A systems based stress reduction psychological education program for emergency veterinary personnel: development and evaluation

Dorsey Thomas Wessells JR.

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A SYSTEMS BASED STRESS REDUCTION PSYCHOLOGICAL EDUCATION

PROGRAM FOR EMERGENCY VETERINARY PERSONNEL:

DEVELOPMENT AND EVALUATION

A Dissertation
Presented to
The Faculty of the School of Education
The College of William and Mary in Virginia

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Dorsey Thomas Wessells, Jr.
May 1982
SYSTEMS BASED STRESS REDUCTION PSYCHOLOGICAL EDUCATION

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DEVELOPMENT AND EVALUATION

by

Dorsey Thomas Wessells, Jr.

Approved May 1982

Fred L. Adair, Ph.D.
Kevin E. Geoffrey, Ed.D
Charles O. Matthews, Ph.D.
Chairman of Doctoral Committee
DEDICATION

To My Family: Lou, Megan, James, Maggy, Susie (deceased 1981), Puss, Purr and Killer.
What is man without beasts? If all the beasts were gone, men would die from great loneliness of spirit, for whatever happens to the beast also happens to man. All things are connected. Whatever befalls the earth befalls the sons of the earth.

ACKNOWLEDGMENTS

In completing this research project the help and support of many people must be recognized.

To my friend Ray Craft, D.V.M., whose frustration over what to do with anxious pet owners helped germinate the seed for this training and research effort, I am especially indebted. To Doctors Chuck Matthews, Kevin Geoffroy and Fred Adair of The College of William and Mary, I owe thanks for their guidance in helping to develop and execute this project. To my friend and colleague Alan Entin, Ph.D., I express my appreciation for his theoretical, technical and emotional support around our common interests, the family. Special thanks must go to the participants from the emergency veterinary clinics in York County, Virginia and Virginia Beach, Virginia who mustered the courage and took the time to participate in the research. Thanks is also extended to Carol Knapp and David Reed for their patience and assistance in helping me comprehend the statistical aspects of the research. Special thanks must go to my friends and colleagues Bill Brockman, Ed.D., and Susan Everton for drawing on their theatrical talents to simulate anxious pet owners for this research. Finally, thanks is extended to Jim Forrester, Ed.D., Ann Aja, Bonnie Kelley, M.S.W., Andre DeShong and Linda Hansen for their assistance in rating various videotape sequences.

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Katcher, M.D., of the Center for the Interaction of Animals and Society, I owe like recognition for his willingness to provide me with a forum to report the findings of this study.
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CHAPTER I

INTRODUCTION

The professional veterinary literature historically has dealt with medical issues that relate to nonhuman animal diagnosis and treatment. To a lesser degree, this literature has addressed the veterinarian. Where the veterinarian has been the subject of concern, the focus has dealt primarily with office management and other business-related issues.

Of late, the veterinary and psychiatric communities have begun to scientifically explore man's relationship to animals. Of specific interests is man's relationship with pet animals. This area of investigation is now referred to in the literature as the Human/Companion Animal Bond. Much of the research and interest in this newly defined area of investigation is originating at the Center for the Interaction of Animals and Society of the University of Pennsylvania, and the Animal Medical Center in New York. Through their work, the significance of the relationship of people and their pets is beginning to be appreciated. This important relationship points up the need to consider the human component in pet animal care and treatment. All but absent from the literature are articles that address the means in veterinary medicine to incorporate the needs of the pet owner and veterinarian in the treatment process.

Precipitated by the work of the Pennsylvania group are two pioneer articles that take into account the human factor in veterinary medicine. McCullock approaches the problem from a background of veterinary medical education. He addresses the need for veterinary training in areas of interaction with pet owners. The following quotation is an excerpt from
his paper delivered at the International Conference on the Human/Companion Animal Bond in 1981.

Because the veterinarian must rely on people to present companion animals for clinical care, he or she becomes intimately and inescapably involved in issues that affect the pet owner and/or pet owner's family emotional health. The veterinarian, as a consequence, is frequently confronted with ethical and value decisions that interact with and determine the emotional well-being of his or her clients. Veterinarians are often thrust into roles in which they face decisions for which they may neither be well prepared by veterinary education and experience, nor have societal or professional sanction to act (e.g. referring a severely disturbed client to a mental health professional). Therefore, to deal more effectively with client emotions and needs as they relate to the psychodynamics of animal ownership, the veterinarian needs to develop a knowledge base and effective verbal and nonverbal communication skills. These include the act of question asking, observing, and the act of listening. (McCullock, 1981)

The second article reports on the results of a pilot study which was designed to train veterinary clinicians in family psychotherapy theory and methodology. The author of this work, approaching the problem from a Mental Health perspective, conceptualizes the pet as a family member. As such, he encourages the focus of veterinary treatment be expanded from medical issues with the pet to include crisis intervention with human family members (Wessells, 1981). Wessells reports that veterinary clinicians find dealing with upset pet owners as one, if not the most, stressful aspect of their work.

Consider for a moment, that various treatments involve different levels of risk to the survival of the animal. While the high risk treatments were reported to be more stressful and the low risk ones, the actual aspect of reporting or anticipating reporting the loss of the animal to the pet owner seemed to greatly increase the stressfulness of the treatment. The actual veterinary issues produced less anxiety in the clinician, than the need to interact with pet owners over those issues. (Wessells, 1981)

These articles are among the first to directly suggest a need for veterinarians to become skillful in attending to pet owners' needs during the course of veterinary treatment.
Need for the study: Establishing a need for this study proposes an unusual dilemma. Most research is supported by needs outlined in professional literature. Specifically, research needs are based on contemporary research being an extension of earlier work. In the area of training to be evaluated in this study, there appears to be little prior formal research in this area. The literature, as noted above, has recently begun to identify the need for training veterinarians to relate more effectively with pet owners. However, the amount of attention paid this area is quite small. A later paper by Wessells alludes to a survey of veterinarians in private practice and numerous veterinarians in university and research settings. All indicated the absence of specific training in the areas above described by McCullock and Wessells (Wessells, 1981). The absence of university or professional enrichment training plus the limited amount of attention paid this area in the literature suggests that either the issue is of little importance or it is just beginning to be identified as an area of importance.

To address this dilemma, literature from the area of the Human/Companion Animal Bond and psychotherapy will be presented to lend theoretical support to the need for research designed to evaluate veterinary training in human relationship issues.

Many authors, researchers and clinicians from the field of veterinary medicine, psychiatry and psychology and anthropology describe the pet as filling an emotional interpersonal role in families (Fox, 1981; Katcher, 1981; Keddie, 1977; Levinson, 1978; Entin, 1982; Ruby, 1981). As such it is reasonable to think that the problems that befall pets have the potential to effect family members in a similar manner to such
problems occurring to a human family member. This view is supported as much by the existence as the content of the new text *Pet Loss: A Thoughtful Guide For Adults and Children* by Nieburg and Fisher. In this text the authors address pet bereavement and many associated issues for adults and children (Nieburg and Fisher, 1982). This text is significant in that it acknowledges in print the appropriateness of a human grief response for a lost or dead pet.

To clarify the interpersonal aspects of the Human/Companion Animal Bond, Messent conducted an empirical study of how pets serve as a "social lubricant" to enable people to meet and communicate. He summarizes his work with the observation that this function of facilitating human communication may be equally well served by an infant in a carriage as a pet dog (Messent, 1981). Messent's work with pet focused interpersonal human interaction offers the opportunity to employ a framework drawn from family systems psychotherapy to understand the pet's role in family emotional process. This comparison is possible because family systems psychotherapy has developed a similar concept of child focused interpersonal human interaction. This concept is based on the emotional triangle. Bowen developed the concept of the emotional triangle which is defined later in this chapter and explained at length in Chapter II (Bowen, 1978). This concept suggests that a pet focus family emotional process can be significantly affected with a serious threat to the well being of an important family pet. With family equilibrium threatened, pet owners are predictably going to interact differently concerning their pet than under normal circumstances. What the emergency veterinary clinician is likely to face is a family in this disturbed state

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seeking treatment for their pet. Treatment is confounded in these situations since the clinician is required to interact with the upset pet owner in order to adequately render treatment (McCullock, 1981).

Wessells has addressed the similarity in emotional process of the veterinary crisis above described and a family seeking psychotherapy for adolescent behavior problems. He observes in the parallel emotional processes the opportunity to draw skills and knowledge from family psychotherapy, developed to treat adolescent behavior problems, to aid in the training of veterinarians. Wessells contends that job stresses can be reduced for veterinary clinicians if they are trained to handle these crises more effectively (Wessells, 1981).

While the literature above cited does not clearly state a need for this research, it lends theoretical support to approaching the problem of veterinary instruction in the manner to be described later in this chapter. With theoretical support for the training program, there does exist a need to empirically evaluate whether or not the program adequately addresses the need.

**Theoretical Rationale:** Since interactional situations between pet owners and veterinary clinicians were reported to be stressors, a model for training was needed that addressed communication patterns. Further the model needed to conceptualize the pet problem in larger terms of how it affected and was affected by the family. The latter required thinking of the presenting pet focused family as a relationship system. Bowen Family Systems Theory was used to draw material for the training program. Bowen theory offered several advantages. It explains problems in families in a systems context. It is a highly developed theory for
explaining emotional process in general and family emotional process specifically. Bowen theory is teachable and it is relevant for the clinical applications required for this research.

**Statement of the problem:** The theoretical discussion outlined earlier suggested the posing of the following question: Do veterinary clinicians receiving a Bowen Theory based stress reduction psychological education program experience a reduction in work related stress?

**Sample and data gathering procedures:** For the purpose of addressing the above question, the training program was administered to the staff of the emergency veterinary clinic situated in York County, Virginia. This clinic is referred to as the treatment clinic. The clinic not receiving the initial training is referred to as the control clinic. It is located in Virginia Beach, Virginia. The control clinic has been offered the training, having completed their function as a control group in the research. The training was administered in five three-hour weekly sessions. Times were selected during non-work hours convenient to the clinic staff. A location away from the clinic facility was selected based on availability and convenience. One role play situation was enacted by each trainee at the beginning of the first session and one at the end of the last. The role play situations were scenarios of two difficult pet owner-veterinarian encounters, which were obtained from veterinarians in a survey conducted during the pilot training experience. All trainees in both groups enacted both role play scenarios. Each scenario lasted for five minutes. Actors were hired to role play pet owners for both the pre and post training scenarios noted above. From the list of scenarios obtained in the pilot study, two were
selected based on their similarity in providing the "clinician" with equally stressful situations. They were judged to be equally stressful for the clinician by a panel of expert raters who reviewed sample videotapes of the enactment of each scenario. This procedure will be addressed in detail in Chapter III. The selection of which scenario was to be used for a pre test measure and which for a post test measure were done randomly. The actors were trained on their roles in each scenario so that each actor could improvise from the specific situation of each scenario. While actors did not go by a script, the content of each scenario was outlined in advance with the actors and was remarkably similar in the role plays for each of the ten subjects who role played with the actors. The trainees were unaware of the problem they would face in each role play. The role plays were video taped so that at a later date they could be randomly evaluated by trained raters for empathy, using the Carkhuff scale for empathy (Carkhuff, 1959). Immediately following the role plays, both pre and post training, the trainees were required to take a paper-pencil questionnaire which measures state anxiety. Also administered after the pre training role plays only, was a questionnaire that measured trait anxiety. The control clinic received the same measures to coincide in time with the pre and post training measures for the treatment clinic.

**General hypotheses:** It is expected that veterinary clinicians participating in a stress reduction psychological education program based on Bowen Theory will experience pet owner-clinician interactive behaviors as less stressful.
a. There will be a reduction of state anxiety from pretraining to post training measures for the treatment clinic not observed in the control clinic.

b. There will be an increase in the rating of empathic responses from pretraining to post-training measures for the treatment clinic not observed in the control clinic.

**Definition of Terms**

It is necessary to define terms in order to explain the nature of the training packet contained in the index.

**Family.** Using the term "family" as it relates to veterinary crisis refers to one or more human caretakers who have an emotional relationship with a pet that is characterized by either emotional closeness of the need for emotional distance.

**Emotional Triangle.** "Emotional triangles" refers to a concept developed by Murray Bowen in which family relationship process can be understood (Bowen, 1978). This term refers to the ability of two people to maintain emotional closeness while avoiding intimacy by the use of a third person, concept or idea as a common object of their focus.

**Over Responsibility.** "Over responsibility" is a term which refers to an expectation of one's self on a feeling and/or cognitive level to control actions of others, situations, feelings of others or anything beyond one's control.

**Anxious Pet Owner.** "Anxious pet owner" refers to owners of pets who are receiving emergency veterinary treatment, or actors simulating this role. Owner behavior in these cases is emotional and judged by the clinician to be in response to animal problems.
Emotional Process. "Emotional process" refers to the feeling parts of communication that ebb and flow in relation to the sensitivity of the topic under discussion.

Clinician. "Clinician" refers to professional veterinarians, with DVM degrees, and certified paraprofessional veterinary technicians.

Pet Owner-Clinician Interactive Behavior. "Pet owner-clinician interactive behavior" refers to those interview behaviors, either real or role played, that are characterized by anxious pet owner affect, focus on a pet crisis and requirement of the clinician to engage in dialogue with the pet owner.

Work Related Stress. Veterinary clinician "work related stress" refers to the anxiety experienced from pet owner interactions or anticipation of pet owner interactions as reported by the trainees.

Stress Management Program. Any terms alluding to a stress management program for veterinary clinicians refers to the presentation, in its entirety, of the syllabus outlined in the appendix.

Child-Focus Family. A "child-focus family" is a specific example of triangling involving parents and a symptomatic child. For purposes of this study, the concept is expanded to include a pet (i.e., pet-focus family).

Limitations

The results of this study may be generalized to other emergency veterinary clinics that are similarly staffed, operated and serving a similar population of clientele. The results also may apply to conventional veterinary practices; however, the absence of a continuous flow of crisis cases would most likely tend to mute the effect of such training in a conventional setting.
Summary

The subject of this research has been introduced. Through the citation of related literature, a theoretical basis for the study has supported the need for this research. Also based on the cited literature a theoretical rationale has been selected that will meet the unique requirements for the training. The procedural aspects of the research have been explained as well as a listing of definitions of relevant terms as they relate to this work. General hypotheses have been outlined and limitations of the research explained.

What will follow are: In chapter two a review of the literature on the Human/Companion Animal Bond, family psychotherapy and other literature related to the content of the training and execution of the research effort. In chapter three research methodology will be explained at length. Areas addressed will include population selection, procedures, instrumentation, research design, statistical analyses and specific hypotheses. Chapter four will outline the statistical results as they relate to the hypotheses. In chapter five the statistical results will be discussed along with implications for future research and training. Finally, limitations and generalizability will be addressed followed by concluding remarks on the nature of this study.
CHAPTER II

Theory

To begin a review of the literature, attention must be given to what is being called the human/companion animal bond. This is a term recently coined in the veterinary and psychiatric literature which describes the area of study of man's attachment and interaction with companion animals.

Michael Fox offers the distinction of three relationship patterns that exist between human and non-human animals. The first he calls Object-Oriented Relationships. In this category an animal is kept for its ornamental, symbolic or monitory value much as a toy or piece of furniture. This type of relationship is absent of much emotional significance other than the sentiment one might hold for a cherished object (i.e., a piece of furniture or other inanimate object of intrinsic worth). The second relationship pattern Fox describes are Exploitative, Utilitarian Relationships. These relationships are characterized by the use or exploitation of animals for the exclusive benefit of people. In this category are included animals maintained for biomedical research, animals used agriculturally as food converters for human consumption and animals for any utilitarian use such as guard dog or bird dog. Here again this relationship category is largely devoid for the human of emotional significance of the non-human animal. The third pattern described by Fox is the Need-Dependency Relationship pattern. In this category animals are viewed as a source of satisfaction for various human emotional needs and dependencies. Fox contends that this type of
need-dependency relationship is the primary reason people have pets. He also views this as a common underlying emotional mode in many relationships between people.

In characterizing these differences in relationship patterns Fox states:

Because of the emotional investment and dependence, a need-dependency relationship differs significantly from object oriented and utilitarian relationships and is best exemplified by the way in which the individual or family responds to the pet when it is sick or after it has died or gotten lost. (Fox, 1981)

This distinction in the nature of human and animal relationships has previously been addressed in the literature as it relates to the role of the veterinarian. Bryant and Snizek suggests that significant difference exists between owners of large animals and pet owners. The former is seen as relating to the animal and veterinarian primarily around a profit motive framework. The pet owner on the other hand has a far greater emotional tie to the pet and consequently approaches a veterinarian from an entirely different perspective than a large animal owner. Bryant and Snizek believe that the anthropomorphic conceptualization of the pet as a child is often reinforced by the veterinarian in his behavior towards the animal. When the pet is ill, the owner is as likely to call the veterinarian for the illness as he or she would seek medical help for a child. The authors believe that since the pet is viewed as surrogate offspring or is perceived as a family member, costs of service is seldom an issue.

Conversely, the authors point out that because the pet is often viewed as a family member, pressure is placed on the veterinarian to demonstrate an artificially solicitous bedside manner when treating the animal (Bryant and Snizek, 1976).
Due to the nature of this study, the focus of this section of the literature review will be limited to man's relationship to animals described by Fox as need-dependency relationships and in current literature as the human/companion animal bond.

Boris Levinson examines pet ownership from a developmental perspective. His emphasis is on aspects of pet ownership that facilitate healthy human development. Levinson contends that the personality development of one who has an animal companion, if the animal plays a significant role in his life, will be somewhat different from the individual who does not possess animals (Levinson, 1978). Levinson believes that certain personality problems or developmental tasks are salient at particular periods of the life cycle. In dealing with these problems Levinson sees people turning to a pet as one resource among many. The significance of the pet has to do in part with the number of inner and outer resources available to the individual in his growth struggles. Levinson describes the impact of a pet on a family in the following quotation:

> When a pet is introduced into a family, the entire climate of family interaction changes and becomes more complex. Not only does each member of the family interact with the animal in his own characteristic way, but family members interact with each other over the pet. Feelings of rivalry, possessiveness, jealousy can emerge just as with the advent of a new child or sibling. (Levinson, 1978, p. 1033)

Levinson outlines how at different developmental points in life pets have the potential to assume importance to people. Levinson observes that not every child is the recipient of what Rogers calls unconditional positive regard (Rogers, 1959). Since pet animals are
accepting creatures and hold no ego ideal for a child to meet, a relationship with a pet may be the primary one for some children to experience complete acceptance. Care of a pet by a child enables the child to behave responsibly in a relationship. In the case of the mother who finds her child's increasing independence a threat to her need to be needed, developing a relationship with a pet often serves to make the transition less painful. For some parents, displays of love and affection for their children is most difficult. In such cases, the children are often able to develop an affective relationship more easily with a pet.

