level of significance, the probability of rejecting the null hypothesis when it is true, from being inflated when many dependent variables which are not independent of one another are used. This procedure tends to reduce the probability of achieving significant effects by chance. Multivariate analysis not only prevents this chance significance, but also provides an indication of the combined effect of the independent variables on all dependent variables as one unit.

Multivariate analysis tables are provided. This includes a multivariate probability level which refers to all the dependent variables taken as a group. Following this, univariate probability levels are reported, which are the alpha levels of analysis of variance tests on the dependent variables taken separately.

Since all hypotheses in this study are directional hypotheses, multivariate analysis and univariate analysis of variance based on a planned comparison of the main effects of the treatments was used. This test is equivalent

to that of a multiple one tailed (t) test. As has been noted in Chapter III the alpha level of .0167 is used. However, because the planned comparison based on the F test is a two tailed test the alpha level of .0167 was multiplied by 2. This gives the value of .0334 as the alpha level of significance for this analysis. However, the alpha level of (.05) is the level of significance for all statistical tests as has been noted in Chapter III and all results will be considered significant at the .05 level.

The Reliability for the Average Ratings of the Dependent Variables

Since the interest of the investigator was in the total ratings of each measure as rated by the observers, the clients or the subjects themselves, the reliability for the average ratings based on the analysis of variance of the individual ratings was the most appropriate for this purpose. This estimate of the reliability in this manner is more accurate and more appropriate than that of interrater reliability when the total ratings on each dependent variable is of interest rather than the individual ratings.

Since the reliability of the average ratings for all dependent variables has been computed along with the

rest of the data, it seems appropriate to report it here as a part of the preliminary data needed in the analysis. These data are reported in Table 4.1.

The reliability results for the average ratings of all four raters on the Behavior Checklist measure, the Counselor's Fear Index, and the Counselor's Self-Reported Fear Index are moderately high. They are .6695, .7535, and .6952 respectively. However, the reliability of the average ratings on the Index of the Ability of the Counselor to Handle Feelings and Emotions is relatively low (.4162). There could be more than one explanation for this low reliability. It is possible that the short period of training of the clients who rated the subjects was a contributing factor. It is also possible that because they were trained separately and independent of each other, they tended to rate the counselors with little agreement as to the meaning of each of the statements included in that measure. Another possible reason could be that each client was rating the counselor on the basis of the kind of problem he presented. Since each client presented a completely different problem, this may have tended to affect their ratings of the same counselor in such a way that relatively low reliability of the average ratings was obtained.

Table 4.1.--Reliability of the average ratings for all dependent variables.

	Dependent Variable	Sources of Variation	Degrees of Freedom	Mean Square	Reliability of Average Ratings (r)
1.	Behavior Checklist (A.M.1)	S(T)	48	10.4895	.6695
		S X R(T)	144	3.4667	
2.	Counselor's Fear Index (A.M.2)	S(T)	48	14.2640	.7535
		S X R(T)	144	3.5157	
3.	Self-Reported Fear Index (A.M.3)	S(T)	48	14.4852	.6952
		S X R(T)	48	4.4142	
4.	Counselor's Index of ability to Handle feelings (E.M.1)	S(T)	48	30.0012	.4164
		S X R(T)	48	17.5085	

Note: S(T) denotes subject within treatment
S X R(T) denotes subject by rater within treatment
A.M.1 denotes the Behavior Checklist for Performance Anxiety
A.M.2 denotes the Counselor's Fear Index as Rated by Observers
A.M.3 denotes the Self-reported Fear Index
E.M.1 denotes the Index of Counselor's Ability to Handle Client Emotions and Feelings as Rated by Clients.

It also seems appropriate to report in this section the correlation between all of the dependent variables. These data are shown in the table of the Dependent Variables Correlation Matrix, 4.2.

Table 4.2.--Dependent variables correlation matrix (within cells).

	Dependent Variables			
	1 A.M.1	2 A.M.2	3 A.M.3	4 E.M.1
A.M.1	1.000			
A.M.2	0.310	1.000		
A.M.3	0.073	0.4111	1.000	
E.M.1	-0.341	-0.554	-0.398	1.000

Note: A.M.1 Denotes the Behavior Checklist for Performance Anxiety
A.M.2 Denotes the Counselor's Fear Index as Rated by Observers
A.M.3 Denotes the Self-reported Fear Index
E.M.1 Denotes the Index of Counselor's Ability to Handle Client Emotions and Feelings as Rated by Clients.

In Table 4.2, it is clear that even though the correlation between the three anxiety measures is low, it is in a positive direction. This means that all measures are related and provide some degree of confidence that all raters, at least in part, are measuring the same responses. Table 4.2 does show a very low correlation, however, between the Behavior Checklist and the Self-reported Fear Index measures. This very low correlation (.073) (which for all

practical purposes represents no correlation) could be due to a lack of agreement between what the observers rated as anxious behavior and what the counselors rated as anxious behavior. It could also be a result of the subjective nature or imprecision of the measures used in this study, especially that of the Self-reported Fear Index.

On the other hand, the correlations between the measure of the counselor's ability to handle the client's feelings and emotions appropriately and all three anxiety measures are relatively low and in the negative direction as would be expected. Table 4.2 shows that a negative correlation exists between the ratings of anxiety and the ratings of the ability of subjects to reflect client's feelings in an appropriate manner. In other words, these data suggest that the more anxious the counselor is, the less able he will be to reflect and communicate appropriately his client's feelings and emotions.

Hypothesis 1:

Hypothesis 1 stated that both the implosive therapy and systematic desensitization groups would score significantly lower than a control group on all anxiety measures used, namely: A Behavioral Checklist for Performance Anxiety, the Self-Reported Fear Index, and the Counselor's Anxiety Index. There are two parts for this hypothesis, these are:

Part one - Implosive < Control ($T_1 < T_3$)

Part two - Desensitization < Control ($T_2 < T_3$)

Neither part of this hypothesis was supported by the data. Means of the treatment groups on the dependent variables are given in Table 4.3. The results of the multivariate and the univariate analysis of variance for this hypothesis are reported in Table 4.4 and Table 4.5 for parts one and two of hypothesis 1.

