Improving Patient Satisfaction by Training Emergency Department Physicians to Respond to Patient Behavior

by

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Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

APPROVED: 1993

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ABSTRACT

This study examined patient behavior in the emergency department and trained physicians to respond to that behavior. It demonstrated that physicians can increase patient satisfaction by responding to the thoughts, feelings and actions which the patients are experiencing. The literature provided variables for patient satisfaction and physician counseling techniques. These variables provided the base for a Patient Satisfaction Inventory (PSI) and a training module for the physicians.

Patient behavior was evaluated through the clinical Thinking, Feeling and Acting interview, given to patients, before and after each patient was seen by the physician. This information was then provided to the physicians. For half of the patients, physicians responded according to patients thinking, feeling and acting components of behavior. For the others, physicians received no information other than the generic summary card summarizing thoughts, feelings and actions of the patients as a group. The PSI was completed by all patients after discharge from the emergency department. Pre and post training scores were compared on the PSI to determine if there was a difference in patient satisfaction.

An increase in patient satisfaction was experienced after the physicians were trained to purposefully respond to patient behavior. On
the PSI, patients perceived greater compassion, understood and communicated with the physician better, and perceived more accurate diagnoses and treatments. These increases in patient satisfaction were significant ($p < .01$) regardless of whether the physician had the actual patient information from the clinical TFA interview or just the generic summary. The physicians seemed to become sensitized to the patients needs by organizing the data they already had about the patients. Implications for the counseling field and training physicians to better serve their patients were discussed.
ACKNOWLEDGEMENTS

The committee supporting this study added the clarity necessary to express the findings in a meaningful manner. Dr. Keith's statistical expertise helped mold a viable research design. Dr. Cole improved the writing style enormously. Dr. Blieszner aided in the organization of the dissertation. Dr. Hendricks brought a fresh perspective from the medical field itself. However, Dr. Hutchins' constant requirement for quality and deep analytical thinking challenged me to a level of attainment I never thought possible. The encouragement and great patience which he showed will always be appreciated.

The doctors which participated in the study showed a willingness to examine themselves seldom seen in any professional community, let alone medicine. Their openness in looking at how to improve their services led to the significant results achieved. I will always be grateful for their ideas, time and effort. The patients all aided with their evaluations in the midst of high anxiety levels and often in great pain. Their struggle will always be esteemed. The nurses put up with my presence in the emergency department with no apparent good reason and helped with making sure I was able to get all of the patients.
My family deserves as much credit as I do. This study is dedicated to the memory of my mother, Jean Hardy, who told me I could do it in spite of all the setbacks and frustrations. I know she is proud. My father, John, gave me the determination and perseverance to succeed when my personal life made its completion seemingly impossible. They were both there for me together. My wonderful children, Clare, Christy, Chris and Ben put up with week after week of not seeing Mommy and always cheered me with a smile, a hug or an I Love You. My aunts, Jackie, Patti and uncle, Don also encouraged and reassured me.

But, most of all, I have to thank my wonderful husband, Rick, who gave me the power to finish in spite of great pain and extreme feelings of failure. His expertise on the computer, willingness to work all hours of the night and unfailing love gave me the reason and desire to bring this work to fruition.

I know I will never deserve the love shown me by all these wonderful people. I simply thank God and ask Him to Bless them always.
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CHAPTER 1

Development of the Problem

Introduction

One of the most successful television shows of the past several years is the fast paced RESCUE 911. It offers action, happy endings, and, best of all, true stories that could happen to any of us. The viewer gets absorbed by the unusual circumstances surrounding terrible experiences for otherwise average people. The behavior exhibited by those in crisis is so foreign to our everyday lives that it makes good entertainment. These feelings, thoughts and actions also provide us with good study.

Behavior under stress when anxiety levels are at their peak is a poorly understood phenomenon. People do strange things when thinking is clouded by an adrenaline rush or fear completely overwhelms them. Acting differently from the way they normally do makes them quite unpredictable. We come to expect people to behave in certain ways and we run into problems when we try to guess the cause of unusual changes. As the television show points out an emergency situation changes all of
these predictable responses making it very difficult for the emergency
department personnel in a hospital setting.

We do not understand well enough how severe pain and fear affect
the actions of those experiencing them. People act differently from one
another in normal circumstances causing difficulties for those trying to
assist them. These differences are greatly magnified and less
understandable during a crisis. One of the biggest problems for emergency
physicians is obtaining a complete and accurate history from stressed
individuals to identify the best diagnosis and treatment. The professionals
are taught that they have to rely on their ability to judge the condition of
the patient in order to ascertain the efficacy of the history. If they are
fortunate, there is another person with the patient to give more
information. But how well can that person describe the feelings, thoughts
and actions of another? As a result of these shortcomings, traditionally,
physical treatment has been emphasized and emotional issues ignored or
given second place. Clearly, there are times in these stressful conditions
when emotional issues should be given priority. Better understanding of
the needs of the person experiencing varying emotions would help take the
guesswork out of care in the emergency department.
In addition, it is obvious that no matter how good the physical care given in the emergency room, if the patient does not believe in the physician's power to cure, the results are less than optimal. The patient must trust the physician in order to obtain the full therapeutic effect of the treatment. Even though physicians may be technically expert, they must communicate their knowledge and concern in a way that a patient can understand.

This question of how to build patient trust has been addressed back and forth in medical literature for years. Different techniques are offered, but little information is available for determining what techniques to use for each patient. In addition, almost all of these techniques are either action or cognitively oriented offering little to the emergency situation where feelings play a great role in the patient's perception. However, the field of counseling already claims techniques for dealing with feelings as well as other behaviors. In addition, recently this field has been exploring which clients need which techniques. Consequently, counseling now has some possible answers for these medical incertitudes.