In the instance of preparing a child for the birth of a sibling, Levinson contends that the child with a pet can experience the attention and preference of a pet at a time when he feels unloved and unlovable.

Finally, Levinson observes that elderly people, whose ability to provide nurturance and thus enhance their self-esteem is lessened by the distance of children and family members, often meet many of these needs in a relationship with a pet. Consequently, it is possible at any developmental stage for a pet animal to become highly significant to the person in the relationship with the animal.

E. K. Rynearson examines pathologic pet/owner relationship patterns from the construct of emotional attachment. Rynearson contends that specific patterns of pathogenic parenting have the potential to arrest normal development and fixate one at a regressed stage of attachment. He suggests that pathogenic parenting effects attachment needs in one of two ways. This is manifest in relationships through a dependent's craving for nurturance. Rynearson contends that this need for
nurturance will show up as what he refers to as "anxious attachment." The qualities of this state are a constant apprehensive anticipation of separation from the attachment figure. Attachment behavior appears as clinging, overdependence in a relationship. This type of need for nurturance is the product of parenting which frustrates the normal development of attachment through actual or threatened abandonment or rejection. The other manifestation of the frustrated need for nurturance will be seen in what Rynearson calls "compulsive care giving." This involves a similar fear of separation but the coping behavior is reversed. Such care giving has a forced quality and directed at others who neither seek nor welcome the caring.

In either form of the over-determined need for attachment there exists an underlying developmentally induced distrust. Rynearson states that this distrust of human attachment becomes generalized and contributes to the intense displacement of attachment to the pet who is consistently receptive and unconditional as a source and object of caring.

The following brief quotation from Rynearson addresses the importance of the pet animal as a repository of narrowly channeled human attachment needs in the pathological pet/owner relationship:

It is the aliveness of the relationship that is crucial—a vital, reciprocating balance of attachment. Because of this intense investment, separation from or loss of a pet can create complicated and enduring psychiatric reactions. (Rynearson, 1978, p. 551)

In his article Rynearson offers three case studies that highlight the relationship of attachment needs and the intense relationship which can result when such needs are displaced on to a pet. Since the
dynamics are similar in each case study, only one will be highlighted here. Rynearson was seeing a 32 year old divorced woman following a suicide attempt. The family history revealed that she was emotionally distant from her father and brother. The patient was left "dependent on her mother" whose chronic alcoholism and borderline psychosis created an atmosphere of gross inconsistency. There appears to have been periods of over closeness and reactive distance between the patient and her mother. The two were able to come together around caring for the family dog. Rynearson believes that through the dog the patient and her mother were able to maintain an indirect attachment. It appears that closeness was gained in their relationship by caring for the dog and distance achieved by fighting over the patient not caring for the dog to the level of her mother's expectations. The patient's marriage came to an end when her husband attempted to get the patient to show him the same degree of affection she showed her dog. Following her divorce, the patient moved into a house near where her divorced mother lived. After a fight with her mother over care of the dog, the patient killed the pet and committed suicide.

Rynearson explains this process as operating by the patient's distrust of human attachment being heightened during times of stress, thus having the consequence of intensifying the owner-pet relationship. He views the pathology of this process as being the narrowly channeled focus of attachment serving to diminish mature human attachment and interaction.

Rynearson contends that pathological displacement transformed in this manner may serve the purpose of "sustaining projective
identification" (Rynearson, 1978, p. 553), which allows one to meet attachment needs while avoiding vulnerability inherent in meeting those needs through interpersonal relationship. Secondly, such displacement represents a "symbolic intermediary" (p. 553), by which the pet becomes an attachment figure through which a family can indirectly interact attachment.

Kenneth Keddie explores the interpersonal aspects of the family that develops a pathological pet/owner relationship. Keddie makes the observation that industrialization has had two alienating effects on Western society (Keddie, 1977). Through urbanization which accompanies industrialization man has been robbed of his connection with nature in a direct sense. Secondly, the mobility of industrialized society has cut many nuclear families off from the supportive aspects of their extended family. In such circumstances the domestic pet comes into its own. Keddie contends that it is easy to understand how a pet can become elevated from simple companion to surrogate relative. Keddie cautions that those who do develop such a special relationship with their pet put themselves at risk from a mental health point of view. With the death of the pet or the necessity to "put the pet to sleep" the owner is likely to experience a sharp emotional reaction.

Keddie offers three case studies in which women's reaction to the death of their pet resulted in the need for psychiatric treatment. Keddie points out the following characteristics common to each case: 1) the patients were women, 2) the pets were dogs owned for at least 13 years and in the care of the patients, 3) on an unconscious level the pet represented for each patient a surrogate relative, 4) there was no
previous history of psychiatric illness, 5) symptoms occurred immediately after the pet's death, 6) psychiatric treatment was effective.

One of the case studies will be paraphrased here. A 56 year old woman became a dog breeder after the infant death of her third and last child. Her marriage was less than satisfactory and her two eldest children were out of the home. The patient developed a close relationship with one particular dog over the years to compensate for the distance in her marriage. When the dog died, the patient became depressed. Her depression was accentuated by her view that her husband thought her symptoms were imaginary. After a brief residential treatment program, the patient improved and developed a new closeness with her remaining family of dogs.

The literature on the human/companion animal bond has a limited number of empirically based studies. Some of the most significant research is being conducted at the University of Pennsylvania's Center for the Interaction of Animals and Society. From that group, the work of Aaron Katcher is noteworthy in its approach to the problem. Katcher's research studies the human/companion animal bond by observing the effects of the bond on the course of human diseases and physiological function. Katcher studied the effects of pet ownership on the survival of persons hospitalized for coronary artery disease. The intent of the research was to study the effects of social isolation on patient mortality. In this regard patients were questioned at the initial interview from an inventory of fifty items which addressed issues of social support and isolation. Pet ownership was included among the items. It was expected
that pet ownership might account for some of the variance in mortality; however, the results were remarkable in this regard. The study included an n=39 for the non-pet owning group of patients and an n=53 for the pet owning patients. After one year from hospitalization the mortality rate for non-pet owning patients was 11 whereas the mortality rate of pet owning patients was 3. The statistical significance was Chi Square = 8.9 p<0.02. Katcher concluded that in their white subjects, the presence of a pet was the strongest social predictor of survival for one year after hospitalization. Due to the large amount of social data collected in addition to indexes of physiological disability with the patients, it was possible to conduct a multivariate analysis on the data. The findings from this analysis were:

<table>
<thead>
<tr>
<th>Variable</th>
<th>% Variance Explained</th>
<th>Significance of Addition (p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiological severity</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Physiological severity + pet ownership</td>
<td>23.5</td>
<td>.004</td>
</tr>
<tr>
<td>Physiological severity + pet + age</td>
<td>24.9</td>
<td>NS</td>
</tr>
<tr>
<td>Physiological severity + age</td>
<td>21.9</td>
<td>.015</td>
</tr>
</tbody>
</table>

These findings led Katcher to make the following observation:

"... Most importantly the effect of pets was not present only in those people who were socially isolated; it was independent of marital status and access to social support from human beings.

This research finding suggests to us that pets may have important effects on the lives of adults that are independent of and supplementary to human contact. (Katcher, 1981).

Questions can be raised about possible selection bias as well as racial aspects accounting for variance. However, given that this is
the first empirical work in this area, Katcher's findings are provocative of further study on this aspect of the human/companion animal bond.

The work of Ann Cain looks at interpersonal aspects of pet ownership. Based on the previse that pets are humanized in our society, Cain set out to determine what is the role of pets in the family system. She developed a sixty-one item questionnaire which asked family systems type questions that would provide an accurate description of the pet's role in the family. She worked from a sample size of sixty-two who returned questionnaires. While Cain's study is one of the few works examining pets and the family which is empirically based, the study has some serious flaws. Chiefly data collection methods were such that no conclusion can be drawn as to the generalizability of her findings. Her population was drawn from an eleven state area. Numerous mental health professionals in those states distributed the questionnaires to any families with pets wishing to participate. It is unclear if participants were families seeking help for emotional problems, friends and colleagues of the professionals or both. Whatever the case, there is a strong likelihood that sample bias exists. Secondly, wording of some questionnaire items appears suggestive of a desired response pattern (i.e., "How important . . ." implies there is an existing level of importance). Recognizing these limitations, her study warrants inclusion in this review given the scarcity of empirically based research in this area. Some specific items from Cain's work are highlighted here:

49% of respondents reported naming their pet a human name in lieu of a pet name (i.e., Jack in lieu of Rover).
10% of respondents reported acquiring the pet to replace a person or another pet.

60% of respondents were aware of pets being an object of disagreement among family members.

The following is a rating by the percentage of respondents favoring each category in response to the question, "How important is your pet in the family?" The choices and response percentages were:

- Extremely Important: 7%
- Very Important: 55%
- Important: 10%
- Moderately Important: 8%

66% of respondents listed significant family events occurring in close proximity to pet acquisition.

87% of respondents consider this pet a member of the family.

8% of respondents reported feeling closer to their pet than any human family member.

48% of respondents offered direct examples of how their pet was emotionally triangulated into the family relationship system.

Cain's findings suggest that a high percentage of her respondents have incorporated their pet into their family, lending support to the supposition of the humanization of pets by our society (Cain, 1979).

A second empirically based study which looks at the interpersonal aspects of the human/companion animal bond was conducted by Peter Messent. Messent contends that pets serve the function of "social lubricant" for interpersonal contact between owners and other persons. To study this phenomenon, Messent developed a system of observing and rating human pet-walking activity on a number of dimensions. He contrasts interactions with other walkers with owners who walked with and without their pets. In the case of this study, dogs were the exclusive
pet used. Forty walkers were recruited to take part. A total of eighty-eight walks were evaluated. Walks were conducted in London, a medium size town and a small village, all in England. Walks were conducted in parks, streets and subway areas. He broke down contact behavior with other humans on a rating scale from no contact to talking to owners with ratings in between like "looked at dog" or "slowed/ stopped." Lumping all categories of contact response together, Messent found that on a 2 X 2 Chi-squared analysis there was a significantly higher number of responses walking with the dog than without. (p 0.001). In examining the effect of locale there were significantly more responses in the part than in either subway or on the street (p<0.001). There were significantly more responses on the subway than the street (p<0.05).

Messent examined numerous other dimensions of the walks. Again using a Chi-squared analysis he found that the longer conversations occurred between walkers and other people who also had a pet with them (p<0.001).

Gender was also an effect on contact. Walkers were significantly more likely to speak to people of their own sex (p = 0.05). Messent went on to examine a large number of variables such as pedigree/non-pedigree, small/medium/large, male/female and neutered/entire. He also looked at the above in comparison to region (i.e., London, medium size city, small village) and gender of the walker. Significances were calculated using Mann-Whitney U-test where there were two variables compared and the Kruskall Wallis test for 3 or 4 variables. This was the weakest part of the Messent study since the limited size of his population makes the statistical findings questionable due to the extremely
small size of some of the variable groups. For that reason, the tables for this section have been omitted.

Messent concluded that the findings of the study provide clear evidence to support the view that pets have a function of "social lubricants" for the typical dog owner. He acknowledged the significance of other variables such as region, walking route and gender of walker. Messent indicated his inability to identify what quality exists that enables the pet to serve as "social lubricant." He speculates that other factors, such as a child in a pram, might equally have facilitated social interactions (Messent, 1981).

To complete this section of the literature review, two articles will be examined that inferentially address the human/companion animal bond. The significance of these works are as much in their process as their findings. The first article by anthropologist Jay Ruby is entitled "Images of the Family: The Sumbolic Implications of Animal Photography." Ruby's article reports on the methodology and preliminary findings of a research effort designed to produce an ethnographic description of the socio-psychological role or function of pets for their owners as evidenced in the content and process of pet photographs. In developing an instrument to assess the place of pets in the family through pet photographs, Ruby has considered numerous variables. Some are: who takes the photographs; under what circumstances are they taken; how are they consumed (i.e., displayed prominently, left in a drawer, etc.); who/what is pictured; frequency of who/what is pictured; content or arrangement of subjects in the photographs. Secondarily Ruby looks at the motivation for the photographic act. He contends that importance
of family photographs are to: (1) Document important events in a family's history. (2) Inherent in the social act of taking the photographs. Or (3) To serve as a memory aid to elicit conversation. Through this third reason for picture taking, Ruby is using photographs to gather data about the emotional importance of pets for their families. One aspect of his study will be to compare pet picture taking/consuming behavior with that of human picture taking/consuming behavior. Ruby's preliminary findings are first, people regard pets as members of their family. Secondly, a hierarchical relationship exists of adult-child-pet. Ruby believes pets are regarded as infants that never grew up. Photographically they occupy the role of pre-verbal infants in family pictures (Ruby, 1981).

The second article with inferential importance to the human/companion animal bond is a theoretical/case study paper addressing photographs in family psychotherapy. In this paper Alan Entin examines family emotional process on the same criteria addressed by Ruby. Entin's work varies from Ruby's in that Entin adds the framework of Bowen Family Systems Theory to add meaning to the emotional process depicted in the photographs and the act of photographing. Since the next portion of the literature review will address family systems theory, that portion of the Entin paper will be omitted here. In examining Entin's work with that of Ruby's, the following quotation from a case study by Entin is helpful:

In a three generational photograph, for example, taken about 18 months prior to discussion, the grandfather-photographer wanted a picture of his son and daughter with their spouses and children. This large family constellation grouped themselves as four separate units. The daughter was photographed with her husband, while their children were with the grandparents. The son formed
another unit with his arms around each small son, while his wife was apart from them, holding the family dog. At the time of the photograph the meaning was unclear to the family. At the time of the session the message was clear. The latter couple had been divorced with custody of the boys awarded to the father. The mother got the dog! While pictures cannot predict the future, they may suggest changes which are operating in the family relationship process which may surface in some form in the future. They can be, at least, indicators of the emotional climate in the family. This example also illustrates the role of pets for the family and how they may function as part of a triangle in a family. (Entin, 1982).

The needs of veterinary clinicians previously noted suggest a theoretical basis for the training that deals with interpersonal skill aspects as well as a focus on interpersonal dynamics. The literature on pet ownership has numerous references to pets serving the interpersonal role of children in families (Katcher, 1981; Gaine, 1979; Levinson, 1965; Wessells, 1982). It follows that a training model based on family systems theory would address both interpersonal issues and family dynamics. Training for veterinary clinicians in family dynamics is useful in two respects. Learning to intervene with the family is believed to help the clinician more effectively handle anxiety generated in the pet owner/veterinary clinician interaction (Wessells, 1979). It may further serve the purpose of facilitating better pet treatment and follow-up by addressing how the family deals with sick members.

Fredericks and Mundy have described a tendency in some families to covertly support what they call the "sick role." This becomes manifest in well family members becoming over-reactive to sick family members in the direction of being too helpful. They contend that this interpersonal pattern sets up a relationship in which one member is prone to sickness to gain attention from other members and stabilize the relationship. Though Fredericks and Mundy refer to human family members,
it may be relevant to families with injured or sick pets if the pet is an important "family member." They contend that teaching family dynamics to health care professionals helps contend with the "sick role" issue that impedes treatment and recovery (Fredericks and Mundy, 1977).

In addition to focusing on the family as an interactive unit, systems theories contend that emotional stability in the family is threatened by significant symptoms in any member (Bowen, 1978). In many instances pets are humanized by families and assigned an important interpersonal space (Caine, 1979). Owner anxiety can be readily understood as a threat to family homeostasis in the face of a serious veterinary problem (Wessells, 1981). In addition to offering a good explanation of family interaction around a pet crisis, family systems psychotherapy methodology may offer some special features of intervention well suited for dealing with a family crisis precipitated by a pet emergency. The problems encountered by the clinician in a pet/family crisis are one of trying to gain information and support from anxious family members. This becomes necessary since the identified patient (i.e., the pet) is non-verbal and a passive participant in the treatment process (Wessells, 1982). This curious problem has a parallel in the human health services as the following quotation about the evolution of family therapy suggests:

The major thrust for the development of the family perspective was due to frustration on two counts, namely, from the attempts being made to apply conventional psychiatric principles to work with schizophrenic families, and from the attempts to deal with behavior difficulties and delinquency in children. (Guerin, 1976)

The problem populations alluded to in the quotation have in common with the family in crisis over a pet, an identified patient who also is
usually non-communicative and at best a passive participant in treatment. Conventional psychiatric principles were ill-suited for intervention with these problem patients; therefore the family was seen as a suitable treatment unit. This necessitated the development of a new methodology for family intervention. Clearly the goals of intervention vary from pets to people; however the methodology of family intervention appears relevant for the veterinary clinician making an intervention with anxious pet owners (Wessells, 1982).

As noted in Chapter I, the theoretical rationale for this study was drawn largely from a specific model of family systems theory called Bowen Theory. The remainder of this portion of the literature review addressing theory will deal with an in-depth review of those aspects of Bowen Theory relevant to this study. Bowen developed the concept of the emotional triangle which is defined in Chapter I (Bowen, 1978 and Fogarty, 1973). Triangles involving an identified patient support close­ness in dyads that are required to interact with the identified patient. So long as a twosome can focus on an identified patient, energy and awareness is diverted from relationship issues that exist in the two­some. This enables the twosome to continue a relationship while possibly not confronting serious issues between them. In a sense the identified patient functions to maintain homeostasis within a three person unit to which he is triangularly involved. Should the patient show signs of getting significantly better or worse, the impact is felt throughout the system, since the homeostasis is threatened (Fogarty, 1973). Should this triangular process involve two parents and a child, the marriage may feel threatened if dramatic shifts in functioning
occur with the child (Barragan, 1976). This is especially true if the "child symptom focus" has obscured significant marital issues. This process operates with varying degrees of intensity in all families. In families with significant symptoms such as schizophrenia, delinquency or serious neuroses the triangling process is more intense and favored over other mechanisms in the family to achieve homeostasis (Bowen, 1978).

Bowen's concept of the emotional triangle as it relates to the part symptomatic children play in a family is considered highly relevant for this study. To explore this construct in depth, two theoretical articles are included that elaborate on this aspect of Bowen's work.