Table 4.3.--Means of the three treatment groups on the behavior checklist for performance anxiety, (A.M.1), counselor's fear index, (A.M.2), self-reported fear index, (A.M.3), and index of counselor's ability to handle client feelings and emotions (E.M.1).

	T_1 Implosive Therapy	T_2 Systematic Desensitization	T_3 Control Group
A.M.1	77.357	81.357	81.857
A.M.2	33.642	30.857	33.357
A.M.3	16.214	17.928	19.357
E.M.1	47.642	42.000	38.642

[1]The higher the score on the dependent variable A.M.1, A.M.2, and A.M.3 the greater the anxiety experienced.

[2]The higher the score on the dependent variable E.M.1 the more accurate the reflection and communication of the client's feelings and emotions.

Note: A.M.1 Denotes the Behavior Checklsit for Performance Anxiety
A.M.2 Denotes the Counselor's Fear Index as Rated by Observers
A.M.3 Denotes the Self-reported Fear Index
E.M.1 Denotes the Index of Counselor's Ability to Handle Clients Feelings and Emotions as Rated by Clients.

Table 4.4.--Multivariate and univariate analysis of variance on anxiety measures for part one of hypothesis one (implosive vs. control).

Multivariate	F----------2.550 df----------3 and 34 p less than------0.0719				
	Dependent Variable	Mean Square between	dF	F	p less than
Univariate	A.M.1	141.750	1 and 36	4.218	0.047
	A.M.2	0.571	1 and 36	0.012	0.912
	A.M.3	69.142	1 and 36	2.165	0.149

Note: A.M.1 Denotes the Behavior Checklist for Performance Anxiety
A.M.2 Denotes the Counselor's Fear Index as Rated by Observers
A.M.3 Denotes the Self-Reported Fear Index

Table 4.5.--Multivariate and univariate analysis of variance on anxiety measures for part two of hypothesis 1 (desensitization vs. control) T_2 - T_3.

Multivariate	F----------0.322 dF----------3 and 34 p less than------0.809				
	Dependent Variable	Mean Square between	Df	F	p less than
Univariate	A.M.1	1.750	1 and 36	0.052	0.820
	A.M.2	43.750	1 and 36	0.9310	0.341
	A.M.3	14.285	1 and 36	0.447	0.507

Note: A.M.1 Denotes the Behavior Checklist for Performance Anxiety
A.M.2 Denotes the Counselor's Fear Index as Rated by Observers
A.M.3 Denotes the Self-Reported Fear Index

These data show no significant differences between implosive and control groups or between desensitization and control groups on any or all anxiety measures, whether separately in a univariate analysis of variance or together in a multivariate analysis of variance.

Hypothesis 2

Hypothesis 2 stated that both the implosive therapy and systematic desensitization groups would score significantly higher than the control group on the Index of Counselor's Ability to Handle Client Feelings and Emotions as rated by Clients. It is a two part hypothesis. These are:

Part one - Implosive > Control ($T_1 > T_3$)

Part two - Desensitization > Control ($T_2 > T_3$)

Part one of this hypothesis was supported by the data. Means of these two groups on this dependent variable are reported in Table 4.3. The results of the univariate analysis of variance for this hypothesis are reported in Table 4.6.

The data in these two tables show a significant difference at the .05 level between the implosive therapy group and the control group on the ability to handle appropriately the feelings and emotions of clients. The means shown in Table 4.3 indicate that the implosive therapy group scored higher than the control group on the Index

Table 4.6.--Univariate analysis of variance on the index of counselor's ability to handle client feelings and emotions.

	Dependent Variable	Mean Square between	F	df	p less than
Hypothesis 2 part one (T_1 - T_3) Implosive-Control	E.M.1	367.00	10.959	1 and 36	0.003*
Hypothesis 2 part two (T_2 - T_3) Desensitization-Control	E.M.1	78.892	1.399	1 and 36	0.244
Hypothesis 2 part two (T_1 - T_2) Implosive-Densensitization	E.M.1	222.892	3.954	1 and 36	0.054

Note: E.M.1 Denotes the Index of Counselor's Ability to Handle Client's Emotions and Feelings as Rated by Clients.

of Counselor's Ability to Handle Client Feelings and Emotions. However, the data reported in the same two tables, Tables 4.3 and 4.6, did not support part two of this hypothesis and showed that no significant difference between the desensitization and control groups was found for this dependent variable.

Hypothesis 3

Hypothesis 3 stated that the implosive therapy group would score significantly lower than the desensitization group on all anxiety measures separately or as a group, and they would also score significantly higher on the Index of Counselor's Ability to Handle Client Feelings and Emotions. This hypothesis is also a two part hypothesis comparing the implosive group with the desensitization group on two different aspects of the study. The two parts are.

Part one $T_1 < T_2$ < on anxiety (implosive < desensitization)

Part two $T_1 > T_2$ on counselor's ability to reflect and communicate client's feelings and emotions appropriately (implosive > desensitization)

The data reported in Table 4.3 of the treatment means and Table 4.7 for the univariate and the multivariate analysis on anxiety measures did not support part one of this hypothesis.

Table 4.7.--Multivariate and univariate analysis of variance on anxiety measures for part one of hypothesis 3 (implosive vs. densensitization) $T_1 - T_2$.

Multivariate	F	2.709
	dF	3 and 34
	p less than	0.060

	Dependent Variable	Mean Square between	dF	F	p less than
Univariate	A.M.1	112.000	1 and 36	3.333	0.076
	A.M.2	54.321	1 and 36	1.156	0.289
	A.M.3	20.571	1 and 36	0.644	0.427

Note: A.M.1 Denotes the Behavior Checklist for Performance Anxiety
A.M.2 Denotes the Counselor's Fear Index as Rated by Observers
A.M.3 Denotes the Self-Reported Fear Index

No significant differences were found on the anxiety measures between the implosive therapy group and the systematic desensitization group on either the multivariate or the univariate analysis of variance. The data reported in Table 4.6 on the contrast between the implosive group and the desensitization group did not support part two of this hypothesis. No significant difference between the implosive group and the systematic desensitization group was found in ratings of clients on the Index of Counselor's Ability to Handle Client Feelings and Emotions.