Lately counselors are most often using eclectic approaches to therapy. They have a large assortment of methods to choose from and are learning to use all of them in their efforts to better meet individual needs.
Research is ongoing to develop assessment tools to expedite the process of determining the best choice of techniques for each client. This information could prove useful to the helpers in the emergency department. Physicians can be trained to more effectively communicate and build the patient's trust by addressing all the behavioral dimensions of each patient. The counseling work helps to organize the mechanics for the physicians and other helpers.

Problem Statement

The problem of this study was to improve patient-physician communication and relationship.

purposes

The purpose of this study was to compare the pre and post patient satisfaction scores of patients treated by the physicians before and after
those physicians have received training in interpersonal interaction in patient assessment and treatment.

In addition, the following purposes were addressed by the study:

1) Synthesized the extant literature in emergency room patient satisfaction and counseling related to: a) patient satisfaction, b) malpractice, c) medical education, d) patient-physician communication, and e) patient-physician relationship. Patient-physician communication is different from patient-physician relationship in that the former refers generally to the clarity of and completeness of physician communication and the latter to the level of understanding and comfort which the patient feels from the physician.

2) Designed a literature and research based training module for emergency room physicians that identified appropriate responses to patients based on their situational emotional needs. The responses that are currently acknowledged in the field were identified. Those areas of patient need which are only sparsely examined or ignored were uncovered.

3) Identified the sex, age, admitting and discharge diagnosis, socio-economic level and TFA patterns of the subjects involved in the study.
4) Identified the emergency room situational behavioral orientation of some of the patients by administering the clinical TFA assessment prior to their being seen by the physician.

5) Developed a Patient Satisfaction Inventory (PSI). These PSI variables were identified in the literature and organized in terms of desired outcomes for the patient.

6) Determined the satisfaction experienced by each patient by administering this Patient Satisfaction Inventory. Physician response and competence variables were primarily addressed in the tool.

7) Evaluated the physicians response to training. This evaluation was done through feedback from nursing staff, researcher observations and physician feedback.

8) Compared the differences between the patient satisfaction scores, sex, age, admitting and discharge diagnoses, socio-economic level, and TFA pattern before and after the physicians training.
Research Questions

The following research questions were addressed:

1) What does the literature say about the relationship between patient satisfaction and physician responses?

The literature was examined according to the following categories: patient satisfaction, malpractice, medical education, physician-patient communication, and physician-patient relationship.

2) What patient responses were considered representative in the literature and research of the thinking, feeling and acting orientations?

3) What were the variables outlined in the literature which determine patient satisfaction?

These were used to develop the Patient Satisfaction Inventory.

4) Was the Patient Satisfaction Inventory developed from the literature valid and reliable?

Validity and reliability of the PSI was determined by a group of judges in a pilot study.

5) How did patient satisfaction on the PSI compare for pre and post training groups?
6) Was there a Hawthorne effect in giving the clinical TFA interview to one group of patients and not another?

7) What was the overall effect of training the physicians on patient satisfaction?

8) Was there a difference in patient satisfaction after training the physicians if the physicians had the results of a patient's clinical TFA interview compared to having only a generic summary of the thoughts, feelings and actions of the patients in the first group?

9) What were the characteristics of the patients in the study?

10) Was there a difference between the patient satisfaction scores in relation to the different characteristics of the patients?

11) What were the TFA patterns of the physicians?

Definitions

The following definitions provided a common language in order to understand this study:
1) "Emergency room patient" for this study was any patient who is seen in the emergency room for any illness or injury who was able to talk coherently to the nurses and doctors.

2) "Patient behavior" was defined as the measure of behavior obtained on the TFA clinical interview which consisted of:
   a) a TFA triad on which patient behavior is plotted (Appendix A) and
   b) specific behavior referents to the patient's thoughts, feelings and actions in the emergency room situation (Appendix A).

Assumptions

The following assumptions provided the starting point of this study:

1) The Hutchins Behavior Inventory and the clinical TFA interview were appropriate instruments for physicians and patients.
2) The nurses, physicians, and other helpers participating in this study desired to help the patients they were treating.

3) The patients participating in this study desired to get better and actively volunteered to help in the research.

**Delimitations**

The following delimitations applied to this study:

1) Patient satisfaction was primarily determined by the data collected from the PSI inventory. Other information such as extraneous comments or suggestions by the staff as well as the patients were included in the discussion section of the results.

2) The population consisted of rural, small town Virginia dwellers. Those who could not read or understand the Patient Satisfaction Inventory were given the test verbally with some explanation.

3) Only admitting and discharge diagnosis, sex, age, socio-economic level and TFA pattern were looked at as patient characteristics.

4) The type of emergency delimited the population that was used in the study. Unresponsive patients who in the opinion of the nurses were
too injured to participate and those who did not give their consent were excluded.

5) The particular physicians which were involved in the study were very good practitioners. Their possibly above average expertise may have prevented the results from being as definitive as if we used some of their more typical counterparts. At the same time, they were very open to the idea of improving in this area so their efforts may have been greater than average as well.

6) Emergency room patients were the only population looked at in the study. The results may be applicable to other areas, but emergency was the focus here.

Limitations

The following limitations served to identify the necessarily weak spots of the study which affected the ability to generalize the results:

1) The population being rural Virginians was skewed in favor of the illnesses and accidents seen in this area. In addition, this small group may have caused a weakness in that the population may have used similar
coping mechanisms to deal with their stress. This fact may conceal a significant interaction effect between the patient characteristics.