In "The Child-Centered Family" Mariano Barragan examines one specific triangle which he defines as the child-centered triangle (Barragan, 1976). Barragan believes that anyone in a dual role may try and compensate for dissatisfaction in one role by overdeveloping the other. In the case of parents who have roles of both spouses and parents, Barragan suggests that dissatisfaction in spouse roles leads to overdevelopment of parenting roles. Satisfaction in the parent role may make up for the unhappiness in the spouse role. This overdevelopment of a parent role requires parental effort be directed at raising "perfect" children since the perfection of a child is a measure of the parenting role. The secondary gain here is that the "good father" or "good mother" can justify deficiencies as a spouse in the cause of sacrificing for the child's future happiness.

Barragan states that the more the couple centers on their children it becomes easier to avoid marital confrontations since there is always something about the child to worry about, criticize, correct or complain.
about. Barragan offers the explanation that this child-centered process explains the family's dependency on symptoms in the child for stability. He suggests that this type of centering on the child covertly supports the child having problems or at least being viewed as problematic.

Brandt and Moynihan in "Opening the Safe: A Study of Child-Focused Families" ascribe the following characteristics to child-focus families (Brandt and Moynihan, 1972):

1. Excessive concern
2. Severe dysfunction of the child
3. Difficulty in the family to look beyond the child to comprehend the dysfunction.
4. The difficulty of the family to effect change.
5. The inability of the family to comprehend the family as a relationship system with many functions other than child care taking.

The authors view the child-focus family as a closed system in the sense of the family being a closed container in which events, activities, and experiences are restricted. They contrast this to what they describe as an open system. The open system is characterized by change from outside being sought to the extent that it can increase or sustain the individual identity of family members.

Brandt and Moynihan indicate that focus on a given child comes as a consequence of the family viewing the child as in some way "special." This could involve problems at school, the only boy in a family, being born during an anxious period in the family chronology, a serious illness or health problem or any set of circumstances that converge to identify a given child as special.
The authors identify six patterns of child-focus families. The first is the Peace-Agree family in which conflict is ardently avoided. Parents are seen as always agreeing and never fighting. They could be heard to make statements to the effect "if it weren't for Johnny everything would be perfect." The second pattern is the Conflict-Disagree in which the parental conflict gets manifest around a child issue so that the child becomes incorporated into the parental argument. Dialogue in this family might have one parent criticizing the other parent as being too harsh or neglectful or etc. of the child. Silence-Distance is a pattern in which a high level of tension in the family is tolerated by emotional distance and no communication with symptoms in the child existing as an indicator of family tension. Nursing-Caretaking involves a parent becoming fixed in a nurturing role in relation to either the other spouse or a child. The script of the nurtured one would be a fixed "I need someone to take care of me." What is often overlooked is the need of the nurturer to nurture. The Just Like... Pattern enables a child to be characterized by a fraction of his personality and seen as being just like another family member or the opposite of a given family member. After such an assumption is made, behavior towards the child is colored by his being like another family member whose relationships are defined. The sixth pattern is the Child-Spouse Substitution in which a child gets treated as an emotional equal by one parent. This pattern often occurs in response to a divorce, parent death or parent absence on a chronic basis.

The authors suggest that all of these patterns serve the purpose of helping the family live with tension while avoiding change (Brandt and Moynihan, 1972).
In addressing considerations for therapy, Bowen contends that couples who obscure tensions in the marital dyad by maintaining a focus on a symptomatic child need to learn to relate separately about marital issues from child management issues. Consequently, a therapist's efforts in this family are to maintain emotional contact with the spouses while not taking sides with either (i.e., not defending or criticizing one spouse's parenting to the other). Bowen would have the therapist encourage each spouse to articulate their thoughts and positions around important family issues. The focus is not on expressing feelings of one spouse to the other. The goal of this therapy model is to have each spouse define his or her sense of self in the context of the nuclear and extended families. The attempt of this therapeutic process is to enable the spouses to recognize and resolve relationship issues between them that the child focus process has allowed them to overlook. In resolving these issues, the symptomatic child no longer plays a key role interpersonally in maintaining family homeostasis by retaining the symptom. Secondarily, the spouses are freed to develop viable parenting behaviors on which they can agree (Bowen, 1978).

The imperatives for therapists in this model are similar to those for the family. Therapists are encouraged to define their responsibility in all important relationships. This amounts to developing clear beliefs about one's responsibility in relation to one's parents, spouses and children. It also includes work and social relationships. In the case of work issues, the therapist must have a clear definition of the responsibility for change with respect to the clinical family. This requires that the therapist remain process focused rather than outcome
focused in defining job success. To clarify this point, the following quotation is cited:

It is reasonable for a physician to be responsible for and define success as providing "quality care". It is not reasonable to limit the definition of success to "effecting a cure," since physicians cannot be responsible for all environmental effects that influence the course of an illness. Many workers claim to define success more in terms of their own performance than on outcome. However, it is characteristic of hospital environments that in times of high anxiety it is easy to "feel responsible" for more than one can reasonably perform. (Wessells, 1982)

While the above quotation was not related specifically to psychotherapeutic concerns it illustrates the need to remain process focused in defining job success. The quotation also introduces the additional variable of the level of anxiety. Bowen contends that over responsible functioning is more likely to occur in the presence of high anxiety states than low anxiety states. For the therapist should he become reactive to the emotional forces present in the interview, he may begin to feel responsible for things that are beyond his control. The following excerpt dealing with over responsible functioning describes the outcome when the clinician becomes over responsive to the emotional forces present in the interview.

A clinician enters a therapeutic relationship with the expectation, either consciously or unconsciously, that he can affect positive change in the patient. The clinician, to some degree, measures his success with changes noted in and reported by the patient. The more vulnerable clinician is the one whose focus on outcome, client change, is high. In times of higher anxiety in the clinical setting, the vulnerable clinician is likely to become overly helpful, advice giving, and produce more interpretation than a less vulnerable clinician. Also, he fails to listen to the patient. Through his demeanor, the vulnerable clinician is likely to feed his own anxiety back to the patient, thus frustrating therapy. Not only are the patient's efforts thwarted, but the clinician comes to see his own efforts as failing, which adds to his own anxiety, and so the pattern repeats. (Wessells, 1982)
To tone down anxiety in the interview and reduce the likelihood of the therapist feeding his own anxiety into the therapeutic process in the manner noted above, Bowen has developed specific interview techniques. Bowen lowers anxiety in the interview by processing communication through the therapist rather than between the spouses and maintaining a focus on process as a topic for discussion (Bowen, 1978).

Summary and Rationale

The review of the literature thus far suggests parallels between the family emotional process of triangling referred to as the child focus family and the family emotional process involving pets. The Bowen model of intervention discussed earlier offers explanation of a technique to deal with the child-focus family who comes for treatment. In this regard, the literature suggests that veterinarians face a similar family emotional process as the family psychotherapists. Therefore, the rationale for this study was to equip the veterinarians with some of the skills and understanding outlined above for family psychotherapists.

The concept of the study was to teach veterinary clinicians family therapy skills and techniques drawn from Bowen Theory. It is believed that such instruction helps the veterinary clinician deal more effectively with anxiety in themselves as well as handle pet owner anxiety (Wessells, 1981). Bowen Theory has been covered earlier in the review of the literature. Therefore, it will not be addressed here. The section to follow pertains to literature related to the treatment.
Concept and Treatment

The training program syllabus is reproduced in the appendix. At this point, the material covered in the syllabus will be related to the theoretical model from which it was drawn.

The first sequence of the training encourages the trainees to view veterinary crises as a crisis for the family. To accomplish this, material from articles noted earlier on the relationship of pets and humans are presented (Keddie, 1977; Levinson, 1978; Rynearson, 1978; and Cain, 1979). This is accompanied by a general explanation of triangles and an explanation of child-focused triangles in particular. Sources for the presentation are drawn from references noted earlier in the literature review (Fogarty, 1973; Barragan, 1976; Bradt and Moynihan, 1972). A comparison is made of child-focus process and what might be referred to as pet-focus process. Through the examination of triangles the significance and appropriateness of pet owner upset is reinforced. Excerpts from Bryant and Snizek as well as Wessells, Levinson and Caine are noted. These studies were covered earlier in the literature review (Bryant and Snizek, 1976; Wessells, 1981; Caine, 1979; and Levinson, 1965).

The next sequence of the training focuses on the clinician's behavior and feelings. Through role plays, paper-pencil exercise and group discussion, intervention styles are examined. Emphasis is on identifying over responsible functioning; tracking emotional process in the interview; defining responsibility for self; and defining a self in one's work environment. These intervention issues are drawn from Bowen Theory (Bowen, 1978). Also covered in this sequence, not previously addressed in the literature review, is the issue of burnout. Herbert
Freudenberger, a noted author on this phenomenon, describes one who is burned out as "someone in a state of fatigue or frustration brought about by devotion to a cause, way of life, or relationship that has failed to produce the expected reward." He goes on to describe the process of burnout as serving to deplete oneself; to exhaust one's physical and mental resources; to wear oneself out by excessively striving to reach some unrealistic expectation imposed by one's self or by the values of society (Freudenberger, 1981).

This phenomenon has been a concern for mental health clinicians for some time. Larson, Gilbertson and Powell define burnout as the byproduct of working in a highly demanding environment without allowing for a balancing of experiences within the environment which could contribute to the therapist's differentiation (definition of self), identification and growth (Larson, Gilbertson, and Powell, 1973). They contend that it is important for the therapist to explore all facets of his needs within the context of his work. In so doing, he creates a work environment which encourages growth and self expression. While the authors allude to a psychiatric setting, the emphasis is on the need to define a self in one's work environment in order to work healthily. By defining a self in the work role the clinicians are able to better discriminate on a cognitive and feeling level problems they are and are not responsible for solving. The effects of an effort toward differentiation would be seen in the clinician's increased ability to take on less unnecessary tasks and feel comfortable about these self imposed limits.

Little has been written in the veterinary literature concerning burnout, or stress management. A search of the literature revealed
two articles on veterinarian burnout. The first article published in July 1981 entitled "Learning to Deal with Stress and Anxiety" is reviewed in the following section of the literature review (Wessells, 1981). The second article entitled "Burnout: Yes It Also Happens to Veterinarians" identifies the primary source of burnout for veterinarians as having to deal with the public (Stackner, 1981). This article depicts veterinarians as attempting to assume a multitude of varied roles (i.e., manager of a business, counselor, etc.) for which their training has not prepared them to perform. Veterinarians are advised to begin setting limits for themselves. They are implored to put their own needs first in lieu of behaving on the job constantly to meet the needs of others. While this article is consistent with much of the literature on burnout regarding etiology, prevention/cure, its treatment of the subject is superficial. The scarcity of articles on the subject and the superficial treatment of those existent articles suggest the need for empirically based research in the area.

The third training sequence deals with interview technique. Family therapy methodology was brought to bear in how to structure the process of the interview. Specifically, trainees were taught to process communication through them thus short circuiting emotional exchanges between the pet owners. This, combined with establishing a balance of when to focus on content and when to focus on affect was taught to tone down the anxiety level of interviews (Bowen, 1978).

Secondly, the work by Carkhuff concerning empathic response was addressed, to help trainees handle affective material presented by owners. Worksheets and the Carkhuff EU scale are included in the appendix (Carkhuff, 1969).
Finally, the work of Hanson on giving feedback was included to complete this sequence of the training. Hanson observes that one of the most confusing aspects of communication is that people tend to give feedback about other people's intentions rather than their behavior. Consequently, Hanson supports a model of feedback based around behavior. Hanson offers a guideline which can be followed to enhance the likelihood that feedback will be heard and understood. Hanson suggests a direct expression of feelings as opposed to indirectness. He suggests feedback include a behavioral description. It should have the quality of nonevaluativeness. Feedback should be specific. It should leave the person the freedom of choice to change. Feedback is most effective when it has immediacy. Finally, feedback should be motivated to help the relationship rather than hurt the person receiving feedback (Hanson, 1975).

Also included in this training sequence were exercises, role play and discussion on attending to affect in the interview setting. In this section material was drawn from the work of Carkhuff. One main contribution Carkhuff made to counselor/therapists training was a model for evaluating the level of empathic response of an interviewer. His five level scale is included in the appendix; therefore it will not be reproduced here. Carkhuff contends that a level 3 response is minimal for the development of a therapeutic relationship (Carkhuff, 1969). For purposes of this training goals were set lower than the Carkhuff criteria of a level three response. This was due to several factors. First, the goal of the trainees in their work is to offer veterinary treatment as opposed to developing a therapeutic relationship with pet
owners. Second, the level of sophistication of the trainees as interviewers coupled with the limited training time suggested that attaining a level 3 response pattern was unrealistic. The goal for this portion of the training was to have trainees function on a level 2 response pattern consistently in their simulated interviews. This amounted to teaching when to focus on content (i.e., pet problems) and when to focus on affect (i.e., owner feelings).

The final sequence of the training involves role playing scenarios frequently encountered in veterinary practice. Here the concept of triangles is used to evaluate the emotional process of the scenario to be enacted (Bowen, 1978 and Fogarty, 1973).

Population

The population for this study as noted earlier is an emergency veterinary clinic staff. While there is little available on emergency veterinary work, there is literature on stress in other health professions. Price and Bergen report their findings on stress for nurses in a coronary care unit in "The Relationship to Death as a Source of Stress for Nurses on a Coronary Care Unit" (Price and Bergen, 1977). The authors held the expectation that environmental demands for these nurses was their primary source of stress. In part this proved accurate insofar as nurses received conflicting expectations to be objective and firm while at the same time being warm and feeling. Nurses were expected to be ceaselessly alert in processing the incessant flow of objective data while still responding subjectively to the needs of the patient and his family.

The authors conducted a weekly hour long group for nurses on a given coronary care unit to understand and deal with stress. To the
surprise of the authors, the primary source of stress for the nurses, which emerged as themes in the group, were not environmental but unrealistic expectations the nurses held for themselves. Being in constant contact with seriously ill patients who frequently died left the nurses constantly reminded of their own mortality. As an effort to deny this reality, the nurses developed a sense of the need to control death and illness. Hence the nurses reported more stress with the patients who they termed as lingering. Nurses reported coping with the stress by throwing themselves into their work. At times when they were busy they were unable to focus on their own anxiety. The authors contend that the nurses ill-defined attitude towards death in a personal sense led to the unrealistic expectations for themselves and ultimately the stress. Price and Bergen contended that when nurses defined their relationship to death in a personal sense they were able to redefine their relationship to their patients and operate less over responsibly.

The nurses in the study reported subtle attitudes in the work environment that fed into their sense of over responsibility (i.e., the need to control death). In instructions from supervisors concerning the chance of any patient on the unit suffering a heart attack at any time, the nurses all reported a sense of being held responsible not only to respond appropriately to the emergency should it occur but also for the actual event itself. The following quotation describes best the process of over responsibility for the nurses:

Although they could not deny their limited capacity to control death, this did not necessarily signify for them that they had a limited responsibility for such control. Unconsciously, the boundary was blurred between their awareness of being responsible for the care of an ill or dying patient and their feeling of being responsible for the occurrence of the patient's illness or death. (p. 234)
A second study conducted with community hospital personnel charged with the care of critically ill patients offers similar findings to those of Price and Bergen. Using a self report questionnaire, the researcher attempted to identify cognitive belief patterns and interpersonal behavior patterns that added to the stressfulness of the work environment. This study was descriptive in nature. The results may be questioned on two counts. Selection was a problem in that questionnaires were returned only by those employees interested in completing the form. Secondly the percentage of return was quite low. Of an n of 125, only 10 percent were returned.

This study made the supposition that workers who consciously or unconsciously believed themselves to be responsible for events, actions of others or outcomes from work efforts which were beyond their control would operate with more work related stress than other workers. Further, workers who handled chronic conflictual or tension producing interpersonal situations by emotionally triangling in a third party would be subjected to more work related stress than other workers.

Recognizing the limitations of this study which were noted above, some of the findings were: The majority of respondents viewed job success in terms of approval from others, either a patient, co-worker or supervisor. They were highly outcome focused in that success often was equated with patient recovery. This type of mindset toward their work role predisposed them to feel and behave as though they were responsible for circumstances often beyond their control. The second area of investigation dealt with interpersonal aspects. Numerous examples were cited in which triangling occurred at and between several
levels in the hospital hierarchy. For purposes of this discussion, only one example will be cited that involved two hospital personnel and patients. In this example a nurse complained about a physician failing to attend sufficiently to the patient's needs. Rather than deal with the issue with the physician, the nurse felt responsible to "make up" to the patient attention that was absent from the doctor. The pattern depicted by this respondent was one of over work to compensate for perceived underwork in others (Wessells, 1982).

In a pilot study reported on in Veterinary Economics in 1979 with emergency veterinary clinicians concerning work related stress, similar findings to those of the Price and Bergen study were noted. Veterinary clinicians held unrealistic expectations that they must not only provide good health care but in addition please the owners of pets under their care. The results of this study indicate that feelings of responsibility for pleasing pet owners was a primary source of stress for the subjects. Data from the study suggested that, like the nurses in the coronary care setting, the veterinary clinician experienced less anxiety on the job when they could remain busy. The pilot study suggested the possibility that over responsible workers may avoid facing their own anxieties by redirecting their energies into work (Wessells, 1981).

In the three studies cited above with helping professionals who work with critical care patients, the interface of unrealistic expectations of workers' responsibility and questionable interpersonal relationship patterns were seen as common sources of job related stress. Methodology

The method of training employed in this study is described in the literature as psychological education. Ivey and Alschuler describe
psychological education as a concentration of carefully designed courses that inculcate aspects of mental health and personal adjustment. Psychological education is novel in the sense of bringing this body of knowledge to persons for habilitative rather than rehabilitative reasons. In "Psychological Education Is . . ." they contend that it is a new curriculum area in which people learn to understand themselves and more effectively get what they want (Ivey and Alschuler, 1973). They suggest that in addition to being presented as the content area of a course, psychological education can be employed in the presentation of more conventional course content.

The authors address the need to treat institutions as well as people since the former, they contend, must own some responsibility for the problems of individuals. In this regard psychological education can be directed at the institutional level with the goal of helping to develop more humanistically oriented institutions. In their article "An Introduction to the Field", Ivey and Alschuler offer four strategies inherent in psychological education that underlie its value. The first they identify as internalization. This goal of psychological education is to impart knowledge and skills designed to help the student cope with life. This is a long term goal which differs from conventional educational goals that focus on short term knowledge and/or satisfaction. Because of this difference, psychological education must be delivered by methods compatible with the stated goal.

The second strategy is to deliver the training at times that are compatible with developmental needs of the trainee. This applies to both children and adults. The authors contend that to present training
at a time ill suited to trainee needs will be inefficient irrespective of the quality of the presentation.

Ivey and Alschuler's third strategy is the use of eclectic procedures organized to teach a specific outcome is more effective than a single procedure used for a variety of problems.