Sex by Treatment Interaction Effects

Hypothesis 4

Hypothesis 4 stated that there will be no significant sex by treatment interaction effects on all measures of dependent variables. Since the study had two main objectives, anxiety reduction and accuracy of communicating emotions by counselor trainees, it is appropriate to report the tests of interaction effects and sex effects separately to be consistent with the hypothesis. A summary of the test of sex by treatment interaction is provided in Table 4.8 with multivariate analysis of variance on all three anxiety measures and univariate analysis of all measures separately including the Index of Counselor's Ability to Handle Client Feelings.

Table 4.8.--Multivariate and univariate analysis of variance of sex X treatment interaction on all anxiety measures and the index of counselor's ability to handle client feelings.

Sex X Treatment Interaction					
Multivariate for A.M.1 A.M.2 and A.M.3	F----------0.3648 dF----------6 and 68 p less than------0.8988				
	Dependent Variable	Mean Square between	dF	F	p less than
Univariate	A.M.1	7.4524	2 and 36	0.2218	0.8022
	A.M.2	33.1667	2 and 36	0.7058	0.5005
	A.M.3	19.8095	2 and 36	0.6203	0.5435
	E.M.1	100.4524	2 and 36	1.7822	0.1828

Note: A.M.1 Denotes the Behavior Checklist for Performance Anxiety
A.M.2 Denotes the Counselor's Fear Index as Rated by Observers
A.M.3 Denotes the Self-Reported Fear Index
E.M.1 Denotes the Index of Counselor's Ability to Handle Client Emotions and Feelings as Rated by Clients

The findings of this study fail to reject hypothesis 4 of no sex by treatment interaction effect. The data did not reveal a significant sex by treatment interaction for any of the dependent variables.

Sex Effect

Sex effect across treatments was investigated using multivariate and univariate analysis of variance for all dependent variables. The analysis of the data on sex effect is reported in Table 4.9 where multivariate and univariate analysis of variance has been computed on all anxiety measures as a group in the multivariate analysis and separately along with the fourth measure (E.M.1) in a univariate analysis of variance.

It is clear from Table 4.9 that there was no significant sex effect as measured by any or all dependent variables. This means that, in this particular study, there was no significant difference in the performance of males and females on any or all of the dependent variables used in the study.

Summary

Evidence indicating a relatively high reliability of the average ratings of observers on the anxiety measures and somewhat low reliability on the counselor's ability to handle client's feelings measure was reported as it was

Table 4.9.--Multivariate and univariate analysis of variance of sex effect on all dependent variables.

Sex Effect				
Multivariate for A.M.1, A.M.2 and A.M.3	F----------0.859 dF----------3 and 34 p less than------0.471			
	Dependent Variable	Mean Square between	dF	F	p less than
Univariate	A.M.1	91.523	1 and 36	2.723	0.107
	A.M.2	16.095	1 and 36	0.342	0.562
	A.M.3	1.166	1 and 36	0.036	0.849
	E.M.1	24.381	1 and 36	0.432	0.515

Note: A.M.1 Denotes the Behavior Checklist for Performance Anxiety
A.M.2 Denotes the Counselor's Fear Index as Rated by Observers
A.M.3 Denotes the Self-Reported Fear Index
E.M.1 Denotes the Index of Counselor's Ability to Handle Client Feelings and Emotions as Rated by Clients

relevant to the data. It was also indicated that a somewhat low but positive correlation was found between all ratings of anxiety measures. However, the correlation between the ratings of the counselor's ability to handle client feelings and emotions and all anxiety measures was found to be moderate and in the negative direction as would be expected.

No significant sex by treatment interaction effects were found on any or all dependent variables as indicated by the use of multivariate and univariate analysis of variance. Also, no signficant sex effect across treatment was found on any or all dependent variables.

As to the study's hypotheses of main effects, a significant difference at the .05 level was found to support part one of hypothesis two. This is to say that the implosive therapy group scored significantly better than the control group on the Index of Counselor's Ability to Handle Client Feelings and Emotions. None of the other hypotheses was supported by the data. The data supporting these findings were reported in summary tables in this chapter.

CHAPTER V

SUMMARY AND DISCUSSION

Summary

The primary purpose of this study was to test the effectiveness of two behavior therapy techniques in reducing or eliminating counselor's anxiety (the prior accidental conditioning to aversive words and emotions) when dealing with high affect problems, and to help the counselor to appropriately reflect and communicate feelings and emotions to a client without experiencing debilitating anxiety. The two techniques are implosive therapy and systematic desensitization, two learning theory derived methods of psychotherapy. They were also compared with a control treatment in which material about the understanding of anxiety was presented.

These methods have been traditionally used for therapeutic purposes with phobic patients. However, in this study they were used as training methods with counselor trainees who were assumed to be normal people. Much of the existing professional literature concerning those two methods seems to indicate the effectiveness of both over other traditional therapy methods. However, when

compared with each other, the literature indicates that when given a short-term therapy treatment, implosive therapy is more effective. It also indicates that implosive therapy is more efficient, in that treatment would be completed in much less time than required for systematic desensitization.

It was hypothesized that each of the implosive therapy and systematic desensitization groups would score lower on any or all anxiety measures used in this study and they would score higher on the accuracy of reflecting and communicating client feelings than the control group. It was also hypothesized that the implosive therapy group would score lower on anxiety measures and higher on the measure of accuracy of reflecting and communicating client feelings than the systematic desensitization group.

The subjects for this study were fifty-eight Master's degree candidates in counseling at Michigan State University. They were all volunteers with a partial credit given toward their counseling practicum experience for participation in the investigation. However, for purposes of achieving the most accurate and effective experimental design of equal cells, only forty-two of them were actually considered in the final analysis. Twenty-one of the subjects were males and twenty-one were females.

All treatment sessions were pre-tape recorded with the same voice for all treatments. Each treatment

consisted of seven sessions that averaged thirty minutes for each session. The implosive therapy group was given two introductory sessions to orient the group members to the nature of the implosive treatment and to train them in mental imagery. The other five sessions were devoted to producing the implosive condition through the use of anxiety producing scenes where one very detailed scene was introduced each session. These scenes were scheduled according to the intensity of anxiety they were designed to elicit. The systematic desensitization group was also given two introductory sessions with training in deep muscle relaxation and mental imagery. The other five sessions were devoted to introducing the eighteen-scene hierarchy developed by the investigator with the help of six doctoral candidates who were familiar with behavior therapy techniques. The control group treatment was also given two introductory sessions that emphasized the purpose of the study and the importance of understanding anxiety and emotions in order to control anxiety. The other five sessions were devoted to the meaning, components, experience, recognition, and treatment of anxiety in general.