2) Only discharge diagnosis, sex, age, socio-economic level and TFA pattern were looked at as patient characteristics. Other characteristics may have interfered with some of the data.

3) The time frame was limited by length and season of the year. This limitation may have skewed the results in favor of some diagnoses to the neglect of others.

4) This was an action based study and, as such, has weaknesses in the areas of external validity and reliability. The ability to generalize it to other situations can only be proposed not proven.

Organization of the Study

This study was organized into five chapters. Chapter One included the introduction, the problem, purpose and research questions, significance of the study, definitions, assumptions, delimitations and limitations. Chapter Two reviewed of the pertinent literature. Chapter Three described the methodology and the procedures used in the study. Chapter
Four presented the findings. Chapter Five included the discussion, conclusions, implications and recommendations for future work in the area.

Need For This Study

Medical costs keep skyrocketing each year. Our economy is straining under the severe shock hospital care continues to give us. Many alternatives are being examined. Mandatory insurance, socialized medicine, severe limitations on hospital stays and outpatient treatments to name a few. But none of these solutions addresses part of the real problem, that of increasing patient responsibility. As medical costs increase, patient control decreases. As new, innovative, more technical procedures are performed, patient input becomes less and less important. However, this can lead to greater malpractice claims as patient cues are misinterpreted or missed altogether. These costs are then absorbed by the consumer again. Jones, Barge, Steffy, Fay, Kunz and Wuebker (1985) point out that the number of malpractice claims has increased from a rate of 11.3 per 100 physicians in 1981 to 17.8 per 100 in 1985, a 57% increase in 5 years. Payment for medical malpractice claims were estimated at
nearly one billion dollars for the year 1985, an increase of over 300% from 1981. If better health care is not need enough for this study, decreased malpractice costs is. However, the biggest need for the study from the standpoint of counseling is in the experience and data that expanding into the medical field will provide. The techniques form the field of counseling can be modified to be useful in the world of medicine to a much higher degree than is currently being done.

This part of the paper first shows that malpractice as well as good patient care is a major concern in the medical field. Second, it examines the benefits that this study brings to the solution of these problems. Finally, the advantages to the field of counseling are investigated.

The emergency room is a primary source of these soaring increases particularly through malpractice suits. The level of stress is usually abnormally high here. Stress has been shown to be a major factor in the number of malpractice suits both in the short run and over a long period of time (Jones, Barge, Steffy, Fay, Kunz & Wuebker, 1985). One of the things that breaks down under stressful conditions is physician-patient communication. This is one of the major risk factors associated with claims against physicians (Valente, Antiltz, Boyd & Troisi, 1988) (Hickson, Clayton, Githens & Sloan, 1992). Getting more information from the
patient about their emotional as well as physical condition would help increase the level of communication. The increasing malpractice, high level of stress and special need for efficient patient data collection and physician response make the emergency room an ideal place for a study on patient-physician communication leading to patient satisfaction to begin.

The Thinking/Feeling/Acting (TFA) model (which included the HBI and TFA clinical assessment) was used to provide a framework for such methodology in this study. The TFA model provides information about patient's behavioral orientations and needs in the emergency situation. This knowledge enables the physician to react to their behavior in an efficient manner, not losing any patient participation because of "inappropriate" functioning which the physician does not expect or is not prepared to handle.

For example, most patients in severe pain are feeling oriented in their behavior. However, the desensitized physicians often do not realize it and forget to address the feeling the patients have about pain. They then often miss great opportunities to enlist the patients help in discovering and alleviating the pain. If the physicians are directed by the patient behavior they can give thorough explanations if the patient is thinking oriented or go
right into aggressive physical treatment if the patient shows an action orientation.

Once established in the emergency room, these techniques may be applied to other areas of medicine. Surgeons can use them to know how to assuage the fears and anxieties that can complicate operations. Family practitioners are in a situation to go beyond the initial benefits derived from the model. After first joining with their patients by treating them with communication techniques that match their behavioral orientation, they can then incorporate more counseling theory into their relationship because of the amount of time they get with their patients. In counseling, after trust is established the therapist then goes on to encourage movement into the other areas of behavior when this movement will enhance problem solving skills. Family physicians could learn to do this either by themselves or in conjunction with a counselor who understands the methodology.

Counselors can benefit directly from this study as well. The skills of using this approach of organizing techniques according to behavioral orientation of the client have been tested even further than before and can be generalized into the whole different area of medicine. This generalization opens up a new domain for counselors to expand. Jobs can be created in the training of physicians by counselors in these techniques.
Referrals to counselors can be increased as the medical personnel becomes more aware of how patient's emotions affect their physical health. Emergency departments may add an additional specialist to their staff, the counselor, to make sure that the model is utilized to its fullest. The possibilities are unlimited.

In summary, this study may begin to solve a serious malpractice problem in the medical setting by incorporating already known counseling techniques effectively into the volatile situation existing in the emergency department. Patient investment must be maximized in order to provide adequate care. Blocks must be avoided, defensiveness circumvented. Using the TFA model may be the best answer for getting better information about the patients and training the physicians to join with their patients. Trust will be immediately encouraged and patients will be more motivated to work for health. Counseling is reinforced as an efficient and essential task for the well being of the patient.
CHAPTER 2

Background of the Problem

A problem in emergency care is the dehumanization of the patient which exists in the emergency department (McLeer, Anwar, Herman & Maquiling (1989)). The process seems to ask patients to conform to a certain set of "acceptable" behaviors rather than acknowledge the wide range of patient experience affecting the outcome of their disorder. Patients are expected to behave calmly and rationally and in their best interests. However, in a crisis, many people behave irrationally and give faulty information. Valente, Antilitz, Boyd, and Troisi (1988) cite the challenge of today's doctor to balance scientific solutions to the treatment of the disease processes with humane and caring approaches to the treatment of human illness. Without physicians having these special skills, the patients may be mistreated and, consequently, be very dissatisfied.