Finally, they suggest the need to treat institutions as well as people if the problem is to be effectively addressed (Ivey and Alschuler, 1973).

The importance of the concept of internalization is addressed by Ivey and Alschuler in "Internalization: The Outcome of Psychological Education." They view this as the most important goal of psychological education. They contend that psychological education should help people internalize their own goals, their own ideals, their own use of skills and their own definition of self.

In an effort to assess the level of internalization, Ivey and Alschuler offer four suggestions. These have relevance whether they are used informally in educational assessment or as part of a formal research design. They suggest that any assessment take place a year after the training has occurred. They contend that such a delay nullifies the effects of the energy generated in the training experience that has only a short term effect on motivation. Secondly, they advise that the trainee be observed for voluntary applications of learning which come from psychological education exposure. Specifically they look for spontaneous applications from trainees in situations that do not necessarily demand the use of this skill or knowledge. Thirdly, application of the training to several life areas is an indicator of internalization. They
offer the example of trainees who may have received a psychological education course related to their work setting using the knowledge/skills with peers, family, children, etc. Finally, internalization is judged to have occurred if the trainees appear to enjoy their new effectiveness.

In the same article, Ivey and Alschuler offer five steps designed to maximize internalization:

1. Get the trainee's attention.
2. Provide a unified, intense experience of the skill, concept or motive being taught.
3. Offer a clear conceptualization of the skill, concept or motive.
4. Relate the learning to other important aspects of the trainee's life.
5. Encourage the trainees to practice in ways meaningful to them. (Ivey and Alschuler, 1973).

Weinstein in writing about a psychological education model he developed to better enable persons to identify alternatives and facilitate problem resolution comments:

We have been quite willing to train for scientific skills and attitudes toward the world "out there", while inner world transactions tend to be ignored. Our educational institutions devote most of their efforts toward having learners think and respond more carefully and rationally to such areas as history, science, math and so on, but rarely do they give that kind of attention to having learners acquire the skills, attitudes and explicit processes by which they might more carefully and effectively negotiate their self-to-self and self-to-others experiences. (Weinstein, 1973, p. 606)

Weinstein contends that one's self-concept is a cluster of hypotheses one has about oneself. He suggests that people get in
trouble by assuming these hypotheses to be accurate in lieu of checking them against reality. Weinstein believes that training persons to perceive more accurately their relation to themselves, others, and the world in identifying and checking out these hypotheses is helpful. Through such training people can learn to anticipate more accurately the phenomena of their personal experience, and develop the power to choose their own ways of being. Weinstein offers a cognitive model through which one can work through a set of personal observations. Through a sixteen week course, he hopes to systematize introspection (Weinstein, 1973).

Biggs and Funk developed a psychological education model to train para-legal personnel in arbitration methods. Their goal was to enable a staff of para-legal employees in the Los Angeles City Attorney's office, through skillful arbitration, to resolve legal complaints without the need of a costly court hearing. There were eight trainees. They were described as reluctant to participate in the training. Therefore, the training began by didactic presentation and gradually moved into the more threatening experiential components. The trainees met daily for two weeks. The final three days were conducted on an out of town retreat. The goal of the training was to enable the trainees to recognize the intra and interpersonal levels of process during an ongoing task. The content of the training focused on self awareness and communication components. Much of the work in these areas was drawn from Gestalt principles. Group process was employed as was role play of actual case situations.

The project statistics for the first six months of operation were supportive of the training effort. Five thousand eight hundred and
seventy-five cases were diverted during that time in lieu of being sent to court. This constituted a 95 percent diversion rate. If this rate continues, the researchers predict a savings of $125,000.00 per year through the use of this service. While these measures lack the rigors of a scientific experiment, they do offer support to the benefits rendered this trainee group through their psychological education experience.

An additional consideration to the numbers diverted is the trainee evaluation of the training experience. On completion of the training, the trainees were asked to evaluate the training on a subjective questionnaire. The overall finding was highly positive. Trainees viewed the strong areas of the course being in the communicative sequences. Especially helpful was the use of videotaping and play back to enhance the role play experiences. The areas reported as weak in the training were insufficient attention on dealing with the hierarchy and bureaucracy (Biggs and Funk, 1976).

An article entitled "Learning to Deal With Stress and Anxiety" has been previously addressed in the literature review (Wessells, 1981). It is included again in this section in order to highlight its use of psychological education methods in the training of emergency veterinary clinicians. This article is theoretical in nature. It was written to describe the formative stages of a psychological education training program for veterinary clinicians. The goals of the training were to equip veterinary clinicians working in emergency veterinary clinics with interview skills, comprehension of family dynamics and self awarenesses. This learning was thought to be necessary to handle adequately anxious...
pet owners who bring injured pets for emergency treatment. The training content is based on Bowen Family Systems Theory. The use of group process, experiential exercises and role play of case situations which were videotaped for review by trainees constituted the teaching methods during the five three-hour sessions. The training was offered on a weekly basis. At the time of the publication, the model had been employed only in a pilot project in which the effectiveness of the training was poorly measured. Subjective response from the trainees in the pilot study was quite similar to the findings in the Biggs and Funk study. Trainees considered most important the communication components of the training. Identified as least important were the self awareness components of the training. This suggested that the components on self awareness were in need of refinement.

An article entitled "A Model for Teaching Health Care Professionals the Components of the Family" has also been previously addressed in the literature review (Fredericks and Mundy, 1977). It is included again to briefly highlight its strengths and weaknesses as a psychological education model. Fredericks and Mundy have identified a number of issues on family make up and behavior patterns that relate to how illness and recuperation are handled in a given family. They describe the interpersonal pattern called the "sick role" which has been previously described in this paper. They also identify and describe a number of family types such as contractual, compulsive and familistic. Through these descriptions, behaviors of family members towards an identified patient can be understood. This material and other material not abstracted here make up the content of the training model suggested by the
authors as important information for health care professionals. This aspect, the training content, of the Fredericks and Mundy article is clearly the strongest point. Few works offer as comprehensive content on teaching family as the authors. Absent from consideration is any treatment of how this significant content can be best delivered. This remarkable omission tends to limit the usefulness of the model proposed by the authors.

The following article by Gluckstern is included because of the versatility of the training model developed by the author. Gluckstern was called on to develop a psychological education training model to teach parents to serve as drug counselors. She contends that the workshop design, training activities and evaluation aspects have implications for the training of other helpers.

The format developed by Gluckstern was a sixty hour program divided into three phases. Phase one included a structured encounter with emphasis on team building. Phase two focused on counseling skill development. Phase three included community development and change techniques. The structured encounter was a weekend session lasting roughly twenty hours. Experiential exercises were employed to promote social contacts, openness, sharing and identify problem areas encountered in counseling. The skill development phase of the training dealt with teaching drug information and counseling skills. For the latter, microcounseling was employed to teach specific counseling skills in lieu of the entire counseling process. Specific areas addressed were: attending behavior, reading of nonverbal cues, reflection of feelings, paraphrasing, and summation. Each skill was practiced individually as
well as in small groups. Each trainee had the experience of being both
counselor and client. Gluckstern used a combination of video and audio
equipment to support the skill training process. The community develop­
ment portion of the training was incorporated to address resistance in
the professional community to working with lay counselors (i.e., parents)
in addressing adolescent drug problems (Gluckstern, 1973).

In "Effective Psychological Education: A Sample Program with Evalu­
ation" Bergeson reports on his effort to evaluate the effectiveness of
a psychological education model which he developed. With an n=62 of
college freshmen divided 28 female and 38 male, Bergeson offered train­
ing designed to enhance self understanding and relationship skills. He
hypothesized that such training would enable these students to better
handle personal stress without the need to seek professional help. The
training was conducted in weekly three-hour sessions with a total con­
tact time of thirty hours. The content focused primarily on the develop­
ment of relationship skills. Employing pre and post testing using the
Shustrom's Personal Orientation Inventory which examines dimensions of
self actualization, Bergeson noted a significant treatment effect. The
level of significance ranged from .01 to .001 on ten of the twelve POI
scales. This led Bergeson to conclude that the training was an effec­
tive aid in students learning to cope with personal stress (Bergeson,
1979). The strength of his findings is weakened by his failure to use
a control group design and select a population randomly. While
Bergeson's study lends empirical support to the use of psychological
education, there are a number of additional ways his results could have
been strengthened. Bergeson could have followed these students on a
longer term basis. In this endeavor, he could look at other dimensions such as academic performance and social involvement to assess student coping skills. Acknowledging the weaknesses of the Bergeson study, it merits inclusion since it is empirically based and is similar in format and approach to dealing with the issue of coping with stress to this research effort.

Another effort to evaluate the effectiveness of a psychological education program was conducted by Nykogym and Simonetti. In "An Evaluation of Structured Experiences: How Effective is Experienced-Based Learning?" the researchers sought to use a structured group experience to help trainees overcome "Communication Apprehension." Communication apprehension was reported to be an interpersonal problem that adversely affected business men's ability to fully function in their work roles. The researchers conducted weekly training sessions focusing on communicative skill building as a means of overcoming communication apprehension. Working with a population of 80 business administration students who were employed either full or part time, Nykodym and Simonetti randomly divided the population into treatment and control groups. Using pre and post testing with the Personal Report of Communication Apprehension, the researchers used a T-test to assess treatment effect. A significant T=2.88 at the .005 level supported the effectiveness of the training to reduce communication apprehension (Nykodym and Simonetti, 1978). The researchers' use of a single self report instrument to assess treatment effect must be questioned. While this limited effort to measure treatment effect detracts from the weight of the findings, this study does represent an effort to empirically
evaluate the effectiveness of psychological education. As such, it adds support to the credibility of psychological education as a viable method of teaching mental health and communication skills.

While the above articles in the methodology section of the literature review deal with psychological education, specific techniques relevant to this research have only been superficially addressed. To complete this section of the literature review, two additional articles will be included which address these techniques in more depth.

In "New Approaches to Teaching Basic Interview Skills to Medical Students", the authors describe a training model which employs actors employed to simulate patients. Interviews by medical students with these actors were videotaped for later review by the instructor and students. The authors offered the rationale for this model. They contend that the more closely the demands of the instructional setting approximate the real world setting, the more effective and more broadly applicable the learning will be.

Of the 100 medical students and 50 physicians who have interviewed the simulated patients, the experience has rarely been reported to be anything less than totally engaging. The experiences were reported to be honestly demanding and free of artificial distractions.

The authors describe their method of preparation of simulated patients. Students with experience in drama were hired. They received from one to four hours of training. The training began with the development of a series of one paragraph descriptions of the general types of problems medical students confront. Each actor was assigned a problem they felt they could effectively portray. Each actor was then given
further details regarding the type of information needed and the manner they were to assume in the interviews. After time to assimilate the roles, the actors were each interviewed "in role" by an instructor for further refinement. Each actor was encouraged to be himself within the role and to react according to the impact the interviewer has on him.

The authors also address techniques for the preparation of instructors to review the tapes with the student. Since these instructors did not have psychotherapy skills, the training was directed at their awareness of the emotional process between simulated patient and medical student. Specific techniques were outlined on how and when to stop the tape and on how to give feedback (Jason, Kagan, Werner, Elstein and Thomas, 1971).

Helfer and Hess in an effort to assess the value of simulated patients trained three wives of students to simulate mothers of children with serious problems (i.e., a boy hemophilia, seriously battered child and a hydrocephalic child). The mothers were trained on factual as well as psychosocial aspects of each condition. Six senior medical students were selected at random to interview each simulated mother. The students were aware of the simulation. Each student was asked to rate the performance of the simulated patient on a scale from one to ten from "very unreal" to "no difference from real situation." A mean rating of 7.7 was obtained with a standard deviation of 2.7. To augment this portion, five medical students were trained to rate the performance of the interviewing medical students. The raters were trained on eleven categories of an interaction analysis until interrater reliability ranged between .75 and .90. Significant differences (p .05) were found
between individual interviewer performances. This was suggestive of the variance being more with the interviewers than the simulated patients (Helfer and Hess, 1970).

Summary of Research and Relationship to the Problem

The literature review conceptualizes the problem for veterinary clinicians in terms of family emotional process as described in Bowen Theory. Parallels are seen in the literature between the treatment triangles for family psychotherapists and emergency veterinary clinicians. Further, family emotional process described as the child-focus family has similar intervention implications for human and veterinary situations. Family psychotherapeutic skills that emphasize attending to anxiety in the therapist while interacting with the family suggest the notion of teaching veterinary clinicians family psychotherapy skills and methodology. The goal for veterinary clinicians who take the training is to help them cope with the emotional dynamics surrounding a pet crisis, thus reducing work related stress from pet owner-clinician interaction. Such training as noted earlier is extracted primarily from Bowen Theory.

The literature suggests the theme of over responsible functioning in emergency medical settings as a source of stress. As this relates to the veterinary clinician, stress is generated as a consequence of feeling and behaving as though one is responsible for pleasing the pet owner by curing the pet. This theme applies to the trainees who participate in the study and is addressed in the training. Finally, studies in the literature review suggest the appropriateness of psychological education methods for delivery of the training in this program. Specifically the literature defines as the goal of psychological education to train
people to live more effectively. The focus on communication and improved self awareness necessary for this study is compatible with the literature on psychological education and is designed to encourage a more effective professional life. The psychological education techniques and methods outlined in the literature are incorporated into this training model.

In summary, the literature is supportative of the conceptualization of pets and the human family as it is presented in this study. The literature further supports a theoretical basis for the training evolving from family systems theory. Finally, the literature suggests the appropriateness of a psychological education methodology for providing the training.
CHAPTER III

METHODOLOGY

A. Population and Sample Selection

Taking part in this study were staff members from two emergency veterinary clinics located in Eastern Virginia. One clinic served as the group to receive the initial training. The other clinic served as the control group. The former clinic will be referred to as the treatment clinic and the latter the control clinic. On completion of the training and evaluation sequence, the control clinic was offered the training, since the evaluative results supported the value of the training. Both clinics are situated in suburban parts of large metropolitan areas. They serve a similar clientele which comes from a socio-economic cross section of the city's population. The clinic hours are evenings and weekends in order to offer veterinary service during times conventional small animal veterinary practices in the area are closed. Both clinics offer treatment to emergency cases only.

Subjects were recruited from both clinics by similar means. The board of directors for each clinic was approached concerning their support for this research effort. Each board expressed their support of the study with the stipulation that participation be voluntary. Meetings with each clinic staff were set up to explain the nature of the research and ask for participation. Benefits of participation were outlined as being potentially helpful for the subjects in terms of their work performance. Their participation was also described as helpful to the completion of the research effort. Emphasis was placed on the
voluntariness of participation in an effort to quell any implied pressure that may have been inherent in board sanctioning of the project. Response was favorable from each group. Some attrition was experienced from each group between the time of the presentation described above and the beginning of the pretraining evaluation sequence. There was an n of five from each clinic. The trainees varied in education from veterinarians with degrees in veterinary medicine to technicians with technical training to technicians with only on-the-job experience. Ages in both groups ranged from early twenties to early thirties.

There are some problems in using a population of this nature. The size adversely affects any statistical significance that might be realized which is less than highly significant. Due to the treatment and control groups being drawn from naturally assembled collectives, there is also a threat to internal validity due to the possible interaction of selection and maturation. Also, mortality was a concern with such a small population. These issues will be addressed later in the chapter under the discussion of the design of the experiment.

B. Procedures

Data Gathering

At the first meeting, prior to delivery of the training, each trainee in both the treatment and control groups was asked to engage in one five-minute role play scenario. Present for each role play were two actors, a dog, the trainer and one trainee. Each scenario role played was videotaped. Once each trainee completed the role play they were asked to complete the state and trait anxiety questionnaire. Following the completion of the questionnaires, the training began. It
should be noted that this procedure was repeated after the last session of the training program. The only deviation to occur in the post training evaluation procedure was the omission of the trait anxiety inventory. This instrument provides a base line reading of anxiety which is minimally effected by acutely stressful situations. For that reason, it was unnecessary to re-administer the instrument in the post testing situation.

The role play scenarios used in the study were selected from an extensive list of "problem situations" volunteered by veterinary clinicians participating in the pilot study. Consultation with numerous veterinarians took place to select two "problem situations" between pet owners and veterinary clinicians that were judged to be equally as stressful for the clinician. To verify the equality of stressfulness of each scenario based on the two selected "problem situations" a modified interaction analysis of the two scenarios was made by trained raters. This necessitated the development of an instrument by which raters could judge the stressfulness of each scenario. In *Patterns of Human Interaction* Lennard and Bernstein outline methods to develop an instrument designed to perform an analysis of interaction process. Their methods are consistent with the work of Helfer and Hess which is reported later in this chapter. Lennard and Bernstein recommend the development of category systems as a means of making interaction process more manageable. The categories must be constructed from a sound basis in the theories that are brought to bear in the evaluation of the data. They suggest the categories be based as much as possible on judging observed behaviors. Rater training for interaction analyses entails
practice at observing verbal and non-verbal behaviors to decide into which category a given behavior is to be placed (Lennard and Bernstein, 1969).

For purposes of this study, raters were required to judge level of pet owner affect as a measure of the stressfulness of a simulated interview experience. The rating sheet is included in the appendix. It was developed to evaluate verbal and non-verbal behaviors. Voice pitch, voice level and body language were categorized. Specific descriptions were made of these behaviors so that they could be divided into categories of mild, moderate and intense affect. After training with the instrument two raters rated sample tapes of clinician/owner interviews. Inter rater reliability was established $r = .8, p < .05$ by the Pearson Product Moment Correlation.

Following the guidelines of Lennard and Bernstein, the categories mentioned above were developed from a basis in theories on human interaction and stressfulness that have been described in Chapter II. Therefore, the theoretical basis for the category system will only be briefly addressed here. In Bowen theory the basis for therapeutic intervention is to tone down the anxiety level in the interview setting as a means of enabling family members to define a self in the context of the family unit. Bowen contends that emotional fusion is likely to occur in the presence of intense affect. The effect of such fusion would be to inhibit family members from defining a self out of a need to protect the feelings of other family members. The tendency to protect the feelings of others sets one up to become overly responsible in relationships. One's efforts are taken up with attempting to please others rather than
one self (Bowen, 1978). As noted earlier, this posture is the basis for unrealistic feelings and beliefs of needing to control and be responsible for things which are not within one's realm of control. Literature cited earlier supports this posture as the basis for job stress and burnout (Freudenberger, 1981; Price and Bergen, 1977; Wessells, 1981).