A 2 x 3 factor design matrix was developed, with treatments crossed with sex and subjects nested within treatments. Multivariate and univariate analysis of variance was used in the analysis of the data. However, only the hypothesis that the implosive therapy group would score

higher than the control group on the Index of Counselor's Ability to Handle Client Feelings and Emotions was supported. The difference between these groups was significant at the .05 level of confidence. No significant differences at this level were found for any of the other hypotheses. Since no significant sex or sex by treatment interaction effects were found, it was concluded that the effect on the supported hypothesis was due to the treatment condition.

Discussion of Main Treatment Effects

The current study showed a significant treatment effect for only one hypothesis or contrast, namely, implosive versus control on the counselor's ability to reflect and communicate client feelings and emotions. For the rest of the hypotheses, no significant differences of treatment effects were found. These results may be attributed, at least, to the following possible factors: sampling, instrumentation, and treatments.

Sample

Even though sampling problems tend to be less severe in experimental research than survey studies, they may have contributed in this study to the lack of significant differences between groups. The question here concerns whether the subjects in this study differ systematically from those in earlier reported studies of implosive

therapy and systematic desensitization in any of the characteristics which might have affected their performance on the measures employed in this study.

First of all, the fact that the subjects of this study are Master's candidates in counseling at Michigan State University makes them a particular group that could be different from most subjects of reported studies including subjects studied at other universities. In other words, this group of subjects might not represent in its characteristics the subjects used in other reported studies of this kind. The fact that the subjects of this study were volunteers with a partial credit given for their participation could make them a unique group. Their participation in two other studies in the same year (Scherman, 1972 and Stone, 1972) could also have affected their performance in this study and contributed to their uniqueness as a group.

Another important aspect of sampling would be that almost all subjects used in earlier reported studies investigating the effectiveness of those two techniques were presumed to be phobics for some kind of animal, object, or situation. Such phobic behavior was demonstrated in the majority of the studies by pre-treatment measures. In this study there was no serious attempt to establish whether those subjects were phobics or not. In fact, they were assumed to be normal people. They had functioned in

a counselor training program for ten months without displaying phobic behavior. This makes them different, at least in this characteristic, from subjects of studies of the effectiveness of implosive therapy and systematic desensitization. All of these sampling problems may have contributed to the lack of significant effects. The fact that subjects of earlier studies were reported to be phobics may have led the investigator for this study to err by assuming that similar results would apply to normal people such as those used in this study.

Instruments

The discussion of problems associated with instrumentation and measurement will not be limited to any one particular measure or rater. All measures used in this study and the training of the raters will be considered. All measures used in this study were based on the ability of raters to observe behavior and report their observations accurately. However, rater skills and biases, whether the rater was an observer, client or counselor, could lead to different interpretations as to the meaning of the same imte. For example, the Behavior Checklist for Performance Anxiety (Appendix E) appears to be a valid and adequate measure; however, the reliability of the average ratings of four observers was in the moderate range (.669). The lack of higher reliability might be attributed to the possibility that a move of the hand, as an example, might have been

interpreted to be an indication of anxiety by one observer and could have been interpreted to be a neutral move that is unrelated to anxiety by a different observer. The same explanation could apply to many other overt behaviors which were observed.

The second measure of anxiety is the Counselor's Fear Index as Rated by Observers (Appendix F). This instrument was developed by the investigator for the purpose of this study. This measure apparently lacks precision and did not fully operationally define the behaviors to be observed. The lack of instrument precision along with a possible lack of sufficient training for the raters are factors that could have contributed to the moderate reliability of this particular measure. The reliability of the average ratings on this measure was .75. The Counselor's Self-Reported Fear Index (Appendix G) was also developed by the investigator and is basically similar to the Counselor's Fear Index as Rated by Observers. The same arguments could apply here with emphasis on the validity and precision of self-reports since it was the counselor (subject) who was rating himself. The reliability of the average ratings on this index was a moderate one (.695).

The fourth measure used to evaluate the subjects ability to reflect and communicate client feelings of high affect nature was the Index of Counselor's Ability to Handle Client Feelings and Emotions as Rated by the Client

(Appendix H). This index was also developed by the investigator. However, the reliability of the average ratings was low (.41). This could be attributed to the lack of sufficient training of the clients in rating and to the fact that they were presenting completely different types of problems to the same subjects with different intensities of high affect emotions. In spite of the low reliability on this measure, the only significant contrast was found between the implosive group and the control group in this measure.

Another measure which could have been very significant to the study was the measure of the number of appropriate affect words and phrases reflected and communicated to the client by the counselor and the ratio of this number to the total number of all affect words and phrases reflected and communicated during the evaluation sessions. Unfortunately, this measure was not used due to the failure of achieving good quality taping of the evaluation sessions which led to the abandonment of this measure.

Treatments

In this section such concerns as the lack of reported treatments for this purpose, the nature of the material for producing anxiety used in the treatments and the time limitation will be considered.

As to the treatment for this particular training purpose, no treatment of this kind was reported in the literature. However, a preliminary investigation was conducted by the investigator prior to the treatment to test the validity of the scenes used as anxiety-eliciting stimuli involving counselor-client interactions.

The nature of the hypothetical anxiety producing material used in the implosive or systematic desensitization groups, the intensity of the anxiety elicited by it, and the fidelity of simulation to counseling situations are matters of interest that might have contributed to the lack of significant treatment effects. Some subjects on occasion reported experiencing little or no anxiety during treatment. Part of this was attributed by them to the hypothetical nature of the situations portrayed by the scenes they were instructed to imagine. Even though these hypothetical scenes involved interactions between the subject as a counselor and a highly emotional client, they may have been considered unrealistic by at least some of the subjects. These scenes perhaps did not elicit enough anxiety in these subjects to make the treatments effective. The eliciting of maximum anxiety is an important aspect or condition for the effectiveness of implosive therapy. Another possible factor could be that the subjects of this study who are assumed normal people do differ more in their ability to use mental imagery than phobics used in other reported studies.