The intent of this part of the paper is to show that the literature supported the execution of this study. The literature was searched for reasons to better the patient-physician relationship as well as ways to actually improve it. First, patient satisfaction was examined to identify the important variables in determining a positive outcome between physician
and patient. These variables were analyzed to determine what issues were related. Second, assuming that there is a relationship between good physician-patient communication and relationship and good patient satisfaction, the malpractice literature was summarized to examine the importance of good patient satisfaction in the prevention of malpractice suits. Third, as further justification for exploring ways to improve patient-physician communication, the medical education literature was examined to see what variables are important in training physicians. Then, counseling techniques that were emphasized in the training programs were identified to begin to find the ways to improve the physician-patient relationship.

Fourth, an examination of the physician-patient communication and relationship material identified the counseling techniques used to further understand how physicians are to acquire the necessary skills for a positive relationship between the patient and physician. Finally, the counseling literature provided an effective way to categorize the patient and physician behaviors and techniques throughout the exploration. This grouping was especially helpful at the end where patient behavior was defined for use in the physician training program.

The variables found in the literature were grouped into patient thinking, feeling or acting behaviors and physician thinking, feeling or
acting behaviors. If the behaviors included in the variables had a cognitive component they were grouped under thinking. If the variable expressed or created feelings it was included under feeling oriented behaviors. If the behavior of the variable included any action needed by the patients or physicians it was included under acting oriented.

The outcome of this review was that quality communication and relationships between physicians and patients are necessary for good patient satisfaction. These variables are important in the prevention of malpractice as well. This review led to using counseling techniques in the training of physicians to improve these areas after organizing them according to model taken also from the counseling field.

**Patient Satisfaction**

Table 1 was constructed from an initial sampling of the literature from both Med Line (mostly 1980-1992) and Psych Lit (1980-1992). The variables identified formed the basis for the Patient Satisfaction Inventory (PSI). All of the variables that were under the control of the physician were included.
Table 1. Summary of Important Variables Relating to Patient Satisfaction.

<table>
<thead>
<tr>
<th>Title Source</th>
<th>Important Variables relating to patient satisfaction</th>
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<th>Physician Behavior Thinking/Feeling/Acting</th>
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<td>A survey of patient satisfaction, knowledge and compliance</td>
<td>Availability of physician</td>
<td>X</td>
<td>X</td>
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<td>Sanazaro (1985)</td>
<td>Patient's knowledge of prescribed drugs</td>
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<td></td>
<td>Patient's knowledge of own condition</td>
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<td></td>
<td>Patient's compliance</td>
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<td>Lochman (1983)</td>
<td>Perceived physician competence</td>
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<td>X</td>
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<td>Organizational structure of clinics</td>
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</tr>
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<td>Treatment length</td>
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<td>Physicians control</td>
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<td>Patient's expectations</td>
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<td>Client satisfaction and the organization of medical practice; why time counts.</td>
<td>Accessibility of Medical Care</td>
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<td>Ross, Wheaton, and Duff (1981)</td>
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<td><strong>Organizational effects on client satisfaction with humaneness of service</strong></td>
<td>Greenley and Schoenherr (1981)</td>
<td>Physician Humaneness of service</td>
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<td><strong>Interaction between the socio-demographic variables of physicians and their patients: its impact upon patient satisfaction</strong></td>
<td>Murphy-Cullen and Larsen (1984)</td>
<td>Physician communication skills</td>
<td>N/A</td>
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<td><strong>The interpersonal diagnosis of personality: a functional therapy and methodology for personality evaluation</strong></td>
<td>Leary (1957)</td>
<td>Affiliation of Physician</td>
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<th>Physician Behavior Thinking/Feeling/Acting</th>
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<td>Clarity of physician communication</td>
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<td>Kincey, Bradshaw and Ley (1975)</td>
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<td>Are poor families satisfied with the medical care their children receive?</td>
<td>Information about illness</td>
<td>N/A</td>
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<td>Wood, Corey, Freeman, and Shapiro (1992)</td>
<td>Discussion about examination findings</td>
<td>N/A</td>
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<td>Opportunity to express patient concerns</td>
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<tr>
<td>TOTALS</td>
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<td>12</td>
<td>13</td>
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</tbody>
</table>
The variables are categorized according to thinking, feeling or acting behaviors required on the part of the patient or the physician. This categorization comes from the work of Hutchins (1984) and provides the framework for analyzing which counseling techniques are most helpful to the physicians. Also, this categorization is extremely helpful in identifying the types of behaviors physicians may encounter.

It is clear from this brief overview of the literature on patient satisfaction that physician communication skills and the physician-patient relationship are significant variables in ensuring a positive outcome. In fact, they are related to almost every variable mentioned in every study cited, except the ones pertaining to organizational structures. Individual doctors can do little about such organizational structures in their day to day practice so this study did not deal with this variable. However, doctors can control their ability to relate effectively to their patients.