This theoretical formulation supports the use of level of client affect as a measure of the stressfulness of an interview experience. Categorizing affect as described above was found to have face validity by psychologists and family therapists who reviewed the instrument. In using the instrument for this study, raters evaluated videotapes of each role play scenario. The interviewer in these tapes was the same for both tapes. She was not trained in interviewing; however, she was an experienced veterinary technician. She was unaware of the purpose of the experiment other than to record her in the role of veterinary clinician interviewing simulated pet owners with an injured pet. A T-test was conducted using the mean scores of the raters on both tapes. No significant difference between the means of the two scenarios was found. This finding lends support to the use of the pre and post training role plays in this study since the stressfulness of each is equivalent as measured by the interaction analysis.

Having established the equivalency of the scenarios used in this study, the training and evaluation sessions for each clinic staff was conducted in locations convenient to each prospective clinic. Members of each group had no contact with opposite group members during the period of time the study was taking place. To enhance the effectiveness of the control clinic, the evaluations of both pre and post training for
both clinics were scheduled to take place within the same twenty-four hour period.

The videotaped role plays were reviewed on completion of the training and evaluation sequences by raters trained on the Carkhuff scale for empathy. The videotaped scenarios were presented in a sequence designed to mix pre and post tapes to insure a blind rating by the raters.

The above data were evaluated in conjunction with the pre and post training responses to the state anxiety questionnaires, and the trait anxiety questionnaires. In order to review each trainee on each measure, a coding system was developed to preserve anonymity while enabling the three measures to be linked to a given trainee's responses. Trainees were asked to identify themselves by using the initials of their mother's maiden name.

The actors mentioned above were two mental health professionals each with an extensive background in drama and two large dogs with no acting experience. The actors entered into a written contract with the researcher. They received financial remuneration for their participation in the project. Their training for this study was conducted according to procedures previously cited in the literature (Helfer and Hess, 1970; Jason, Kagan, Werner, Elstein and Thomas, 1971). Each actor received a typed paragraph description of each "problem situation." They were then coached on specifics in three areas. They were given factual data about the nature of the veterinary problem. Next they were coached regarding psychosocial issues related to the pet crisis and their reactivity to each other. Finally, they were given specific interpersonal issues to incorporate into the content of each interview.
In each scenario the roles called for a man, woman and dog. The humans portrayed a married couple in each scenario who came to the veterinary clinic for emergency treatment. The descriptions of the scenarios used are included in the appendix. One dog was a mature German Shorthaired Pointer, the other a young adult Great Dane. The temperament and compatibility with humans was similar for each dog. The pointer was used with the treatment group and the Great Dane with the control group. The dogs received extra rations for their assistance. The actors were asked to treat each interview as an improvisation in that they were to naturally respond "in role" to the actual interview process. There was no formal script provided or specific coaching regarding dialogue. The actors were asked to respond "in role" according to their individual feeling responses to each interviewer. After time to construct their characters, the actors practiced each scenario numerous times. The practice sessions were conducted with a mental health professional serving as the interviewer. This interviewer was coached to focus on gaining information about the pet problem. He was asked not to show any special attention to working with the "owners" feelings. He was coached in this manner to afford the actors the experience and opportunity to react to insensitive treatment. Numerous practice interviews were conducted in the above manner. Each was videotaped so that the actors could view their performance and make any necessary refinements of their "character."

There were several features worth noting about the use of actors in the above manner. The content covered in all of the actual interviews was remarkably consistent. Through the natural flow of the interview
process the pet focus triangle became activated in all interviews. The peripheral interpersonal issues emerged with consistency in all inter­views. The tension level and pace of the interviews varied according to how each interviewer interacted with the "pet owners." Feedback from the subjects in both the treatment and control groups was validating of the authenticity of the interviews in comparison to real veterinary crisis situations.

The raters used to evaluate the videotapes for empathic responses were three mental health professionals who had former knowledge of Carkhuff's scale for empathy. After receiving training on use of the Carkhuff Empathy Scale, the raters were asked to rate a contrived video­tape segment which was not part of the study. From the data generated from rating the contrived videotape, interrater reliability was estab­lished. Using a Spearman Rank Order Correlation, inter rater reliability was established at .80 at the .05 level of significance. This finding was later revalidated by the analysis of the experimental data. The results of a two way analysis of variance which measured rater effect revealed F=0.052 at a significance level of 0.949. These findings sug­gest the absence of rater effect in explaining the statistically signifi­cant variance reported in Chapter IV. Data revealed that using the Carkhuff five point interger scale of the empathy measure, rater variance in scoring was less than .03. These findings lend strong support to the high level of reliability for the use of raters in this study.

The raters were required to rate each role-played interchange between the clinician and simulated pet owners on the Carkhuff Scale for Empathy. There is precedence for this method of rating. In Patterns of
Human Interaction Lennard and Bernstein describe a methodology for the study of human interaction. They offer the distinction of various units of interaction which are suitable for categorization and quantification. These units include the proposition, statement, exchange, triple and quadruple-exchange sequences. In their nomenclature, a proposition is a verbalization containing a subject and predicate, whether expressed or implied. A statement refers to an uninterrupted sequence of propositions. An exchange consists of two successive statements. In a dyadic group, an exchange consists of a statement by one person being followed by a statement by another. The more complex interactions in larger groups are evaluated with the triple and quadruple-exchange sequences. Since this study focused on the interviewer as the main source of investigation only exchanges were rated between the interviewer and either human actor (Lennard and Bernstein, 1969). Rating each exchange generated a total of 849 ratings from the twenty tapes rated from both groups. The videotape was stopped after each exchange to allow time for raters to score the response. The number of ratings per tape varied according to the activity of a given interview. Most averaged fifteen ratings; however, the same exchange was rated by each rater in every case.

Treatment

The training program included in the appendix was subjected to a formative evaluation. The following comments are included to describe the process by which the program was evaluated.

Thiagarajan, Semmel, and Semmel in their chapters on expert appraisal and developmental testing deal with methods of formative
evaluation of training materials (Thiagarajan, Semmel, and Semmel, 1970). The authors define formative evaluation as the evaluation undertaken for the improvement of the instructional material.

Expert appraisal is the first step in formative evaluation. It entails obtaining editorial feedback from various professionals for the improvement of instructional materials. The authors subdivide expert appraisal into instructional and technical categories in which for the former, appropriateness, effectiveness, and feasibility are considered; and for the latter, media, format and language are considered. The authors have developed a series of check lists that give a rater objective components of each of the above categories to consider and rate on a scale of positive to negative. Once the expert appraisal is completed, the authors suggest the training be tried out on a target trainee group. The purpose of this trial is to collect feedback to make the materials instructionally and motivationally more effective. The authors provide a matrix which reveals the procedure for conducting this part of the evaluation. The initial testing phase is called the initial developmental testing phase. It is oriented to gain feedback from a tentative version of the training packet. The target trainee population in this phase is selected less on their authenticity as compared to the true trainee population than on their ability to verbalize problems. When the packet is modified a number of times in this process and the results begin to become consistent, then the quantitative developmental testing is implemented. This measure is aimed at discovery of the trainee's attitude towards the content and format of instruction. Once consistent complaints about the package have been located and addressed then the
total package testing is done. This is accomplished by encouraging other colleagues who teach the same material to try out the package in the field. They are encouraged to make independent decisions on minor questions that may arise. Feedback is requested from them both during and after the time the training is being given.

This veterinary training program has received those phases of evaluation short of total package testing. Expert appraisal was provided by Garry Singleton, M.D., Clinical Instructor of Psychiatry at the Georgetown Family Center and Allen Entin, Ph.D., Family Psychotherapist, in private practice to evaluate the content of the training. Charles O. Matthews, Ph.D., Associate Professor of Education at the College of William and Mary was consulted to evaluate both content and delivery methods. Input from these sources as well as from the trainees from the pilot study led to changes in delivery sequence and delivery technique. This final version was used in the current research effort.

Through the use of formative evaluation, it was hoped that the threat to content validity could be minimized. The training program, in its present form, was presented in five three-hour weekly training sessions for the clinic staff members of the treatment clinic. The training was given at the same time of day each week. The locations were chosen based on availability of space and convenience to the trainees for both treatment and control groups. The time for the training was selected for the convenience of the trainees. The training incorporated didactic and experiential elements. Role play which was videotaped for playback and review as well as paper-pencil exercises were used. The syllabus for the training program and a list of scenarios appropriate for role play exercises are included in the appendix.
Ethical Considerations and Safeguards

All efforts were made to conduct the study according to the behavioral science guidelines of the Board of Professional Counselors for the State of Virginia. Trainees were not identified by name in any data gathered for evaluation of the study. A system of coding outlined above served to identify a respondent while preserving personal identities. Since "clients" were not involved, concerns for their cooperation, confidentiality, or reluctance were not an issue.

C. Instrumentation

Description, Reliability and Validity

The instrumentation for the study consists of the State-Trait Anxiety Inventory and the Carkhuff Empathic Understanding Scale.

The State-Trait Anxiety Inventory is a questionnaire of forty items. These items are divided into twenty items for state anxiety and twenty items for trait anxiety. Responses to the items are recorded on a Likert Scale. The inventory is designed to be used as either a state and/or trait anxiety measure. The inventory takes under five minutes to complete. It is reproduced in the appendix.

The test construction of the STAI was begun in 1964 with the goal of developing a single scale that would provide objective self-report measures of both state and trait anxiety. It was discovered that psycholinguistic properties of some items of a STAI conveyed meanings that interfered with its use as a measure of both A-State and A-Trait anxiety. This discovery led to the development of both a State and separate Trait scale.

In a normative sample of undergraduate college students the test-retest reliability of the A-Trait scale showed a much higher correlation.
than for the A-State scale. Correlations for the Trait for males and females over one hour, twenty day, and one hundred and four day retests ranged from .73 to .86. The correlations for the state scale on the same testing schedule ranged from .16 to .54 with a median r of only .32. These low correlations for the State scale were anticipated since the scale is designed to reflect different levels of anxiety in response to varieties of stress situations. When measuring the State reliability with internal consistency measures such as alpha coefficients, reliability coefficients ranged from .83 to .92.

The Trait scale has a high concurrent validity with other measures of Trait anxiety. The IPAT anxiety correlates with the Trait scale, and may be used interchangeably.

The construction of the State scale was such that items of various item-intensity specificity were used so that the instrument could be used over a wide range of state anxiety (Spielberg, Gorsuch, and Lushene, 1970).

Carkhuff in his Carkhuff Empathic Understanding Scale attempts to systematically rate counselor empathic behavior to client affect. He compressed the nine stages of accurate empathy developed by Truax into five levels of empathic understanding (Carkhuff, 1969). Carkhuff established level three as the minimal level of facilitative interpersonal functioning for the core condition of empathy. He contends that a level three counselor response is interchangeable with the client's statements with regard to affect and meaning. A response rated lower than level three on the part of a counselor subtracts noticeably from the quality of the client's affect and the meaning of the client's content.
Carkhuff describes a level four counselor response as expressing the client's feelings at a deeper level than the client's statements thus enabling the client to experience or express feelings he was unable to express previously. Finally, Carkhuff's level five counselor response goes past level four by facilitating self-exploration by the client. Carkhuff's descriptions of the five levels on his EU scale are included in the Appendix.

According to W. P. Brockman, Truax's accurate Empathy Scale (AE) and Carkhuff's Empathic Understanding (EU) have been used in counseling and therapy research as both an independent process variable and a dependent outcome variable. In review of these scales in the literature, most studies have treated derivative data from both as interchangeable (Brockman, 1980). Brockman found that most training paradigms established a .50 or better criterion for inter and intra rater reliability. Truax and Carkhuff have reported figures as high as .95 for inter and intra-rater reliability (Truax and Carkhuff, 1967).

Literature on these scales seems to be less concerned with reliability as threats to construct validity. One question raised has to do with making the assumption that rated empathic responses of a counselor are similarly perceived by a client. Reviews of several studies support the finding that judged empathy and client perceived empathy are rarely statistically significantly in agreement (Gurman, 1977).

Numerous studies criticize these scales in the area of raters bias. The theme of this criticism is that raters respond more to overall counselor characteristics in their ratings than the specific construct
of empathy (Chinsky and Rappaport, 1970 and Kiesler, 1967). A study of Muehlberg, Pierce, and Drusgow state the above criticism as raters responding to a "good guy" factor regarding the counselor being rated, more than assessing specific empathic behavior (Muehlberg, Pierce, and Drasgow, 1969). Other studies accounted for rater bias as being affected by counselor verbosity being viewed by raters as empathy (Carcena and Vicory, 1969). A study by Rapp suggested raters were affected by language variables. He states that counselors using feeling words tended to get higher ratings for empathy whether or not they accurately attended to the client in an empathic way (Rapp, 1978).

Brockman observes that much of the literature on validity of judged empathy to therapeutic outcome is questionable on methodological grounds. He contends there is a positive relationship between empathy or those dimensions tapped by objective empathy scales and therapeutic outcome (Brockman, 1980).

D. Design

The design employed for this study was a nonequivalent control group design. This model was selected since the treatment and control groups were drawn from naturally assembled collectives. Consideration was made of the use of a pretest-posttest control group design in which trainees from both clinics would have formed a population from which trainees could have been assigned randomly to either group. This model was rejected since selection methods might have proved intrusive. Also, the treatment effect is enhanced by leaving the clinic staff groups intact. Some aspects of the training focuses on interpersonal issues. Dealing with these issues was considered to be more salient in the
existing groups than newly formed groups required in the latter design. Campbell and Stanley criticize the nonequivalent control group design as presenting a threat to validity along the lines of selection and maturation interaction (Campbell and Stanley, 1963). As the design was used in this study, the treatment took place over a span of five weeks. While this does not eliminate the concern about maturation, this short span of time reduced the issue of threat noted by Campbell and Stanley. The issue of mortality was a concern; however, no subjects dropped out of the study once the pretraining evaluation sequence was initiated.

The clinics being located within the same region with similar clientele, similar staffing requirements and similar recruitment methods suggested the use of one as a control for treatment of the other.

**Statistical Analysis**

The statistical treatment of the data in this study was an analysis of covariance model. Analysis of covariance was used to explore the difference between the final Carkhuff empathy scores of the two groups controlling for pre test state anxiety scores, trait anxiety scores and pre test Carkhuff empathy scores. Analysis of covariance was also used to control for the possible contribution of the effects of variation in pre state anxiety scores, trait anxiety scores and pretest empathy scores on the difference between the two groups on post training state anxiety scores.

**Hypothesis**

Hypothesized statistical results are as follows:

The null hypothesis is that intervention in the form of training would not be associated with a:
a - A statistically significant reduction in state anxiety in the
treatment group as compared to the control group.

Symbolically:  $H_a: \frac{X_{1.1} + X_{1.2}}{2} = \frac{X_{2.1} + X_{2.2}}{2}$

Legend:  $XI.1 = $ pre-training treatment group mean

$X1.2 = $ post-training treatment group mean

$X2.1 = $ pre-training control group mean

$X2.2 = $ post-training control group mean

b - A statistically significant increase in measured empathy in
the treatment group as compared to the control group.

$H_b: \frac{X_{1.1} + X_{2.2}}{2} = \frac{X_{2.1} + X_{2.2}}{2}$

Alternate hypotheses are:

1 - Scores on the state anxiety inventory will show a significant
decrease from pre to post testing for the treatment group, when con­
trolling for pre state anxiety, trait anxiety and pre empathy scores.

This change will not be present with the control group scores.

$H_1: \frac{X_{1.1} + X_{1.2}}{2} \leq \frac{X_{2.1} + X_{2.2}}{2}$

2 - Scores on the Carkhuff scale for empathic response will sig­
nificantly increase from pre to post testing with the treatment group
when controlling for pre state anxiety, trait anxiety and pre test
empathy scores. This change will not be present with the control group
scores.

$H_2: \frac{X_{1.1} + X_{1.2}}{2} \geq \frac{X_{2.1} + X_{2.2}}{2}$
Summary of Methodology

In summary, the population used in the study consists of staff members from two emergency veterinary clinics. While these groups were not randomly selected, they were alike in many ways. The personnel make-up and size of the clinics were similar, as were the nature of work and type of clientele they served. Administratively and organizationally, the clinics were similar.

The sequence of pre and post treatment measurement have been outlined. Raters and actors were trained. Instrumentation was used which was thought to be minimally intrusive. The paper-pencil sections took less than ten minutes and the role play replicated methods that were used in the training program. Selection of instrumentation was based on the notion that the effect of the treatment could be measured in reduced state anxiety, and increased ability to be empathic in pet owner-clinician role played interactions.

The training program underwent the initial phases of a formative evaluation to improve effectiveness and content validity. The focus of training was on helping veterinary clinicians understand family emotional process and how it is affected by the pet crisis. The training covered techniques of interaction and defining responsibility for self for the clinicians. Finally, trainees were involved in role play interactions with problematic owner/clinician situations. Ethical considerations have been addressed.

Data and rationale have been provided regarding validity, reliability and selection of instrumentation.

The type of statistical data to be sought has been identified with accompanying hypotheses as to expectations for statistical significance.
CHAPTER IV

The results of this study will be addressed as they relate to the hypotheses outlined in Chapter III.

The null hypothesis is that intervention in the form of training would not be associated with a:

a - A statistically significant reduction in state anxiety in the treatment group as compared to the control group.

Symbolically: \[ H_0: \frac{X_{1.1} + X_{1.2}}{2} = \frac{X_{2.1} + X_{2.2}}{2} \]

Legend: \( X_{1.1} = \) pre-training treatment group mean \( X_{1.2} = \) post-training treatment group mean \( X_{2.1} = \) pre-training control group mean \( X_{2.2} = \) post-training control group mean

b - A statistically significant increase in measured empathy in the treatment group as compared to the control group.

\[ H_b: \frac{X_{1.1} + X_{2.2}}{2} = \frac{X_{2.1} + X_{2.2}}{2} \]

Alternate hypotheses are:

1 - Scores on the state anxiety inventory will show a significant decrease from pre to post testing for the treatment group, when controlling for pre state anxiety, trait anxiety and pre empathy scores. This change will not be present with the control group scores.

\[ H_1: \frac{X_{1.1} + X_{1.2}}{2} < \frac{X_{2.1} + X_{2.2}}{2} \]
Scores on the Carkhuff scale for empathic response will significantly increase from pre to post testing with the treatment group when controlling for pre state anxiety, trait anxiety and pre test empathy scores. This change will not be present with the control group scores.

\[ H_2: \frac{X_{1.1} + X_{1.2}}{2} > \frac{X_{2.1} + X_{2.2}}{2} \]

Data tables are included at this point to represent the response patterns of the subjects to each of the two measures.