Another matter of concern is the limited time of three and a half hours per treatment. This could be a considerably hindering factor of treatment effectiveness, especially in the case of systematic desensitization. The findings of Barrett (1969) that implosive therapy was more efficient in that treatment was completed in 45 per cent of the time required for systematic desensitization therapy could lend some support to this matter. Even though evidence was not found, it is possible to assume that given such a short time for treatment these methods of treatment might be more effective with some types of subjects such as the phobics than they are with normals as used in this study.

However, two interesting but not hypothesized findings in this study should receive considerable attention.

1. The hypotheses stated in this study concerned anxiety reduction and the ability of the counselor to reflect appropriately and communicate client emotions as two separate issues. However, when comparing treatments on all of the four dependent measures as a group in a multivariate analysis of variance, the following contrasts were found significant at the .05 level.
    a. The implosive group was found significantly more effective than the control group.

b. The implosive group was also found to be significantly more effective than the systematic desensitization group. However, no significant difference was found between the systematic desensitization and control groups when the same procedure of data analysis was used. Tables 4.3 and Table 5.1 show the above findings.

2. The second finding that should be noted for future investigators is the fact that, had the investigator in this study chosen a larger alpha level, such as 0.10, the following contrasts would have been significant:

   a. $T_1 - T_3$ (implosive vs. control) in favor of the implosive group on all anxiety measures taken as a group in a multivariate analysis of variance with an alpha level of .07 (Table 4.4).

Table 5.1.--Multivariate analysis of variance on all four dependent variables--for the following contrasts $T_1 - T_3$, $T_1 - T_2$, $T_2 - T_3$.

	F	dF	p less than
Implosive vs. Control $T_1 - T_3$	4.132	4 and 33	0.008*
Implosive vs. Densesitization $T_1 - T_2$	3.277	4 and 33	0.022*
Desensitization vs. Control $T_2 - T_3$	0.368	4 and 33	0.829

b. $T_1 - T_2$ (implosive vs. desensitization) in favor of the implosive group on all anxiety measures taken as a group in a multivariate analysis of variance with an alpha level of .06 (Table 4.7).

c. $T_1 - T_2$ (implosive vs. desensitization) in favor of the implosive group on the Index of Counselor's Ability to Handle Client Feelings and Emotions in the univariate analysis of variance with an alpha level of .054 (Table 4.6).

Another finding that was reported in Chapter IV is the fact that the inter-correlation between anxiety measures and the measure of the ability of counselors to reflect appropriately and communicate clients' feelings and emotions was found to be somewhat low, but in a negative direction. The importance of this finding is the support which it gives to the notion that if appropriate reflecting and communicating of feelings and emotions of clients is part of effective counseling, then it follows that less anxiety experienced by counselors would increase their effectiveness. If effective counseling could be operationally defined, an

interesting study could be developed to test this notion with the use of correlational analysis.

Implications for Future Research

Contrary to earlier reported studies with significant findings as to the effectiveness of implosive therapy and systematic desensitization in the reduction of anxiety, this study failed to achieve significant findings in this respect. Possible reasons for the lack of significant findings on anxiety reduction were suggested and discussed earlier in this chapter. These factors were: sampling, instrumentation and treatments. Any further research replicating this study or a similar one should consider these factors carefully. This study has demonstrated the difficulties in applying a therapy treatment as a training mode for counselor trainees who are assumed to be normal people. However, such training programs are worthy of further investigations in the form of well-controlled and replicated studies taking into consideration the following suggestions:

1. Subjects: It is believed that baseline information about the anxiety of subjects by measuring the level of anxiety experienced by the subjects when confronted with highly emotional problems would be of great value. It will not only give the investigator

a notion of the amount of improvement achieved but it will also add data regarding the effectiveness of these methods with high level or low level anxiety people previous to treatment. This of course, requires a pre-testing procedure followed by implementation of a randomized block design on the basis of low, medium, or high level of anxiety. This kind of design would have provided additional information through the use of the analysis of covariance.

2. Clients: Role playing clients were used in this study. Actual clients would be preferred. This would not only make the whole setting more realistic but would increase the chances of subjects taking the evaluation more seriously. This, of course, would require a longer period of evaluation than was used in this study. If it is not possible to use real clients, then role-playing clients could still be used after carefully training them as to the roles they are to play. If they are to be asked to evaluate subjects, an intensive training program in the methods of evaluation should be used.
3. Treatments: The treatments might have been more effective if conducted face-to-face with subjects by live counselors rather than by tape recordings. This procedure would require a great deal of manpower

and would usually be infeasible for most departments of counselor education. Improvements could be made, however, in the tape presentations.

The scenes used in the implosive therapy treatment and the hierarchy used in the systematic desensitization treatment in this study were built hypothetically without any consultation with the subjects involved in the study. It is possible that the choice of the scenes and the arrangement of the hierarchy used could be worked out together with the subjects involved in each treatment. This could make the scenes more representative of the kind of emotional encounters that elicit anxiety in counselors. Once the scenes are chosen, they could be tested for the intensity of the anxiety elicited by them as was done in the preliminary study conducted prior to this investigation. The difference would be to test all the scenes on a larger sample of subjects who are not involved in the study. This procedure would make it possible to drop those scenes that do not elicit enough anxiety to be effective during treatment.

4. Measures: If the same or similar measures are to be used in a replication of this study, the items in each of the measures should be operationally defined in a more rigorous manner. Following this

the raters should be trained to use these measures prior to the evaluation process, and inter-rater reliability or reliability of the average ratings should be established prior to the evaluation process. A high reliability of ratings could be guaranteed before the evaluation was performed. The current study failed to do this, but rather computed the reliability on the basis of the post-treatment ratings. Apparently, the investigator also failed to provide enough training for the raters to increase the probability of achieving a high degree of reliability.

All equipment used in measuring the results of the experiment should be carefully checked to insure proper functioning. If audio tape is used, all possible distracting noise should be eliminated to insure high fidelity of recordings. This problem caused the investigator of this study to cancel one of the measures that was believed to be the most objective and accurate indication of the ability of counselors to reflect and communicate client feelings and emotions.

5. Control group: The use of control groups in experimental studies often presents either ethical or practical problems. If the experimenter uses a control group that involves no treatment at all,

> he is unable to compare his treatment effects with a treatment of some kind; that is, he will only be able to compare his treatment against no treatment. In the other type of control group, like the one used in this study where some kind of traditional treatment was given, data should be collected as to how much improvement or difference among groups was due to maturation or other learning processes.