According to the two studies reported in Table 1, it is important for the physician to consider three behaviors in order to address patient satisfaction. Looking at this table, in regards to physician behavior, thinking and feeling are of almost equal importance with acting behaviors way ahead. It is interesting to note that physician actions were almost three times as important as patients actions in determining patient
satisfaction. The way that the patients think and feel are as important as the doctors. However, their actions do not seem to have much to do with their satisfaction. A weak spot in the literature may exist in that much of it focuses only on what the physician can do and does little to incorporate the patient into the healing process. Not addressing patient behavior is a mistake that Speedling and Rose (1985), Lochman (1983) and even as far back as Leary (1957), warn against. Leary (1957) was included here because several other studies cited it as the original patient satisfaction work. Kincey, Bradshaw and Ley (1975) also deserved mentioning as this study was one of the most comprehensive and was frequently cited, as well.

Patients may have different expectations than the physicians for diagnosis and treatment that are not communicated (Lochman, 1983). If these expectations are not addressed, according to counseling theory (Hutchins 1984), an atmosphere for mistrust might be created. These variables take on an even greater significance when viewed in light of malpractice risk management.
Malpractice

The review of the literature for the variables that lead to malpractice revealed many of the same problem areas. Table 2 analyzes this literature in the same manner. The patients do not often have an accurate idea of how good the care was that they received. They only have their perceptions of how competent the physician seemed to them and how important they seemed to the physician. They often sue based on these perceptions. Miscommunication seems to be a big problem area in (a) not understanding the patient well enough so that misdiagnosis occurs; and in (b) the patient not understanding the treatment methodology and, therefore, not complying properly. The data for Table 2 was taken from a Med Line search, (1980-1992) as well as from the pamphlets circulated among physicians by the insurance companies dealing with how to reduce the chance of malpractice.

All of the important variables discussed in these articles are related to physician-patient communication or to their relationship. These are key issues cited in the literature as problem areas that need solutions. All of the misdirected medications and treatments, improper management of patients, stress in the medical environment, etc. are at least partially caused
### Table 2. Summary of Important Variables Relating to Malpractice.

<table>
<thead>
<tr>
<th>Title Source</th>
<th>Important Variables relating to preventing malpractice</th>
<th>Patient Behavior Thinking/Feeling/Acting</th>
<th>Physician Behavior Thinking/Feeling/Acting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lawyers tell what turns some people litigious.</strong></td>
<td>Physician communication</td>
<td>X</td>
<td>X X X X</td>
</tr>
<tr>
<td>Avery (1986)</td>
<td>Physician attitude</td>
<td>X</td>
<td>X X X X</td>
</tr>
<tr>
<td><strong>The effect of physician behavior on the collection of data.</strong></td>
<td>Interruption of patients' opening statement</td>
<td>X</td>
<td>X X X</td>
</tr>
<tr>
<td>Beckman and Frankel (1984)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physicians' interviewing styles and medical information obtained from patients.</strong></td>
<td>Quality of Physician questioning and listening behaviors</td>
<td>X X X</td>
<td>X X X X</td>
</tr>
<tr>
<td>Roter and Hall (1987)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>The role of communication in patient's decisions to file malpractice suits.</strong></td>
<td>Quality of Physician communication</td>
<td>X</td>
<td>X X X X</td>
</tr>
<tr>
<td>Smith (1988)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Medical malpractice and the primary care physician: lowering the risks.</strong></td>
<td>Errors in diagnosis (insufficient exploration)</td>
<td>N/A</td>
<td>X X X X</td>
</tr>
<tr>
<td>Garr, Charleston, and Marsh (1986)</td>
<td>Improper management or monitoring (generally while in a rush)</td>
<td>N/A</td>
<td>X X X</td>
</tr>
</tbody>
</table>
Table 2. Summary of Important Variables Relating to Malpractice.

<table>
<thead>
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<th>Physician Behavior Thinking/Feeling/Acting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Consultation or referral problems (not sought in a timely manner)</td>
<td>N/A</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Inadequate patient history or examination</td>
<td>N/A</td>
<td>X</td>
</tr>
<tr>
<td>Predicting risk for medical malpractice claims using quality of care characteristics. Charles, Gibbons, Prisch, Pyskoty, Hedeke, and Singha (1992)</td>
<td>Scheduling enough time to talk with patients</td>
<td>N/A</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Answering patients telephone calls directly</td>
<td>N/A</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Feeling satisfied with practice arrangements</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acknowledging greater emotional distress</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>
### Table 2. Summary of Important Variables Relating to Malpractice.

<table>
<thead>
<tr>
<th>Title Source</th>
<th>Important Variables relating to preventing malpractice</th>
<th>Patient Behavior Thinking/Feeling/Acting</th>
<th>Physician Behavior Thinking/Feeling/Acting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complaints against doctors in an accident and emergency department: a 10-year analysis</td>
<td>Better communication</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Kadzombe and Coals (1992)</td>
<td>Increase satisfaction with diagnosis and treatment</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Factors that prompted families to file medical malpractice claims following perinatal injuries</td>
<td>Not covering up problems in treatment</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Hickson, Clayton, Girthens, and Sloan (1992)</td>
<td>Give enough information</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Patients wanted to protect others from harm</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>14</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>
by poor communication resulting in poor relationships. Clearly ways of developing better physician-patient communication would lead to better relationship, higher patient satisfaction and lower malpractice suits.