Table I
State Anxiety Measure
Form X

<table>
<thead>
<tr>
<th></th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trainees</strong></td>
<td>1  2  3  4  5</td>
<td>6  7  8  9  10</td>
</tr>
<tr>
<td><strong>Pre-training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Anxiety</td>
<td>41 43 41 26 40</td>
<td>56 32 48 42 30</td>
</tr>
<tr>
<td>Trait Anxiety</td>
<td>34 39 47 24 29</td>
<td>45 26 31 46 27</td>
</tr>
<tr>
<td><strong>Post-training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Anxiety</td>
<td>26 55 23 24 35</td>
<td>33 29 41 43 32</td>
</tr>
<tr>
<td>Trait Anxiety</td>
<td>34 39 47 24 29</td>
<td>45 26 31 46 27</td>
</tr>
</tbody>
</table>

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Table II
Carkhuff Scale for Empathy
Group Mean Scores

<table>
<thead>
<tr>
<th>Test Status</th>
<th>Treatment</th>
<th>Control</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>1.02</td>
<td>1.05</td>
<td>1.03</td>
</tr>
<tr>
<td>Post</td>
<td>1.30</td>
<td>1.03</td>
<td>1.18</td>
</tr>
<tr>
<td>Total</td>
<td>1.16</td>
<td>1.04</td>
<td>1.10</td>
</tr>
</tbody>
</table>

Table III
Carkhuff Scale For Empathy
Subject Mean Scores

Treatment Group

<table>
<thead>
<tr>
<th>Trainees</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-training Means</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1.06</td>
<td>1.03</td>
</tr>
<tr>
<td>Post-training Means</td>
<td>1.85</td>
<td>1</td>
<td>1.11</td>
<td>1.33</td>
<td>1.43</td>
</tr>
</tbody>
</table>

Control Group

<table>
<thead>
<tr>
<th>Trainees</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-training Means</td>
<td>1</td>
<td>1.09</td>
<td>1.07</td>
<td>1.07</td>
<td>1.05</td>
</tr>
<tr>
<td>Post-training Means</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1.25</td>
<td>1.03</td>
</tr>
</tbody>
</table>
Observation of the response patterns of trainees on the anxiety inventory (Table I) raised questions concerning the genuineness of their responses. Some patterns of trainee responses characterized subjects as remarkably calm. Other patterns revealed a predictable anxiety level on pre-training measures with an unrealistically low post-training score. Still other trainee scores were higher than any reference group norms reported on the instrument. These scoring patterns suggest the transparency of this instrument or attempts to fake a response pattern. While this issue will be discussed at length in Chapter V, it is addressed here to note concern for including questionable data in the analysis of covariance model proposed as the statistical design for this study.

The findings of the analysis of covariance treatment of the data will be discussed given the concern noted above. Analysis of covariance was used to explore the difference between the post training Carkkuff empathy scores of the two groups controlling for pre training state anxiety, trait anxiety and pre training empathy scores. The statistics produced, F ratios significant at p=.328-.729, indicating no extraneous variation from these scores. Analysis of covariance was also employed to control for the possible contribution of the effects of variation in pre training state anxiety, trait anxiety, and pre training empathy scores on the difference between the two groups on post training state anxiety scores. Findings indicated no significant contribution by any of these covariates as Table IV illustrates.
### Source of Variation | SS  | DF | Mean Square | F    | Significance
---|-----|----|------------|------|----------------
Covariates | 0.127 | 3  | 0.042      | 0.449| 0.729
  Prestate  | 0.016 | 1  | 0.016      | 0.171| 0.696
  Trait     | 0.018 | 1  | 0.018      | 0.194| 0.678
  Pre test Empathy | 0.111 | 1  | 0.111      | 1.174| 0.328
Main Effects | 0.092 | 1  | 0.092      | 0.977| 0.368
  Group     | 0.092 | 1  | 0.092      | 0.977| 0.368
Explained  | 0.219 | 4  | 0.055      | 0.581| 0.691
Residual   | 0.472 | 5  | 0.094      |      |     
Total      | 0.692 | 9  | 0.077      |      |     

### Source of Variation | SS  | DF | Mean Square | F    | Significance
---|-----|----|------------|------|----------------
Covariates | 165.216 | 3  | 55.072    | 0.387| 0.768
  Prestate  | 99.700  | 1  | 99.700    | 0.701| 0.441
  Trait     | 0.559   | 1  | 0.559     | 0.004| 0.952
  Pre test Empathy | 32.578 | 1  | 32.578    | 0.229| 0.652
Main Effects | 10.603 | 1  | 10.603    | 0.075| 0.796
  Group     | 10.603  | 1  | 10.603    | 0.075| 0.796
Explained  | 175.819 | 4  | 43.955    | 0.309| 0.861
Residual   | 711.080 | 5  | 142.216   |      |     
Total      | 886.899 | 9  | 98.544    |      |     

These statistical findings require the acceptance of the null hypothesis that intervention in the form of training would not be associated with a:
a - A statistically significant reduction in state anxiety in the treatment group as compared to the control group.

\[
H_a: \frac{X_{1.1} + X_{1.2}}{2} = \frac{X_{2.1} + X_{2.2}}{2}
\]

b - A statistically significant increase in measured empathy in the treatment group as compared to the control group.

\[
H_b: \frac{X_{1.1} + X_{2.1}}{2} = \frac{X_{2.1} + X_{2.2}}{2}
\]

In addition to the reservation noted above concerning the inclusion of possible contaminated data, the statistic employed in this study may have been confounded by the small sample size. An analysis of covariance model suggests a significantly larger n than what was employed in order to insure sufficient numbers of subjects represented in each covariate group. These concerns led the researcher to develop secondary statistical hypotheses which employ a different statistical test in an effort to address the above limitations in assessing the treatment effect. The secondary hypotheses are:

Stated as null hypotheses, there will be no difference by group or pre to post training for scores on anxiety measures or level of empathic response.

a - Scores on the state anxiety inventory will show no statistical difference in between group scores and from pre to post training.

Symbolically: \[AH_a: \frac{X_{1.1} + X_{1.2}}{2} = \frac{X_{2.1} + X_{2.2}}{2}\]

Legend: \(X_{1.1}\) = pre-training treatment group mean
\(X_{1.2}\) = post-training treatment group mean
X2.1 = pre-training control group mean
X2.2 = post-training control group mean

b - Scores on the Carkhuff Scale of Empathic response will show no statistical difference in between group scores and from pre to post training.

\[ \frac{X_{1.1} + X_{2.2}}{2} = \frac{X_{2.1} + X_{2.2}}{2} \]

Alternate hypotheses are:

a - Scores on the state anxiety measure will decrease significantly from pre to post training for the treatment group. There will be no such decrease for the control group.

\[ \frac{X_{1.1} + X_{1.2}}{2} < \frac{X_{2.1} + X_{2.2}}{2} \]

b - Scores on the Carkhuff Scale for Empathic response will show a significant increase from pre to post training with the treatment group. There will be no such increase for the control group.

\[ \frac{X_{1.1} + X_{1.2}}{2} > \frac{X_{2.1} + X_{2.2}}{2} \]

To test these hypotheses an analysis of covariance was conducted to explore the difference between the post state anxiety scores of the two groups controlling for pre state anxiety scores. The statistical findings revealed no significant differences between or within groups. These findings were substantiated using T-tests. Table V includes the statistical findings for this analysis of covariance.
Table V
Analysis of Covariance
Post Test State Anxiety by Group Controlling
For Pre Test State Anxiety

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates</td>
<td>131.335</td>
<td>1</td>
<td>131.335</td>
<td>1.227</td>
<td>0.305</td>
</tr>
<tr>
<td>Prestate</td>
<td>131.335</td>
<td>1</td>
<td>131.335</td>
<td>1.227</td>
<td>0.305</td>
</tr>
<tr>
<td>Main Effects</td>
<td>6.042</td>
<td>1</td>
<td>6.042</td>
<td>0.056</td>
<td>0.819</td>
</tr>
<tr>
<td>Group</td>
<td>6.042</td>
<td>1</td>
<td>6.042</td>
<td>0.056</td>
<td>0.819</td>
</tr>
<tr>
<td>Explained</td>
<td>137.376</td>
<td>2</td>
<td>68.688</td>
<td>0.641</td>
<td>0.555</td>
</tr>
<tr>
<td>Residual</td>
<td>749.523</td>
<td>7</td>
<td>107.075</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>886.899</td>
<td>9</td>
<td>98.544</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A series of analysis of variance were run which explored the difference between the two groups on pre training state scores, post training state scores and trait scores. In each case the findings of no significant difference was made. Table VI presents the results of these three analyses of variance.

Table VI
Analysis of Variance
Trait Anxiety Scores by Group

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>0.400</td>
<td>1</td>
<td>0.400</td>
<td>0.005</td>
<td>0.948</td>
</tr>
<tr>
<td>Group</td>
<td>0.400</td>
<td>1</td>
<td>0.400</td>
<td>0.005</td>
<td>0.948</td>
</tr>
<tr>
<td>Explained</td>
<td>0.400</td>
<td>1</td>
<td>0.400</td>
<td>0.005</td>
<td>0.948</td>
</tr>
<tr>
<td>Residual</td>
<td>699.199</td>
<td>8</td>
<td>87.400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>699.600</td>
<td>9</td>
<td>77.733</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Analysis of Variance

Post Training State Anxiety Scores by Group

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>22.500</td>
<td>1</td>
<td>22.500</td>
<td>0.208</td>
<td>0.660</td>
</tr>
<tr>
<td>Group</td>
<td>22.500</td>
<td>1</td>
<td>22.500</td>
<td>0.208</td>
<td>0.660</td>
</tr>
<tr>
<td>Explained</td>
<td>22.500</td>
<td>1</td>
<td>22.500</td>
<td>0.208</td>
<td>0.660</td>
</tr>
<tr>
<td>Residual</td>
<td>864.399</td>
<td>8</td>
<td>108.050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>886.899</td>
<td>9</td>
<td>98.544</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analysis of Variance

Pre State Anxiety Scores by Group

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>28.900</td>
<td>1</td>
<td>28.900</td>
<td>0.347</td>
<td>0.572</td>
</tr>
<tr>
<td>Group</td>
<td>28.900</td>
<td>1</td>
<td>28.900</td>
<td>0.347</td>
<td>0.572</td>
</tr>
<tr>
<td>Explained</td>
<td>28.900</td>
<td>1</td>
<td>28.900</td>
<td>0.347</td>
<td>0.572</td>
</tr>
<tr>
<td>Residual</td>
<td>665.999</td>
<td>8</td>
<td>83.250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>694.899</td>
<td>9</td>
<td>77.211</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These findings require the acceptance of the null hypothesis that scores on the state anxiety inventory will show no statistically significant difference in between group scores and from pre to post training.

To test the null hypothesis that scores on the Carkhuif Scale of Empathy will show no statistically significant difference in between group scores and from pre to post training, a two way analysis of variance was conducted. The results are included in the table to follow.
Table VII
Two-way Analysis of Variance

Score on Carkhuff EU Scale By Pre-Post Test Status and Group

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>6.165</td>
<td>2</td>
<td>3.082</td>
<td>30.759</td>
<td>0.001</td>
</tr>
<tr>
<td>PP</td>
<td>4.324</td>
<td>1</td>
<td>4.324</td>
<td>43.148</td>
<td>0.001</td>
</tr>
<tr>
<td>Group</td>
<td>1.984</td>
<td>1</td>
<td>1.984</td>
<td>19.797</td>
<td>0.001</td>
</tr>
<tr>
<td>2-Way Interaction</td>
<td>4.800</td>
<td>1</td>
<td>4.800</td>
<td>47.898</td>
<td>0.001</td>
</tr>
<tr>
<td>PP Group</td>
<td>4.800</td>
<td>1</td>
<td>4.800</td>
<td>47.898</td>
<td>0.001</td>
</tr>
<tr>
<td>Explained</td>
<td>10.965</td>
<td>3</td>
<td>3.655</td>
<td>36.472</td>
<td>0.001</td>
</tr>
<tr>
<td>Residual</td>
<td>84.680</td>
<td>845</td>
<td>0.100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>95.645</td>
<td>845</td>
<td>0.113</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The two way analysis of variance was run using scores on the Carkhuff EU scale as the dependent variable and pre-post test status and groups as the independent variables. This analysis yielded all F scores significant at p < .001. These findings indicate that the two groups exhibited very different patterns in the extent to which their empathy ratings changed from pre to post test. The mean score for the treatment group increased from 1.02 to 1.30, indicating a statistically significant increase in empathy rating. This finding was also validated using a T-test, giving a T significant at p < .05. The control group showed minimal change. The decline in mean scores from 1.05 to 1.03 is insignificant. These findings suggest that intervention with the treatment group produced a statistically significant increase in the degree of empathy demonstrated in their interaction with pet owners, at least in the observed situations.
Extensive analysis of variance was used to assess the contribution of rater variability to the observed variability in scores on the Carkhuff EU Scale. Tests included a one way analysis of variance of score by rater and a three-way analysis of variance of score by pre-post test, group and rater. All tests revealed F ratios related to rater effect which were in the range of $P=.66$ to $P=.96$. This indicates no significant difference among raters in scoring. The range of mean rater scores was narrow, never exceeding .03 for any group or testing status. This finding was validated by analysis of the degree of correlation among mean rater scorings of sample subjects. The Pearson-product moment correlation of 1.0 between raters 1 and 2 and .8 between raters 1 and 3 and raters 2 and 3 indicate a high degree of consistence in empathy ratings.

These findings require the rejection of the null hypothesis that scores on the Carkhuff Scale of Empathy will show no statistically significant difference in between group scores and from pre to post training. Instead, the alternate hypothesis that scores on the EU Scale will show a significant increase from pre to post training with the treatment group not present in the control group must be accepted. These findings lend support to the effect of treatment in explaining the variation in scoring of the empathy measure.

\[ \text{AH}_2: \frac{X_{1.1} + X_{1.2}}{2} \geq \frac{X_{2.1} + X_{2.2}}{2} \]

**SUMMARY**

The initial analysis of covariance which tested the hypotheses outlined in Chapter III revealed no statistically significant findings.
Due to concerns involving possible contaminated data and statistical limitations, secondary statistical hypotheses were developed. These required the testing of the variation for each group from pre to post training on each instrument. The findings of the latter testing supported the null hypothesis for the absence of treatment effect on the anxiety measure. The findings for the empathy measure rejected the null hypothesis in support of the alternate hypothesis that a treatment effect was present on the empathy measure. This finding suggests the effectiveness of the intervention in raising the treatment group empathy levels in responding to simulated anxious pet owners.
CHAPTER V

This chapter will provide a summary of the study. Included will be conclusions made from the findings. Limitations will be addressed as well as recommendations for future research and curriculum considerations for veterinary training in this area.

SUMMARY

The study was undertaken to evaluate the effectiveness of a training program addressing stress management for emergency veterinary clinicians. Interviews with clinicians and deans of veterinary schools supported the view that veterinary clinician interaction with anxious pet owners was a serious source of job stress, especially in emergency settings (Wessells, 1979). The skills to cope with pet owners has been an area of training missing from veterinary curriculum. The literature has recently begun to acknowledge the need to interact more effectively with pet owners as a deficient area in formal veterinary training (McCullock, 1981).

A premise on which the training program was developed suggests that training veterinary clinicians in family psychotherapy theory and methodology to more effectively handle owner anxiety would reduce a serious source of job stressfulness for the clinicians.

A theoretical model for the training was drawn largely from Bowen Family Systems Theory. This theoretical basis was viewed as appropriate on two counts. The literature on the Human/Companion Animal Bond repeatedly supports the view of pets serving an emotional role of family member in owners' families (Katcher, 1981; Caine, 1979; Levinson, 1965).
In many instances, pets fill an interpersonal space of a pre-verbal child (Ruby, 1981). It was considered important in offering training to veterinary clinicians to select a theoretical model that could clearly conceptualize family emotional process which centered around a symptomatic "child." In addition to being teachable, Bowen Theory is strong in the area of conceptualizing child focus family emotional process. A second point in support of Bowen Theory as a basis for the training involves intervention methods. Wessells points out a parallel between the child focus family process with a symptomatic, reluctant child and the pet focus family process. Each involves intervention with significant others in the symptomatic child/pet's life to facilitate treatment of the identified patient (Wessells, 1981). Since family systems psychotherapy was developed primarily to deal with this type of presenting problem, methodology drawn from this model is of unique value (Guerin, 1976).

It was hypothesized that training in family psychotherapy theory and methodology would enable the veterinary clinician to more effectively handle pet owner anxiety. In turn, job stress could be reduced for the clinician who gains mastery over a difficult interpersonal exchange. To test this hypothesis, it was necessary to operationally define this change in the clinician. In clinicians who gained from the training experience, reduced job stress from these encounters was predicted to be evident in changes in level of expressed empathy for the pet owner and lowered anxiety in the clinician. It was hypothesized that the effect of intervention (i.e., training) would significantly increase the clinician's level of empathic response over pre-training levels using
the Carkhuff Scale for Empathy as a measure. Secondarily, it was hypothesized that the effect of the training would be to lower state anxiety in the clinician immediately after an encounter with an anxious pet owner in comparison to pre training levels. Due to design limitations, these hypotheses had to be tested using simulated rather than real anxious pet owners.

CONCLUSIONS

Previously presented in Chapter IV are the statistical findings from the data obtained using the State-Trait Anxiety Inventory and the Carkhuff Scale for Empathy. As an adjunct to post training measures, the treatment subjects were asked to complete workshop evaluation forms. This form, which is included in the appendix, requires the trainees to respond subjectively to questions designed to illicit their feedback on the training experience. Some material from these forms will be incorporated into the discussion of the findings of the formal measures. In so doing the meaning of some of the findings may be enhanced.