A model that utilizes two control groups is recommended. This model involves two control treatment groups. One group would receive some type of traditional treatment and the other group would receive no treatment. Each of these groups would allow for the collection of different and additional kinds of information that is not possible by the use of one or another alone.

In conclusion, if this study is replicated, all of the above mentioned factors should be carefully considered and applied when it is feasible within the research setting. However, doctoral candidates should be aware of the time and effort required for this type of study and the problems involved in the control and evaluation of such an investigation.

In studies that involve two or more objectives, such as this study, which aimed at anxiety reduction and the improvement of the counselor's ability to reflect and

communicate client feelings and emotions, it is possible that the experimenter might favor one over the other. This possibility, whether the investigator is aware of it or not, could cause the treatment to be oriented more toward one objective than the other. If this happens, the probability of achieving significant effects on that particular aspect is greater than that of the other aspects of the problem. Such an effect could have happened in this study even though the experimenter was not aware of any effect of this nature. This could be another explanation for achieving a significant effect on one aspect of this study. Therefore, two studies could be used to replicate the present investigation. One could study anxiety reduction and the other the improvement of ability of counselors to handle feelings.

A final recommendation is when counselor trainees are used for a replication of this study, the treatment should be timed to take place before trainees start their practicum experience. If they have already finished or are currently enrolled in counseling practicum, they could have already become desensitized to the stimuli of interest. They also may have established some type of expectancy for the treatment model that would be difficult to change or overcome during a short-term treatment program.

Conclusions

The main question asked by this research concerned whether significant differences between implosive therapy, systematic desensitization and a control treatment in 1) reducing anxiety and in 2) training counselor trainees to appropriately handle client feelings and emotions of a high affect nature would be found as predicted by the hypotheses of this study. However, the conclusions of this study must be understood in terms of the limitations and difficulties encountered in the investigation, such as the failure to obtain one behavior measure due to improper functioning of the equipment and the lack of precise instruments for measuring the outcomes of the study more accurately. Given the constraints and limitations discussed earlier in this chapter, the following conclusions have been drawn from the study and are based on the data obtained.

1. Implosive therapy is more effective than a control treatment for training counselor trainees to communicate appropriately client feelings and emotions of a high affect nature. It should be remembered that this conclusion as well as the others to follow can only be generalized to similar populations of counselor trainees.

2. When all four measures used in the evaluation of this study are used as a group in a multivariate analysis of variance, implosive therapy is more effective than a systematic desensitization treatment and a control treatment in the training of counselor trainees to handle client feelings appropriately and in the reduction of counselor anxiety.
3. The trends and patterns shown in the data, as represented in the alpha levels for the different contrasts of this study, indicate that a replication of this study would be very productive. Several measures were approaching a significant level and a more adequately controlled investigation might possibly establish the effectiveness of implosive therapy and systematic desensitization in training prospective counselors.
4. No sex or sex by treatment effects were found in this study. This means that males did not do differently than females and no combination of sex by treatment was better than another combination. This makes it possible to conclude that all or any significant differences found between the treatments of this study are due to treatment main effects rather than to sex or sex by treatment interaction effects.

APPENDIX A

ABSTRACT

THE RELATIVE EFFECTIVENESS OF PROSE TEXT, LINEAR PROGRAMMED INSTRUCTION AND BRANCHING PROGRAMMED INSTRUCTION IN TEACHING COUNSELING THEORIES

By

Avraham Scherman

The purpose of this study was to assess the differential effects which prose text, linear programmed instruction and branching programmed instruction may have on measures of retention of information, application of information, time spent in study, and finally on motivation and attitudes of counselor trainees toward each of the three types of instruction. It was suggested that programmed instruction was a promising method of improving instruction in a Counseling Theories Course at the graduate level and that a systematic investigation should be made of this instructional procedure.

Ninety one master's degree candidates in counseling at Michigan State University, enrolled in a Counseling Theories Course being taught at three locations (East Lansing, Grand Rapids and Pontiac), were randomly assigned to one of the three instructional conditions: prose text, linear programmed instruction and branching programmed instruction. Pre- and post-tests that followed each

instructional unit, and a questionnaire concerning attitudes and motivation of students were administered to each of the subjects.

No significant differences were found in terms of overall treatment effect; however, a significant location effect was found. In addition, a significant difference between treatments over repeated measures was found. The prose text group performed consistently lower than the other two groups. Differences in attitudes were found mainly between the sexes with regard to amount of time needed for study, effectiveness of the course, references included in the material, concentration, and interest and stimulation.

The reported results could be attributed to a number of possible contributory factors such as theory, sampling, design and statistics, instrumentation and treatments. Each of these factors were discussed and their possible influence was presented.

Differences between sexes appeared to be one of the primary variables that should be further investigated. Programmed instruction appeared to be a promising mode of instruction and further research should be conducted to identify its major effects in counselor training programs.

APPENDIX B

ABSTRACT

THE EFFECT OF FIDELITY OF SIMULATION
ON COUNSELOR TRAINING

By

Gerald Lee Stone

This experiment examined the effects of fidelity of simulation in counselor training. In order to assess the effects of the use of simulation methods in counselor education, the following questions were formulated: (1) Are high fidelity models more effective than low fidelity models? (2) Is high fidelity practice better than low fidelity practice? (3) Is an instructional strategy that includes model, practice, and test more effective at a high fidelity level of simulation than at a low fidelity level of simulation? And (4) is such a strategy better when model, practice, and test are presented at the same fidelity level of simulation than when the three components are presented at dissimilar fidelity levels of simulation?

To seek answers for these questions, a counselor training program was developed with the intent of making systematic comparisons of outcomes between simulation methods used in teaching a basic skill in counseling called concreteness (CTRL).

The simulation methods used within each phase of the study were categorized according to fidelity of simulation, i.e., how closely they approximated the actual situation. Manual and audio methods were considered to be low fidelity simulations. Video and in vivo methods were considered to be high fidelity simulations. The training procedure consisted of three phases: model, practice, and test.