The totals at the bottom of Table 2 are rough indicators that the burden of the responsibility for reducing malpractice is on the physician. It makes more sense here than in the patient satisfaction category, however it might be the case even here that not enough emphasis is placed on the patient's responsibility. The thoughts, feelings and actions described for the patients resulted primarily in response to the actions of the physicians according to the literature. If the patients were to express their expectations and needs to the doctors, it would be easier to evaluate and treat the problems with fewer misses and more efficient initial diagnoses. It is interesting to note that the patients are primarily feeling oriented and the suggested responses by the physician are primarily thinking and acting oriented. Using cognitive and action oriented responses to patients who are feeling oriented is contrary to counseling theory (Hutchins, 1984) which states that initially joining with a client at the same behavioral orientation will increase trust which is a primary problem in malpractice cases.
Medical Education

Medical educators are aware of the need to improve communication. There have been various attempts at training future physicians in counseling techniques in order to enhance communication and relationship. Puckett, Graham, Pounds, and Nash (1989) describe the Duke University program for integrating ethics and human values into medical education. In order to respond to a widespread need to humanize the process of medical education, Duke has incorporated this four-year program utilizing cognitive and affective approaches. The base of the program is the establishment of direct and continuing relationships between the four advisory deans and their medical advisers. The curriculum includes efforts to help students manage stress, become more aware of the cultural and ethical dimensions in medicine and enhance their consciousness of human values, thus making the medical study more "student friendly." According to the article, only short range, subjective observations are available to see whether or not it is working. However, student morale seems to be higher when they are handling stress better and taking a more active role in humanizing their educational experience. They have examined their own ideals and values and enter clerkships more
aware of the ethical and human concerns in the practice of medicine. They are, therefore, better equipped to develop good relationships with their patients through better understanding of their needs and practiced communication skills.

Falvo and Smith (1983) developed a patient perspective scale which rated residents on how they did on behaviors which were important to the patients. These behaviors included the patients being informed about their examination, treatment and physician listen to their concerns and take their individual needs into consideration when prescribing treatment. All of these behaviors promote communication and relationship.

Schoonover (1983) discuss the use of videotapes to teach interpersonal skills to medical students. They feel that visual learning is essential, as much of what is emphasized is body language and positioning as well as voice tones and fluctuations. They start with social learning theorists and proponents of the interpersonal school of psychology, but then emphasize the need to individualize the training to the needs of each of the students.

Levenkron (1987) developed a method to use patient instructors to teach behavioral counseling skills to medical students at the University of Rochester School of Medicine and Dentistry. They produced this exercise
in response to the lack of preparation which physicians receive in promoting modification of health-related patient behaviors. They found that direct feedback from a patient instructor was more informative than feedback from a professor on a videotaped interview. They focused on the four areas of 1) relationship, 2) positive focus, 3) instigating change, and 4) general technique. The standard sequence for the review consisted of a) defining the criterion for the ideal response, b) describing the student's response for the item under discussion, c) rephrasing the student's responses to approximate the ideal criterion for the element, and d) inviting the student's responses to approximate the ideal response in his/her own words. All of these were taken from the University of Rochester Risk Factor Interview Scale (URRFIS).

These examples show that the patient-physician communication and relationship play an important role in medical education. There are still some problem areas to be worked out. It is clear that most physicians feel ill prepared to meet the expectations that are now being placed on them in terms of 1) changing behaviors, 2) communicating with warmth and respect, and 3) being technically perfect all the same time. Many of these studies emphasize different counseling techniques for achieving these goals.
All of the techniques make some difference, but none work for all situations.

**Patient-physician Communication and Relationship**

Next the literature under patient-physician communication and relationship was examined in order to categorize the different recommended techniques into areas related to counseling skills. This categorization helped to define the counseling techniques physicians should learn to help them achieve these increase communication.

Since the approaches contained in the literature included all three behavioral areas (as evidenced in Table 3 below), an eclectic approach to categorization is necessary. In order to relate effectively to counseling techniques as well as have a logical progression to the use of all of them, an eclectic model must be incorporated. The two most useful choices in this regard are the responsive therapy model (Gerber, 1986) and the Thinking, Feeling, Acting approach of Hutchins (1984). The latter was chosen in this case as it encompasses more of the techniques suggested out of the medical literature contained in Table 3. Is also contains a good.
measurement tool, the Hutchins Behavior Inventory (HBI), to identify which behavioral orientation the patients are given in a particular situation. This tool was quite helpful later on in training the physicians.

Hutchins (1984) outlined approaches, cognitively, affectively, or action oriented, that are appropriate for initially building trust with clients, gaining trust and then later encouraging them to move on to more effective ways of handling their problems. Counselors can decide which techniques to use based on the information received from the client, as measured by the Hutchins Behavior Inventory. It is this initial stage of joining with the patients which is so important to the physician-patient relationship and communication, especially in the emergency room where efficiency is highly valued. Therefore, the techniques cited in the literature are categorized as thinking, feeling or acting techniques or any combination of the three according to the thinking, feeling or acting behaviors necessary to perform each of the individual techniques listed in each article in Table 3. All of these sources were taken from Med Line and Psych Lit 1980-1990.