The statistical treatment of the anxiety measure shown in Table I revealed no statistical significance. In all cases, there is no evidence of the training having any effect on the level of state anxiety. From a review of Table I, there is some question about whether or not responses to the instrument were an accurate representation of specific trainees' levels of anxiety. The lowest level of state anxiety possible is 20 and the highest 80, using this instrument. While there are no State norms based on representative or stratified samples, comparisons can be made with scores obtained for selected experimental groups. In making these comparisons individual results can be compared with
important reference groups. Mean scores on the State scale are available for college freshmen. With an n of 334 freshmen men received a mean score \( \bar{x} = 40.01 \). For college freshmen women the \( \bar{x} = 39.39 \) with an n of 648. The mean state score for general medical-surgical patients with n of 161 was \( \bar{x} = 42.38 \) \( \text{SD} = 13.79 \). Comparing the scores in Table I with the mean scores from these reference groups it is apparent that some trainees represented themselves as experiencing an extremely low level of anxiety. This is remarkable since such representations followed an experience which most trainees described as uncomfortable. Perhaps most notable are some specific scoring patterns in the pre-to post-training measures. Those in which the pre-test are comparable or above the norms of the reference groups, present results far below all reference groups means in the post measures may reflect the transparency of scoring for this instrument. It may suggest the desire of those trainees to present themselves as unrealistically calm. The tendency to experience the videotaped interview either as very anxiety-provoking or to deny the awareness of much anxiety might suggest the trepidation with which veterinary personnel approach an encounter with an anxious pet owner or having this behavior scrutinized. The former is supported in a statement made by one member of the treatment group in a workshop evaluation form following the training. In response to an item concerning what the trainee found least beneficial, the trainee stated:

The application of dealing with the people's affect (i.e., feelings) will probably give me the most problem. It calls for too close a relationship. This is my own personal dislike for "close" relationships, too much interactions.
During the course of the training several trainees stated that their choice of veterinary work was to enable them to avoid working with people. However, they were becoming disillusioned with their work due to the large amount of contact time with anxious pet owners. This motivation to enter the field coupled with the uncomfortableness of emotional human encounters supports the view of owner interviews being a prime source of work stress. These observations also offer some explanation for the low levels of empathic response recorded in Table II.

To review Table II some comments must be made concerning the Carkhuff Scale for Empathy. Using the Carkhuff scale, it should be pointed out that a score of one for an interviewer response indicates the interviewer has detracted from the feeling level of the interviewee. To clarify this point an example is necessary. The case of an anxious pet owner who in highly emotional tones makes the statement "I don't know what I will do if my dog dies" has elicited a level one response from the clinician if the clinician asks a question about the dog's medical condition without first at least verbally recognizing the owner's anxious state. A level two response to this situation would be a verbal acknowledgment of the owner's feelings. Responses ranging from three to five reflect the interviewer's (clinician's) increased verbalized understanding, acceptance, and willingness to have the owner express feelings. For the purposes of this training less emphasis was placed on the higher levels of empathic response (i.e., 3, 4, 5) since the training goal for veterinary clinicians was to deal with owner feelings to a level necessary to facilitate pet treatment. Focusing on higher levels of empathy was viewed as too advanced for the trainees.
It was also deemed inappropriate since high levels of response are designed to establish a psychotherapeutic relationship which is out of the realm of veterinary medicine. Taking into account the expectation of empathic responses being in the lower end of the scale, these trainees by and large scored quite low on empathy as Table II illustrates. Even with training, the level of empathic response was modified only slightly.

Cited in Chapter IV were the highly significant F ratios for the empathy measures. While a difference of means of .28 is statistically significant, on an integer scale from one to five this treatment effect does not reflect an appreciable improvement of empathic response for the trainees in any practical sense.

The above data may be better understood by the inclusion of some of the subjective responses drawn from the workshop evaluation forms. The statistically recorded low levels of trainee improvement on empathetic response may suggest that this is an area of significant difficulty for the clinicians undergoing the training. One trainee commented: "When you work day in and day out, you never think of cases as individual people."

The tendency to dehumanize owners, accompanied by a high anxiety level generated in human interactions and low levels of empathic response supports the need for more intensive training in the human interpersonal components of veterinary medicine. Almost without exception the portions of training using videotaped role play of clinician-owner encounters was seen as highly beneficial. Also reported as helpful was the limited focus on understanding the dynamics of the pet owning family. One trainee saw as significant the group experience
in the training since it afforded him an opportunity to express feelings and gain emotional support. This last response was the closest any trainees came to a focus on self awareness. Totally absent from the evaluations was any mention of the self-awareness portion of training dealing with defining one's self in relation to one's profession. The group as a whole highly focused on the importance of technique in the training with little to no focus on self awareness. This pattern for a helping professional has been described as an over-responsible, anxious posture for a clinician to maintain (Bowen, 1978). It further suggests the difficulty this group is likely to have in assimilating these skills. Taken in this light, their small improvement in empathic response from the limited training experience can be seen as a significant accomplishment.

LIMITATIONS

The study has a number of limitations. The work has good face validity as determined by the formative evaluation of the training package. In this evaluation the content and delivery methods were deemed appropriate to address the needs for the training as outlined in the first section of this paper (Thiagarajan, Semmel and Semmel, 1974). However, serious issues exist concerning such things as sample size, selection bias, length of training time and generalizability. The size of the populations were small resulting in the need for the effect to be quite large to reach a level of statistical significance. This factor compounded with the questionable data obtained in the anxiety measures may have been the prime factors for the absence of statistically significant findings using the original statistical design. To contend
with the issue of sample size secondary hypotheses were developed that dictated the use of a statistical test less affected by small sample size than the analysis of covariance.

Means of selection were complicated by the need to approach the populations by first gaining sanction to do so with each clinic's board of directors. Initial contact in the case of each clinic was made with the chairman of each board. During the explanation each group received by the researcher concerning the study, the voluntariness of participation was explained. However, questions remained concerning the voluntariness of trainees. This is due to both the emergency veterinarians and technicians having to choose to commit or not commit to a project that was perceived as "in favor" by their superiors.

The actual training time for the treatment group was fifteen hours divided into weekly, three-hour sessions. Had the focus of the training been on attitudinal change in lieu of behavioral change, the amount of training time may have been sufficient. Serious questions must be raised concerning the realism of expecting behavioral change from this limited amount of training as the group feedback confirmed.

Generalizability must be questioned on two counts. The measurements of the trainees change in skills were conducted in simulated rather than real situations. The literature and trainee feedback in this study support the use of "simulated patients" as a powerful tool in training of this nature (Helfer and Hess, 1970; Jason, Kagon, Werner, Elstein and Thomas, 1971). However, there may be subtle differences in real and "simulated patients" that is unaccounted for in the literature. Secondly, the subjects in this study may be representative of veterinary clinicians...
in similarly structured and operated emergency clinics. There may be
differences in the types of persons attracted to emergency versus con-
ventional small animal practices. Consequently, the findings in this
study should be viewed with this in mind in considering this form of
training for those outside the emergency setting.

IMPLICATIONS FOR FUTURE RESEARCH AND TRAINING

Addressed earlier in this chapter are the limitations of this study.
The results are suggestive of further research in this area in that both
statistically significant results and subjective feedback supported the
value of the training. Future research efforts must account for the
limitations noted above. Specifically, the population size must be in-
creased to enhance the reliability of the results as well as permit the
measurement of the existence of possible subtle treatment effects over-
looked in this work.

Research design considerations for future work in this area should
attempt the measurement of clinician performance with real rather than
simulated pet owners.

Consideration for alternative measures for treatment effect may be
indicated. Should future research efforts attempt to measure anxiety
levels and empathic response, the strengths and weaknesses of the instru-
ments used in this study should be considered. Problems noted earlier
with the anxiety measures could be overcome with the use of physiological
measures in lieu of a self report questionnaire. Such a change in instru-
ments sacrifices the unobtrusiveness of the state-trait measure for having
to "wire" each subject evaluated. The strength of the Carkhuff measure of
empathy is its unobtrusiveness. It occurs after the training has taken
place when used in conjunction with videotaping. For this population, the Carkhuff Scale for Empathy may lack subtlety. Since most changes in empathy for this population were anticipated to be observed in the lower end of the scale, change from treatment effect may be poorly measured with the Carkhuff measure. Further, those changes observed with veterinary clinicians using this measure can be undervalued since the level three response considered as minimal by Carkhuff applies to a different subject group with somewhat different goals.

The use of videotape recording and playback was reported to be highly significant by the subjects. To employ this equipment in the evaluation phases of future research, it may be helpful to desensitize the subjects to videotaping prior to using the equipment to record the tapes to be evaluated. In this study, the taping was thought to be somewhat obtrusive initially. Since taping and playback were used as a training technique as well as an evaluation measure, subjects reported becoming more accustomed to taping as the training progressed.

Clearly suggested by this study is the need for training in the areas covered by the training model. Future training needs to be more intensive and long term. Emphasis on technique seems to be suitably covered here. Future training efforts would best serve veterinary clinicians by placing more emphasis on the aspects of training that facilitate trainee self-awareness.
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APPENDIX
VITA

DORSEY THOMAS WESSELLS, JR.

4 Graham Drive
Newport News, Virginia 23606
599-5615 (Home)
596-7670 (Work)

EDUCATION:


Master of Science 1972, Rehabilitation Counseling, Virginia Commonwealth University.

In addition to my regular course of studies in attaining my bachelors and masters degrees, I earned thirty credit hours in commercial and fine art at Virginia Commonwealth University. These concentrations were in photography and furniture design.

Bachelor of Science 1968, Sociology and Social Work, Virginia Commonwealth University.

PROFESSIONAL TRAINING:

Post Graduate Training Program in Family and Systems Theory and Family Psychotherapy 1977-78 and 1978-79, Georgetown University Medical Center, Department of Psychiatry.

I have received in excess of three hundred fifty hours of supervision of my clinical work from: Phillip Lorio, M.D., Garry Singleton, M.D., Alan Entin, Ph.D., and Randall Colker, Ph.D.

I have attended numerous workshops and lectures in various therapy modalities involving family work, gestalt and behavioral approaches.

LICENSES AND PROFESSIONAL ORGANIZATIONS:


Approved as counselor supervisor for applicants for licensure as professional counselors, 1979.

American Personnel and Guidance Association

American Mental Health Counselors Association

Virginia Association of Drug Programs
Former Member of Newport News School System Special Education Advisory Board

Kappa Delta Pi - honor society in Education

Mental Health Resource Team for the local Chapter X Board

Member of the Board of Directors for the Family Counseling Forum (an organization which presents workshops and symposia on family therapy and related areas)

WORK EXPERIENCE:

1978 to present

Supervisor of Counseling, Alternatives, Inc., Warwick Professional Center, Building D, 12420 Warwick Boulevard, Newport News, Virginia, 23606. I am responsible for providing clinical and administrative supervision to the members of the counseling unit. The staff consists of doctorate and masters level personnel. I also deliver direct counseling services, primarily in the areas of family and individual counseling. I see primarily families who are referred to us due primarily to adolescent behavioral problems. I have developed and helped implement a school-based early intervention counseling program targeted for specific Newport News and Hampton Schools. I helped develop the evaluation and grant reporting procedure for the program. In my capacity as supervisor I have served as consultant to community agencies and conducted numerous workshops in areas related to family counseling.

In addition to my work at Alternatives, Inc., I maintain a limited private practice.

1973 to 1978

Family Counselor, Newport News Court Services Unit, 9314 Warwick Boulevard, Newport News, Virginia. I provided family counseling to families with delinquent children. I also provided family counseling to couples with marital difficulties. I saw some individual parents and some adolescents in individual counseling.

1973

Director of Sheltered Workshop, Lewis B. Puller Vocational Center, Saluda, Virginia. Developed grant for initial funding. Conducted organizational duties prior to the workshop becoming operable.

1968 to 1971

Vocational Rehabilitation Counselor, Rehabilitation Unit, Eastern State Hospital, Williamsburg, Virginia. Provided counseling and rehabilitative services to residential mental patients. Served as co-therapist
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with the late Frank McKenny, M.D., Director of Training at Eastern State, to a drug group at the Riverside Hospital Community Mental Health Center. Served as Vocational Rehabilitation Counselor at the Newport News Field Office. Provided rehabilitation services to the Newport News Juvenile Court, Social Service Bureau and Outpatient Clinic at Riverside Hospital.


Between 1971 and 1979 I taught courses in photography and furniture design at Thomas Nelson Community College and Old Dominion University.

From 1969 to 1971 I opened and operated my own photography studio. I performed portrait and commercial photography. I engaged in layout work and published a book of my photographic work.

From 1970 to the present I design and build furniture. I have shown in numerous museums and galleries throughout this region. I market my work through these exhibitions.

1981/1982 I have co-developed and will co-lead a training package of family therapy and clinical supervision for the State Department of Mental Health and Mental Retardation.

WORKSHOPS AND PAPERS:

1981 Symposium - Psychosocial Aspects of Muscular Dystrophy and Allied Diseases: Commitment to Life, Health and Function. Presented a paper entitled Professional Burnout: An Issue for Those Treating Muscular Dystrophy Patients. Sponsored by Foundation of Thanatology and the Department of Neurology Columbia-Presbyterian Medical Center. (This paper will appear in a text that will be generated from the symposium.)

1982 Symposium - The Role of the Community Hospital in Dealing with Life-Threatening Diseases and Bereavement II: Colleagueship in the Hospital, Hospice, Community and Home. Presented a paper entitled Job Stress: An Issue for Community Hospital Personnel Treating Patients with Life Threatening Diseases. Sponsored by The Foundation of Thanatology and Lehigh University. (This paper will appear in a text that will be generated from the symposium.)
1981 International Conference on the Human/Companion Animal Bond. *Family Psychotherapy Methodology: A Model for Veterinary Stress Management.* Sponsored by the University of Pennsylvania's Center for the Interaction of Animals and Society; and the Delta Group of the Latham Foundation. (This paper will appear in a text that will be generated from the symposium.)


1980 APGA National Convention, Atlanta, Georgia. Co-presenter of a workshop on a family definition of adolescent resistance.


**PUBLICATIONS AND RESEARCH:**

Numerous newsletter articles in *Branching Out*, which is published by Alternatives, Inc.

The Use of Family Psychotherapy Methodology in the Development of a Model for Veterinary Stress Management. Accepted for publication in the text *Pet Loss and Human Emotion* (tentative title), 1982.

Learning to Deal With Stress and Anxiety, *Veterinary Economics*, United Publishing Corporation, Cleveland, Ohio, July, 1981.

ABSTRACT

A SYSTEMS BASED STRESS REDUCTION PSYCHOLOGICAL EDUCATION PROGRAM FOR EMERGENCY VETERINARY PERSONNEL: DEVELOPMENT AND EVALUATION

DORSEY THOMAS WESSELLS, JR., Ed.D.

THE COLLEGE OF WILLIAM AND MARY IN VIRGINIA, MAY 1982

CHAIRMAN: CHARLES O. MATTHEWS, Ph.D.

Conventional veterinary training equips veterinarians with skills to treat medical problems with animals. Until recently little emphasis has been placed on the human aspects of veterinary training and treatment. With the identification of the Human/Companion Animal Bond as a distinct area of scientific investigation, an increased awareness in this human factor in veterinary work has begun to emerge. To address the human factor, this study set out to evaluate the effectiveness of a training program developed to equip veterinarians with intervention skills and knowledge of family emotional process. In preparing the training program, research concerning the needs of veterinarians revealed that one, if not the most stressful, aspect of veterinary work for the clinician was dealing with anxious pet owners. The rationale for this study was that by equipping veterinarians with family psychotherapy theory and methodology, veterinarians could better handle anxious pet owners. In so doing their own anxiety, generated in these encounters, would be lowered.

The training program developed offered fifteen contact hours. The training was experience based learning as well as conventional didactic presentation. The training focused on clinician self awareness, family emotional process and intervention skills. Videotape recording for playback within the training group was employed. Also used were work sheets, experiential exercises and group process.

The population was selected from the staffs of two emergency veterinary clinics. For the pre-post control group design, one clinic staff comprised the treatment group and the other the control group. Pre and post testing was conducted on the dimensions of clinician anxiety level and level of clinician empathic response. These measures were taken after simulated pet/owner interviews which employed trained actors as pet owners and real pets as identified patients. Each of these simulated interviews was videotaped as part of the evaluation process.

The research findings were statistically significant supporting a treatment effect on the dimension of increased empathy expressed by the clinician. The anxiety measure data was not statistically significant. The anxiety results were inconclusive in that raw scores on this measure suggested the presence of socially desirable scoring patterns.
Conclusions to be drawn support the effectiveness of the training with regard to handling anxious pet owners. Whether or not clinician anxiety was affected by the training is impossible to determine. Viewing the statistical findings in conjunction with the subjective evaluation of the training suggest several things. Intervening with anxious pet owners was a highly threatening experience for many trainees in this research. While the statistical significance of the change in empathy scores was high, the amount of change was not great, \( x \) change was \( .28 \) on a five point scale from pre to post measures with the treatment group. Several trainees commented that their choice of career was largely made to "avoid working with people." They were frustrated in their jobs by the significant amount of time they were required to devote to contact with anxious humans. This combination of high anxiety and low empathy scores for this group reinforces the need for this type of training for those working in emergency veterinary settings. In this light, even a small change in empathic response may be considered important given the short training time and the anxiety associated with the training content.

For future training and research efforts in this area, a longer training program is indicated. The weight of these results are suspect given the small sample size (n=10). To contend with this issue, future researchers should strive to evaluate this form of training with a larger population. Emergency, evening workers may present different needs and problems than those of conventional day workers. In this regard, conventional veterinary clinic staff persons may find the content of the training less anxiety producing. How this would effect their performance on the above dimensions after experiencing the training is difficult to judge. For that reason, it is necessary to exercise caution in generalizing the results of this study to clinic populations outside of the emergency category above described.
INTERACTION ANALYSIS OWNER AFFECT SCALE

Levels of affective response in client:

IA. Voice level slightly changed
   B. Pitch of voice slightly changed
   C. Body language is restless, slightly more animated or somewhat more closed than normal

IIA. Voice level significantly different from normal speed
    B. Pitch of voice is noticeably shrill or depressed
    C. Body language clearly changing - more animated or closed off

IIIA. Voice is dramatically different from normal speech, conveying a sense of desperation or hysteria, loss of control/composure
    B. Pitch of voice quite shrill or depressed
    C. Body language quite animated or closed off.
A SYSTEMS BASED PSYCHOLOGICAL EDUCATION STRESS REDUCTION PROGRAM FOR EMERGENCY VETERINARY PERSONNEL

I. PURPOSE OF TRAINING:

A. Reduce stress experienced in crisis veterinary treatments through the understanding and application of systems principles.

II. HAVE THE PARTICIPANTS DEFINE CRISIS IN THE CONTEXT OF THE VETERINARY WORK SETTING:

A. Have participants cite examples of on the job crisis situations.

B. Examine each example provided (and/or supplement these with the list in the back of this packet) to distinguish whether the crisis is viewed as purely veterinary or one that is family based in response to the veterinary situation. To get at this distinction address the specific questions:

1. What is the most tension producing part of admission and examination?
2. Specifically what behaviors on each of the staff's part is the most tension producing to perform?
3. What factors make the difference concerning whether or not the course of admission, diagnosis, treatment and follow-up go smoothly?