The basic design of the study was an experimental "post-test only" design suggested by Campbell and Stanley (1963). Subjects were randomly assigned within each phase of the training procedure. In the modeling phase, subjects were randomly assigned to one of four simulation methods. The four simulation methods used during the modeling phase were: (1) manual, (2) audio, (3) video, and (4) in vivo. The model treatments were administered in a group setting. The interaction within each model treatment group was minimal. In order to maintain independence, the model treatment did not depend upon group interaction but was primarily an individual administration within a group setting. During the practice phase the subjects within each of the four modeling simulations were randomly assigned to one of two simulation methods. The two simulations methods were: (1) manual and (2) in vivo. The practice treatments were administered either in manual or in vivo form permitting individual administration of the practice treatments.

Within each of the eight combinations of model and practice simulations, subjects were then randomly assigned to one of two simulation methods used during the test phase. The two simulation methods were: (1) manual and (2) in vivo. The test treatments were administered either in manual or in vivo form permitting individual administration of the test treatments. The same content was administered during each phase of the study to all subjects. Ten weeks following the treatment administration, a long-term measure was conducted with 48 of the original 74 subjects.

The subjects for the present study were master degree candidates in counseling at Michigan State University. The treatment variables of model, practice, and test were completely crossed. The subjects were equally distributed within the sixteen-cell design having equal cell frequencies.

The criterion measures used in this study were formulated to examine the separate and combined effects of the fidelity of simulation in model, practice, and test. The short-term measure was obtained by asking each subject to place himself in the counselor role within the goal-setting stage and to respond to twenty standardized client problems. The same client problems were presented to subjects of all of the treatment groups. The responses were subsequently rated by two independent judges on whether the responses were a CTRL or a non-CTRL. Reliability estimates for the ratings were .87 and .85 (manual) and .66 and .60

(audiotapes). The long-term measure was obtained by counting the number of CTRLs made by the subjects during a randomly selected five minute excerpt from the last half of their first counseling interview during practicum. The ratings of the long-term measure were done by one of the raters used on the short-term measure. The reliability estimate for the ratings on the long-term measure was .59.

It was hypothesized that subjects who received model, practice, and test at the same level of fidelity of simulation would make more CTRLs during the short-term measure than would subjects who received the same components at varying levels of fidelity of simulation. It was also hypothesized that the subjects who received model, practice, and test at a high fidelity level of simulation would make more CTRLs on the short- and long-term measures than would subjects who received the same components at a low fidelity level of simulation. It was hypothesized that subjects who received the high fidelity model procedure would make more CTRLs on the short- and long-term measures than would subjects who received the low fidelity model procedure. More specifically, in regard to the hypothesized effects concerning the model treatments, the four model simulation groups were predicted to order themselves in terms of making CTRLs during the short- and long-term measures as follows (from high to low): In Vivo > Video > Audio > Manual. It was also hypothesized that the subjects who received the

high fidelity practice procedure would make more CTRLs on the short- and long-term measures than would subjects who received the low fidelity practice procedure. All first and higher order interactions were also investigated.

The data were analyzed using a multivariate and univariate analysis of variance and planned contrasts. In order to determine the linear relationship between the score on the Index of Discrimination (Carkhuff, 1969a) (a possible covariate) with the dependent variable in this study (CTRLs), an analysis of covariance was used. The correlation between the covariate and the short-term measure was low ($r = .04$) indicating that the continued use of this particular subject variable would not be helpful in reducing the posttreatment variance.

On the short-term measure significant ($\alpha = .05$) interactions among the treatment variables of model, practice, and test were found. For all practical purposes, the interactions were ordinal. A statistically significant ($\alpha = .05$) effect was found due to presenting model, practice, and test at a high fidelity level of simulation. Separate significant ($\alpha = .05$) effects were found for high fidelity model and high fidelity practice. The differences seem to hold primarily for a particular combination of fidelity of simulation and model, practice, and test. The Low Fidelity Model--Low Fidelity Practice--Low Fidelity Test

Groups (1 and 2--Table 4) were low in comparison with all other groups who performed about equally.

During the long-term measure, a significant ($\alpha = .05$) model x practice interaction was found. The interaction was disordinal yielding contradictory results especially the interaction of manual model simulation and practice. All other effects were non-significant ($\alpha = .05$).

APPENDIX C

MUSCLE GROUP HIERARCHY FOR DEEP MUSCLE RELAXATION

1. Left hand fist
2. Right hand fist
3. Bend left hand back
4. Bend right hand back
5. Bring both arms to shoulders
6. Shrug both shoulders
7. Wrinkle up forehead
8. Close eyes tightly
9. Tongue to roof of mouth
10. Press lips together
11. Push head back against chair
12. Bend head forward and bury the chin in chest
13. Arch back off chair
14. Take deep breath and hold it
15. Suck in stomach
16. Tense stomach muscles
17. Tense buttocks by pushing them into the chair
18. Lift both legs off the chair - tense thighs
19. Point toes upward toward knees
20. Curve toes down into ground-arches

APPENDIX D

PERTINENT PHRASES USED WITH RELAXATION INSTRUCTIONS

A. Sit back and rest and be comfortable

B. Close eyes as I talk

C. Learn to relax your muscles

D. Learn to enjoy relaxation

E. Note the difference

F. Note the contrast

G. Enjoy the feelings of relaxation

H. Note the relaxation spreading to other parts now

I. Other parts are feeling more relaxed and loose

J. Note the muscles are relaxed in the whole body

K. Note the pleasant sensations

L. Note the deep and heavy feeling

M. Note how you can become more and more relaxed

N. I will go through the muscle group again and make sure each group is completely relaxed

O. Soak up the pleasant feelings

P. Continue for awhile

APPENDIX E

BEHAVIORAL CHECKLIST FOR PERFORMANCE ANXIETY

RATER _____ DATE _____

SUBJECT'S NAME _____

BEHAVIOR OBSERVED	Never 1	Some-times 2	Often 3	Contin-uously 4
1. Shuffles Feet				
2. Knees Tremble				
3. Extraneous Arm and Hand Movement (swings, scratches, toys, etc.)				
4. Arms Rigid				
5. Hands Restrained (in pockets, behind back, clasped)				
6. Hand Tremors				
7. No Eye Contact				
8. Face Muscles Tense (drawn, tics, grimaces)				
9. Face "Deadpan"				
10. Moistens Lips				
11. Swallows				
12. Clears Throat				
13. Breathes Heavily				
14. Voice Quivers				
15. Speech Blocks or Stammers				

Comments

SUM _____

APPENDIX F

COUNSELOR'S NAME_____ CLIENT'S NAME_____

RATER_____

COUNSELOR'S FEAR INDEX AS RATED BY OBSERVERS

Please check each of the following statements for the counselor you have just observed, using the five point scale of: (1) not at all; (2) a little; (3) a fair amount; (4) much; (5) very much.