It is obvious from this review of the literature that there is a greater emphasis on cognitive or thinking oriented techniques for improving physician-patient communication and relationship. This is not surprising
<table>
<thead>
<tr>
<th>Source</th>
<th>Important Techniques for Physicians to Use</th>
<th>Individual Techniques Thinking/Feeling/Acting</th>
</tr>
</thead>
</table>
| #1 Valente, et al (1988) | Focus comments on the patient, not the disease  
 Avoid use of medical jargon  
 Use open-ended questions  
 Avoid businesslike approach  
 Communicate at patient's level of understanding  
 Provide the patient with reassurance and positive feedback  
 Use social statements and questions to establish rapport  
 Clearly state your expectations of the patient  
 Avoid threatening the patient's self esteem or sense of control  
 Summarize pertinent information  
 Give the patient a sense of accomplishment or satisfaction  
 Provide the patient with support for the task to be done  
 Communicate caring and concern through nonverbal channels (could be feeling oriented)  
 Follow-up on broken appointments  
 Use a variety of methods to get information across to patients  
 Discuss diagnosis, treatment and prognosis with family members | X  
 X  
 X  
 X  
 X  
 X  
 X  
 X  
 X  
 X  
 X  
 X  
 X  
 X  
 X  
 X |
| #2 Rich, et al (1987)       | Place high priority on history as opposed to the physical examination or laboratory findings                  | X  |
Table 3. Summary of the Physician-patient Communication and Relationship Literature Categorized Under Thinking, Feeling, or Acting Techniques by Individual Techniques Contained in the Articles.

<table>
<thead>
<tr>
<th>Source</th>
<th>Important Techniques for Physicians to Use</th>
<th>Individual Techniques Thinking/Feeling/Acting</th>
</tr>
</thead>
<tbody>
<tr>
<td>#3 Corah, et al (1985)</td>
<td>Take more time</td>
<td>X     X</td>
</tr>
<tr>
<td></td>
<td>Talk more</td>
<td>X     X     X</td>
</tr>
<tr>
<td></td>
<td>Express concern</td>
<td>X     X     X</td>
</tr>
<tr>
<td>#4 Southgate and Bass (1983)</td>
<td>Understand the worries of the patient.</td>
<td>X     X</td>
</tr>
<tr>
<td></td>
<td>These worries usually relate to:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>discomfort,</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>the effect of the illness on the family,</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>the prospect of a physical examination,</td>
<td>X     X</td>
</tr>
<tr>
<td></td>
<td>and about explaining the problem to the physician</td>
<td>X     X</td>
</tr>
<tr>
<td></td>
<td>Understand the expectations of the patients.</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>These include:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>an explanation of diagnosis and treatment in a friendly and understanding manner from the physician</td>
<td>X     X     X</td>
</tr>
<tr>
<td>#5 Toombs (1987)</td>
<td>Understand the different ways which physicians and patients perceive illness and respond to the patient</td>
<td>X     X     X</td>
</tr>
<tr>
<td>Source</td>
<td>Important Techniques for Physicians to Use</td>
<td>Individual Techniques</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>#6 Stewart (1984)</td>
<td>Family medicine has espoused a patient-centered model of the doctor-patient interaction. Patient-centered interactions are those in which the patient's point of view is actively sought by the physician. Therefore, the physician behaves in a manner that facilitates patients expressing themselves. The patient should show solidarity, express tension release, agree, and ask for opinions, suggestions and help.</td>
<td>X X X</td>
</tr>
<tr>
<td>#7 Wilshire (1982)</td>
<td>Medical Students need to be trained in and use the basic principles of Traux and Carkhuff (1967) which include the skills of: empathy, genuineness, and a positive regard for the patient.</td>
<td>X X X</td>
</tr>
<tr>
<td>#8 Berg (1987)</td>
<td>The physician needs to develop a psychotherapeutic attitude characterized by empathic attunement to the patient to reduce patient resistance to medical advise</td>
<td>X</td>
</tr>
<tr>
<td>Source</td>
<td>Important Techniques for Physicians to Use</td>
<td>Individual Techniques Thinking/Feeling/Acting</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>#9 Zinn (1988)</td>
<td>Physicians need to examine their own emotions to look for clues about the patients' emotions. The emotional states of patients arouse complementary reactions in the clinician that are diagnostic clues that can lead to important clinical syndromes such as depression or character disorders.</td>
<td>X</td>
</tr>
<tr>
<td>#10 Kohen (1986)</td>
<td>Relaxation/mental imagery (self hypnosis) is a very useful technique in reducing fear, anxiety, and pain in pediatric emergency situations.</td>
<td>X X</td>
</tr>
<tr>
<td>#11 Powers (1985)</td>
<td>Difficult patients encountered by primary care physicians often evoke negative emotions in the physician. Dependency needs are strong in these patients. Physicians must be aware of these strong feelings and use other medical resources in dealing with them after being empathic in their response.</td>
<td>X</td>
</tr>
<tr>
<td>#12 Roter (1984)</td>
<td>Physicians must increase patients asking questions in order to enhance patient satisfaction and increase communication. In this study, increasing patient questions was accomplished by a pre-session with a health educator who helped identify questions the patient had. The physicians then encouraged the patients to ask these questions in the interview.</td>
<td>X</td>
</tr>
</tbody>
</table>
Table 3. **Summary of the Physician-patient Communication and Relationship Literature Categorized Under Thinking, Feeling, or Acting Techniques by Individual Techniques Contained in the Articles.**