C. Redefine veterinary crisis in terms of a family crisis precipitated by a veterinary emergency situation. To develop this definition address the importance of a pet in the family system.

1. Define triangles: Basic building block of relationships. They are necessary since a two person relationship is impossible to maintain for prolonged periods. (EXERCISE: Have participants divide into groups of three. One person must act as observer-recorder in each threesome. The other two are asked to talk only about themselves. Allow for five minutes of discussion. Process the recorder's notes and point out instances of triangling.)
2. Explain purpose of triangles: To promote a sense of closeness between two people while avoiding conflict between those people. (ILLUSTRATIONS: Fans watching their school's football team play against the arch rival. Your response to someone being critical to you about your spouse, parent, child or close friend.) (OPTIONAL EXERCISE: Have participants divide into groups of three. Have two from each group begin a mutually satisfying conversation with instructions to not permit the
third person to participate. Instruct the third person to attempt to force their way into the conversation. After five minutes process reports of closeness and distance in each threesome.

3. Child or pet focus families occur when fixed overcloseness develops between one parent/owner with the child/pet in opposition to the other parent/owner. This is an indirect way of handling conflict in the owner's/parent's relationship as well as a way for them to come together in a common worried or happy focus on the pet/child. The pet in such a triangle becomes crucial to the nature of the structure of the relationship established by the owners.

4. Cite research on human-pet relationships:

"Pathological Mourning After the Death of a Domestic Pet" - Pets serve the function of companions. Often they replace the supportive role of extended family members in an age when nuclear families are geographically removed from their family or origin. The extent to which the importance of pets can be seen in the family structure occurs when the pet is made a surrogate family member. Numerous case studies are reported in the literature in which people have psychiatric admissions following the death of a pet. When the pet was used by one spouse in an unsatisfactory marriage as a way to obtain emotional needs not met in the marital relationship is a case in point.

"Humans and Pets and Attachment" makes the implication that pets are used to meet nurturing needs in a spouse who is unable to meet these needs in relation to family members. Problems ensue when the focus for meeting these needs is that narrowly channeled and the pet dies. In such a family configuration the pet is profoundly important. Its loss would be appropriately accompanied with a similar grief reaction to one precipitated with the loss of a family member. In the case of the loss of a pet, the inhibitions to experience grief are even greater.

"A Study of Pets in the Family System" - Dr. Ann Caine extracted some specific notions from her research on this topic:

49% of respondents named their pets people names
87% of respondents considered their pet a member of the family
60% of respondents reported pets as focus of disagreements around discipline, care and space to be used by the pet
32% reported changes in the family with the addition of a pet in the areas of increased closeness in the family and increased arguing over rules
66% reported significant family events occurring in close proximity to the time the pet was acquired. Of that number, 82% reported that pet acquisition represented substitution in an experienced loss.

8% of respondents reported feeling closer to the family pet than any family member.

81% of respondents validate the notion that pets can be viewed as a barometer of anxiety in the family in that they are sensitive to illness, depression, anger, family.

65% of respondents indicated that pets would have active, intrusive responses to overt signs of affection between family members.

48% of respondents described triangling situations involving pets (Ex. expressing anger at pet in lieu of other family members; side taking with a pet in arguments around pet discipline; talked to pet in lieu of other family members so that those other family members could hear.)

37% of respondents reported they made friends, increased social contacts or maintained social relationships by means of their pets.

73% of respondents described the loss of a pet in terms of sadness, grieving, crying, mourning, and loss for the family.

5. Relate the literature review with the appropriateness of intense emotional feelings associated with pet emergencies.

III. INTERVENTION WITH EMERGENCIES PRESENTED AT THE VETERINARY CLINIC:

A. Have each participant describe their intervention style

1. Describe interventions in behavioral terms
2. Describe motivations for each behavior and the associated feeling
3. Look for the effects of various intervention styles on owner's behavior and affect. Consider the following:
   a. does intervention deny owner's feelings by placating?
   b. does the intervention deny the owner's right to his feelings by anxious nurturing?
   c. does the intervention deny owner's feelings by overlooking them to focus on the pet?
   d. does the intervention accurately attend to the owner's feelings?

B. Define the veterinary problem in terms of a family crisis so that the total treatment will encompass the family as well as the pet. The advantages of a family definition are:
1. Pet owners who are handling their anxiety well can provide a better history and be of more assistance to treatment effort
2. Pet owners handling their anxiety well can predictably provide better follow-up care to their pet
3. Pet owners handling their anxiety well can become an asset to treatment rather than an added worry to the veterinary staff.

C. Veterinary staff needs to be in control of the emotional process of the veterinary precipitated family crisis*

1. Focus on affect/feelings to give permission to the owner to experience his upset and to enable some catharsis
   a. avoid questions to obtain information initially; make statements recognizing the owner's feelings
   b. reflect feelings back to the owner to enable him to express more affect
   c. observe for tension reduction
2. Focus on cognition/thoughts where it is necessary to gather history or information or to give instructions
   a. avoid using the word "feelings"
   b. focus on thoughts using phrases such as "what are your thoughts?" "how do you see it?" or any expression drawing on intellectual rather than emotional awareness
   c. if the owner becomes anxious during efforts to gather information, do not press for information. Revert to affective techniques until he appears to regain his composure
3. It is important to be aware of this process during the course of treatment
   a. be alert to the emotional state of the owner
   b. attempt to track his emotional state
   c. intervene in a way that fits for the owner's emotional state at a given point in time

IV. ROLE PLAY A VETERINARY/FAMILY CRISIS:

A. Have participants suggest a situation
   1. Have each participant switch off playing the owner and intervening staff person
   2. get each participant to focus on his anxiety level in each role
   3. have each participant focus on what his gut was directing him to do
   4. have each participant report on how their own level of anxiety influenced their efforts to track the process and intervene accordingly

*Additional material on interview skills was included which addressed empathy (Carkhuff) and feedback (Hansen)."
B. **EXERCISE:** Allow ten minutes for each participant to define in writing his responsibilities to his job
   1. have participants report on their efforts
   2. clarify responsible from overly responsible positions
   3. explore in the group the dichotomy that exists between your thoughts and feelings about responsibility as it relates to the work setting

C. **Focus on the awareness of veterinary staff person's own level of anxiety**
   1. look at feelings of staff personnel
   2. validate these feelings
   3. look at anxiety as it influences distance in relationship
   4. look at becoming aware of one's own need to distance

D. **Coping with anxiety in self for veterinary staff personnel**
   1. do not judge your own anxiety, accept it as normal
   2. be aware that there are numerous ways of dealing with one's feelings:
      a. introspection if the anxiety is easily associated with a situation to evaluate whether your position is responsible or overly responsible
      b. discuss your frustrations with other staff members
      c. relaxation exercises
      d. when necessary confront owners with your anxiety

E. **Operate for self on the part of the staff members.** Attend to your own needs first since it is important that your needs be met as much as possible for you to perform well in the work setting. Consider the following:
   1. environmental
   2. scheduling
   3. relationship
   4. job satisfaction

V. **RUN A SERIES OF ROLE PLAY SITUATIONS AROUND FREQUENTLY ENCOUNTERED STRESS PRODUCING VETERINARY/FAMILY CRISIS SITUATIONS**
   A. Describe each role play schematically using the concept of triangles and notions related to closeness and distance
   B. Have participants enact the role play. Process the experiences of those involved in the enactment. Have observers offer comments concerning intervention quality

VI. **CONCLUDE THE TRAINING**
   A. Comments and questions from participants
   B. Participant evaluation of the workshop
ROLE PLAY SITUATIONS

1. SITUATION: The owner is minimally responsive. The more the clinician presses for information, the more distant the owner becomes.

INTERPRETATION: This owner is probably highly attached to the pet in question. This owner possibly distances in the face of tension as a means of coping. This person is most likely quite distant from his spouse and uses the pet to compensate for the emptiness in his marital relationship.

2. SITUATION: "Know-It-All" owner who tries to force his opinion on the veterinarian.

INTERPRETATION: This person may need to be in control to feel secure about situations. He will likely appear more "know-it-all" as anxiety increases in him. He has people either distancing from him or in conflict with him since these exchanges take on a win-lose quality.

3. SITUATION: Demanding owner who wants to watch surgery, or stay all night with their pet.

INTERPRETATION: This owner is probably very attached to the pet. He is a fellow who may operate overly responsibly in relationships. He is in need of control to feel secure. He is a nurturing caretaker who gains a sense of strength and worth from being relied on.

4. SITUATION: A non-caring owner.

INTERPRETATION: The pet is most likely closely attached to the spouse not in attendance. The owner present most likely resents the other spouse's closeness with the pet. The present spouse is likely to have been pressed into service to bring in the pet due to the other spouse's emotionality as a way of trying to calm down the upset spouse. The spouse in attendance is likely to feel controlled by his spouse and angry about not seeing that he has a decision in the matter.

5. SITUATION: Criticism of cost of services.

INTERPRETATION: When people are upset, sometimes it is easier to express the upset as anger or annoyance than worry or concern. If the owner's behavior is not too extreme, this may be the case. If the owner is quite adamant about the costs, one might look for the behavior to be based on dynamics outlined in #4.

6. SITUATION: Hypochondriacal owner who subscribes illnesses to a healthy pet.

*Situations marked with an asterisk indicate the scenarios used in the pre and post evaluation sequences.
INTERPRETATION: This owner has a hard time receiving support or owning his need for support. He is able to avoid his own self-doubts by nurturing others. He gains a sense of worth and competence over being relied on. He is likely to be in a relationship with a spouse who is distant and/or seen as less capable. When anxiety rises in the marital relationship, distance ensues. A way of maintaining that distance and avoiding looking at his own emptiness is to view the pet as in need of attention.

7. SITUATION: Owners who don't restrain pet or children in the clinic.

INTERPRETATION: One consideration is that the spouse in attendance assumes most familial responsibilities due to distance in the marital relationship. The spouse in attendance is likely to feel burdened and overwhelmed by the responsibility and see no alternative but to attempt to shoulder it. This spouse is not very effective in managing the children and has come to not expect that it is possible to manage the family any better.

An alternate consideration would be the presence in the clinic of the distant spouse with the children and hurt pet who was "forced to take over" when the other spouse became highly emotional. The present spouse is not accustomed to managing the family consequently the control over the children is lacking.

8. SITUATION: Owner who refuses to fill out the veterinary records.

INTERPRETATION: This person is probably quite insecure and suspicious. He is probably isolated and quite close to the pet. It is important to define the responsibility for whether or not treatment is initiated with the owner. Provide this owner with choices he must make to either have the pet seen or not.

9. SITUATION: Lying by the pet owner.

INTERPRETATION: This person may feel responsible and guilty about the condition of the pet. Whether or not this owner's treatment of the pet and responsibility for the pet's condition is real or imagined, it is likely to have relationship factors. Either the owner is close to the pet and needs to overlook a condition or the distant spouse who abused or overlooked the condition. This person needs to be relieved of being responsible for the pet's condition.

10. SITUATION: Owner reacts to animal as if they were the pet. The owner feels the hurt of the pet.

INTERPRETATION: This person sounds highly emotionally connected to the pet. Depending on the intensity, it may be hard for this owner to reduce their anxiety. This person would benefit from knowing what the animal is going through. It may be preferable to have the other spouse take over if that person is available.
11. **SITUATION:** Unobservant owner who can give little historical information.

**INTERPRETATION:** The pet in this family likely plays an important stabilizing role. For either spouse to notice symptomatic behavior in the pet would threaten the stability. These owners are likely to overlook symptomatic behavior until the symptoms become quite severe.

12. **SITUATION:** Owner who insists on a diagnosis before the examination is complete.

**INTERPRETATION:** This is probably a highly anxious person who may be the closest family member to the pet. This person probably assumes some responsibility for making the pet well. This is probably similar to the situation in which the person responds sympathetically with the pet's injury.

13. **SITUATION:** Owner who cannot afford to pay for the treatment and looks guilty about having to decline treatment.

**INTERPRETATION:** This owner is likely to be the kind of person who meets their needs more out of caring for others than allowing themselves to rely on others. They are likely to structure their life to be over extended in terms of giving in relation to their resources and capacities to give. This situation is perplexing since it draws the veterinarian to assume an overly responsible position. The owner needs support related to not feeling guilty about their financial limitations. It would probably be the best all around to require some sort of payment from the owner, (i.e., reduced fee, installments and/or limited treatment), if it can be arranged.

14. **SITUATION:** Owner who does not think the animal is worth the expense.

**INTERPRETATION:** It sounds appropriate if the cost is quite high weighed against the age, health and life expectancy of the pet if the owner's decision looks thought out rather than emotionally reactive. If the owner has the pet put to sleep, the owner needs support for having made a difficult decision.

If the owner seems reactive, angry and belligerent about the decision, he is not the owner who is most invested in the pet. It is likely that the pet is enmeshed in relationship problems. The owner probably feels that he has no choice and is angry about feeling controlled by the other spouse.

15. **SITUATION:** Owner who telephones the clinic and refuses to tell the technician the symptoms and will only talk to the veterinarian.

**INTERPRETATION:** This owner sounds highly connected to the pet. The owner likely feels a responsibility for doing "all he can" for the...
pet in order to not experience guilt over the pet injury. This owner needs much reassurance over their competence as a pet owner. If he still insists in talking to the veterinarian if it is judged by the technician to not be necessary, the clinic might develop a policy of taking the owner's credit card number and charging a small fee for a veterinary consultation over the telephone if the owner insists.
CARKHUFF EMPATHIC UNDERSTANDING SCALE

Level 1

The verbal and behavioral expression of the first person either do not attend to or detract significantly from the verbal and behavioral expressions of the second person(s) in that they communicate significantly less of the second person's feelings than the second person has communicated himself.

EXAMPLES: The first person communicates no awareness of even the most obvious, expressed surface feelings of the second person. The first person may be bored or uninterested or simply operating from a preconceived frame of reference which totally excludes that of the other person(s).

In summary, the first person does everything but express that he is listening, understanding, or being sensitive to even the feelings of the other person in such a way as to detract significantly from the communications of the second person.

Level 2

While the first person responds to the expressed feelings of the second person(s), he does so in such a way that he subtracts noticeable affect from the communications of the second person.

EXAMPLES: The first person may communicate some awareness of obvious surface feelings of the second person, but his communications drain off a level of meaning. The first person may communicate his own ideas of what may be going on, but these are not congruent with the expression of the second person.

In summary, the first person tends to respond to other than what the second person is expressing or indicating.

Level 3

The expressions of the first person in response to the expressed feelings of the second person(s) are essentially interchangeable with those of the second person in that they express essentially the same affect and meaning.

EXAMPLE: The first person responds with accurate understanding of the surface feelings of the second person but may not respond to or may misinterpret the deeper feelings.

In summary, the first person is responding so as to neither subtract from nor add to the expressions of the second person; but he does
not respond accurately to how that person really feels beneath the surface feelings. Level 3 constitutes the minimal level of facilitative interpersonal functioning.

**Level 4**

The responses of the first person add noticeably to the expressions of the second person(s) in such a way as to express feelings a level deeper than the second person was able to express himself.

**EXAMPLE:** The facilitator communicates his understanding of the expressions of the second person at a level deeper than they were expressed, and thus enables the second person to experience and/or express feelings he was unable to express previously.

In summary, the facilitator's responses add deeper feeling and meaning to the expressions of the second person.

**Level 5**

The first person's responses add significantly to the feeling and meaning of the expressions of the second person(s) in such a way as to (1) accurately express feelings levels below what the person himself was able to express or (2) in the event of ongoing deep self-exploration on the second person's part, to be fully with him in his deepest moments.

**EXAMPLE:** The facilitator responds with accuracy to all of the person's deeper as well as surface feelings. He is "together" with the second person or "tuned in" on his wave length. The facilitator and the other person might proceed together to explore previously unexplored areas of human existence.

In summary, the facilitator is responding with a full awareness of who the other person is and a comprehensive and accurate empathic understanding of his deepest feelings.
WORKSHOP EVALUATION

1. Was there sufficient content covered - (elaborate)

2. Were the experiential portions helpful and sufficient - (elaborate)

3. What was most beneficial to you from the training? (elaborate)

4. What was least beneficial to you from the training? (elaborate)

5. What changes would you recommend in the content, format or delivery? (elaborate)

6. Overall comments:
SELF-EVALUATION QUESTIONNAIRE

Developed by C. D. Spielberger, R. L. Gorsuch and R. Lushene

STAI FORM X-1

NAME______________________________ DATE _________________

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you feel right now, that is, at this moment. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

1. I feel calm ................................... 1 2 3 4
2. I feel secure .................................. 1 2 3 4
3. I am tense .................................. 1 2 3 4
4. I am regretful ................................ 1 2 3 4
5. I feel at ease .................................. 1 2 3 4
6. I feel upset .................................. 1 2 3 4
7. I am presently worrying over possible misfortunes . 1 2 3 4
8. I feel rested .................................. 1 2 3 4
9. I feel anxious .................................. 1 2 3 4
10. I feel comfortable ........................... 1 2 3 4
11. I feel self-confident .......................... 1 2 3 4
12. I feel nervous .................................. 1 2 3 4
13. I am jittery .................................. 1 2 3 4
14. I feel "high strung"........................... 1 2 3 4
15. I am relaxed .................................. 1 2 3 4
16. I feel content .................................. 1 2 3 4
17. I am worried .................................. 1 2 3 4
18. I feel over-excited and "rattled" ............... 1 2 3 4
19. I feel joyful .................................. 1 2 3 4
20. I feel pleasant .................................. 1 2 3 4

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SELF-EVALUATION QUESTIONNAIRE

STAI FORM X-2

<table>
<thead>
<tr>
<th>Question</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. I feel pleasant</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>22. I tire quickly</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>23. I feel like crying</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>24. I wish I could be as happy as others seem to be</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>25. I am losing out on things because I can't make up my mind soon enough</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>26. I feel rested</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>27. I am &quot;calm, cool, and collected&quot;</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>28. I feel that difficulties are piling up so that I cannot overcome them</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>29. I worry too much over something that really doesn't matter</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>30. I am happy</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>31. I am inclined to take things hard</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>32. I lack self-confidence</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>33. I feel secure</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>34. I try to avoid facing a crisis or difficulty</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>35. I feel blue</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>36. I am content</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>37. Some unimportant thought runs through my mind and bothers me</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>38. I take disappointments so keenly that I can't put them out of my mind</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>39. I am a steady person</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
<tr>
<td>40. I get in a state of tension or turmoil as I think over my recent concerns and interests</td>
<td>Almost Never, Sometimes, Often, Almost Always</td>
</tr>
</tbody>
</table>