		1	2	3	4	5
1.	Counselor appeared tense and nervous. (Voice changes, avoids eye contact, face blushes or changes color, body movements, clears throat, swings legs, rigid body posture)	X	X	X	X	X
2.	Counselor appeared to be concerned about interviewing the client. Ex. (Stops and thinks of what to do or say and how, with fear, stammers, appears restless, engages in silent moments).	X	X	X	X	X
3.	Counselor appeared to be disturbed (uncomfortable with) by the client's reactions. Ex. (Appears restless, moves in chair, and exhales heavily, etc.).	X	X	X	X	X
4.	Counselor appeared to be defensive (trying to defend self) toward the client's reactions. Ex. (Appears to avoid client's affect remarks, avoids emotional content and jumps to cognitive point in discussion, etc.) . . .	X	X	X	X	X

SUM_____

APPENDIX G

COUNSELOR'S NAME_____CLIENT'S NAME_____

COUNSELOR'S SELF REPORTED FEAR INDEX

Please check each of the following statements for the counseling session that you have just finished, using the five point scale of: (1) not at all; (2) a little; (3) a fair amount; (4) much; (5) very much.

		1	2	3	4	5
1.	I was feeling tense and nervous during the session. Ex. (Voice changes, avoids eye contact, face blushes and changes color, clears throat, heart pounding, etc.).	X	X	X	X	X
2.	I was concerned about my handling the client and the situation. Ex. (Stop and think of what to do or say and how with fear, feel restless, engages in silent moments, etc.).	X	X	X	X	X
3.	I was feeling disturbed by (uncomfortable) the client's reactions. Ex. (Being restless, moves often in chair, exhales heavily, etc.)	X	X	X	X	X
4.	I felt defensive toward the client's reactions. Ex. (Avoids client's affect remarks, avoids subject and jumps to cognitive points in discussion, etc.) .	X	X	X	X	X

SUM_____

APPENDIX H

COUNSELOR'S NAME_____CLIENT'S NAME_____

THE INDEX OF COUNSELOR'S ABILITY TO HANDLE
CLIENT FEELINGS AND EMOTIONS AS
RATED BY THE CLIENT

Please check each of the following statements for the counselor that you have just seen, using the five point scale of: (1) not at all; (2) a little; (3) a fair amount; (4) much; (5) very much.

		1	2	3	4	5
1.	Counselor seemed to understand what I was feeling.	X	X	X	X	X
2.	Counselor seemed to deal with my feelings and emotions rather than looking for facts about me	X	X	X	X	X
3.	Counselor seemed to be able to show that he was experiencing and sharing my feelings (verbally and non-verbally)	X	X	X	X	X
4.	Counselor seemed to be able to pinpoint my real feelings.	X	X	X	X	X
5.	Counselor seemed to appropriately reflect to me my real feelings . . .	X	X	X	X	X
6.	Counselor seems to be able to communicate his perceptions of my feelings to me clearly.	X	X	X	X	X

SUM_____

APPENDIX I

APPROPRIATE AND INAPPROPRIATE AFFECT
WORDS AND PHRASES TABULATING
FORM USED BY RATERS

RATER_____ DATE_____

SUBJECT'S NAME_____

Please tabulate and count the number of appropriate and inappropriate affect words and phrases used by the counselor in each of the two sessions provided on the tape.

Client A First Session		Client C Second Session	
Appropriate	Inappropriate	Appropriate	Inappropriate
SUM		SUM	

TOTAL APPROPRIATE_____

TOTAL INAPPROPRIATE_____

TOTAL APPROPRIATE AND INAPPROPRIATE_____

RATIO OF $\frac{\text{TOTAL APPROPRIATE}}{\text{TOTAL APPROPRIATE AND INAPPROPRIATE}}$ = _____

APPENDIX J

HOSTILE, AGGRESSIVE CLIENT

1. Your problem that you will present to the counselor is that you have homosexual feelings that frighten you--you feel guilty and afraid. You have not engaged in an overt homosexual act but are scared that you are going to. Let the counselor speak and then for the rest of the session become very angry with the counselor because you think he is not accepting you because of your homosexual problem. Become violent, shout, bang on the table, get up from the chair and move around room--wave your arms with an angry look in your eyes.

   Accuse the counselor of being disrespectful, cheap and worthless. Use profanity and call the counselor names. Curse the counselor for being incomponent, unfeeling, cold, unable to understand, of being a parasite that delights in hearing deep personal feelings and experiences of others because the counselor can't experience these himself.
2. Use lots of highly emotional words for negative affect
3. Body posture should indicate anger and hostility
4. Give the counselor a chance to talk, reflect and communicate his understandings of the problem.you shouldn't talk for more than 30-45 seconds at any time.

5. If you want to collect your thoughts etc.--sit, be silent and glare in hostile way at the counselor.
6. Be very consistent with all counselors.

APPENDIX K

SEVERE DEPRESSION CASE

1. You are very, very unhappy with your marriage. You are apprehensive about the faithfulness of your wife. You can't trust her, and can't have a sex life that is meaningful. You think bad thoughts about her. Thoughts of her being with other men go through your head continually. Your work or school is suffering. You are afraid to find out the truth and won't confront your wife. You are afraid of what you might do if you learned the truth. Indicate that you don't think the counselor understands and cares for you.
2. Use lots of highly emotional words to describe above. Use negative affect and profanity.
3. Be sad, hang your head, don't look at the counselor. Your body posture should indicate sadness bewilderment etc. Your eyes should reflect embarrassment, sadness, etc.
4. Give counselor opportunities to talk, reflect and communicate his understanding of the problem. Don't talk for more than 30-45 seconds at any one time.
5. If you want to collect your thoughts etc., sit, be silent, or hang head in a depressed manner.
6. To start, hang your head in a depressed manner. Be silent for 1-2 minutes no matter what the counselor says or does.
7. Be very consistent with all counselors.

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