<table>
<thead>
<tr>
<th>Source</th>
<th>Important Techniques for Physicians to Use</th>
<th>Individual Techniques Thinking/Feeling/Acting</th>
</tr>
</thead>
<tbody>
<tr>
<td>#13 McCreary and Turner (1984)</td>
<td>Chronic pain patients who have an internal locus of control may portray themselves as less disabled by their pain and may better respond to treatments which require active participation.</td>
<td>X</td>
</tr>
<tr>
<td>#14 Koenig, et al (1989)</td>
<td>Religion plays an important role in the treatment of the older patient. Physicians must be willing to talk about religion with their patients and even pray with them in a crisis type of situation. They must have a positive attitude towards religion and give it great respect.</td>
<td>X X X</td>
</tr>
<tr>
<td>#15 Crain and Crain (1987)</td>
<td>Good physicians get their sense of how a patient is feeling through their interactions with the patient. The cognitive deductive problem-solving method employed by most physicians must first begin with an analysis of the feelings and perceptions which physicians receive about their patients according to Maslow's humanistic model of cognition (1966).</td>
<td>X X X</td>
</tr>
<tr>
<td>Source</td>
<td>Important Techniques for Physicians to Use</td>
<td>Individual Techniques Thinking/Feeling/Acting</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>#16 Kuttner (1986)</td>
<td>In dealing with children in chronic pain, it is very important to alleviate the stress of recurrent painful invasive procedures, by using Breathing or blowing methods, distraction using pop-up books, and the more sophisticated hypnotic imaginative involvement techniques are all useful for dealing with such trauma.</td>
<td>X</td>
</tr>
<tr>
<td>#17 Quill (1989)</td>
<td>Physicians must recognize and eliminate barriers which develop in physician-patient encounters. Signs of barriers include verbal-nonverbal mismatch, cognitive dissonance, unexpected resistance, and physician discomfort. Once a potential barrier is identified, its source must be defined and explored using standard clinical reasoning techniques such as hypothesis generation and testing.</td>
<td>X</td>
</tr>
<tr>
<td>#18 Nelson, et al (1983)</td>
<td>Patients routinely see themselves as more disabled by their physical and emotion illnesses than the physicians. A functional status should be regularly recorded to help describe severity from the patient's perspective and improve the physician-patient relationship.</td>
<td>X</td>
</tr>
<tr>
<td>Source</td>
<td>Important Techniques for Physicians to Use</td>
<td>Individual Techniques Categorized Under Thinking, Feeling, or Acting</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>#19</td>
<td>Patient-centered utterances from physicians may satisfy patients more than directives</td>
<td>X</td>
</tr>
<tr>
<td>#20</td>
<td>A stress inoculation procedure was developed to help patients deal with the pain and anxiety of hospitalization and speed recovery. It incorporated an education component which described the nature and stress of pain, a skills acquisition component which included deep breathing, relaxation, cognitive reappraisal and attention diversion and an application component which consisted of them giving themselves a treatment at their pace and under their control.</td>
<td>X</td>
</tr>
<tr>
<td>#21</td>
<td>A relationship exists between the way in which physicians and patients behave during an office visits and patient's subsequent health status. More patient control, more affect, especially negative affect expressed by the physician and patients, and more information provided by the physicians were associated with better health status reported at follow-up.</td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Thinking/Feeling/Acting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X X X</td>
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<td></td>
<td>X X</td>
</tr>
<tr>
<td></td>
<td>X X</td>
</tr>
<tr>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**TOTALS**

| 40 | 36 | 29 |
considering that we are dealing with a field known for its deductive reasoning prowess. However, more work needs to be done in the other realms in order to be able to relate to all the patients needing care whatever behavioral mode they are experiencing at the time.

The fact that Table 3 contains some work from the literature in all of the behavioral orientations shows that all of these are being recognized as important. Variables from all three areas for both patients and physicians were identified.

Although not all of this literature pertains directly to the emergency room situation, these physicians see a broad range of people. The suggestions from other areas are, therefore, useful. Patient-physician relationship and communication may need to be better addressed for the emergency room as diagnoses may be missed here due to lack of knowledge of the patient. Nahmais (1983) pointed out that emergency room physicians and nurses are unable to judge accurately either the degree or nature of a patient's psychological state. Wulsin (1988) showed that depression and panic disorder showing up as atypical chest pain are underdiagnosed in the emergency room. The skills contained in this review of the literature may be needed in the emergency room as much as in any other medical discipline.
Preliminary Summary of Behaviors and Techniques for Training Program

The patient behaviors discovered from this review of the literature are listed here in a clearer form from which the training program was developed. They are all from the sources listed in the tables above, but are now categorized under the thinking, feeling and acting groups and combined groups with examples in parentheses when appropriate. They were incorporated directly into the training program along with the results of the initial assessment of patients.
Patient Behaviors

**Thinking**
Knowledge of medications
Knowledge of condition
Knowledge of treatments

**Feeling**
Availability of physician
Pain and discomfort
Anxiety
Fear
Physician communication and attitude
(Do they calm or worsen fears and anxieties?)
 Interruption of opening statements
(He doesn't care-rejection)

**Thinking/Feeling**
Perceived physician competence
Treatment length
(How long will this take?)
Apprehension
Clarity of physician
Communication (I do not understand/Confusion)
Completeness of physician
Communication
Affiliation of physician
(Are they with me?/
Mistrust)

**Feeling/Acting**
Physicians's control (I'm out of control/What do I do?)

**Acting**
Quality of Physician communication
(Does it invite patient participation?)

**Thinking/Feeling/Acting**
Patient compliance- (I think they're OK, so I feel calm and I'll do what they say.)
Patient's expectations- (I expected them to be knowledgeable or care or act quickly.)
Encouraging patient participation in physician decision making
Quality of physician questioning/listening behaviors
Good patient/physician communication
The basic problem that still existed, however, was how to get all of these techniques into the emergency physicians' hands in a way that they can utilize effectively. It was the thesis of this study that if the behavioral data for each patient is given to the physicians after they have been trained in appropriate intervention for all of these areas, they were able to more effectively respond to the patients. This communication based on the patient's behavioral orientation at the time may increase patient satisfaction and reduce malpractice suits.

In summary, the problem, especially in the emergency room, is how to improve patient-physician communication and relationship. The most effective way to do that is to give the physicians the techniques, largely borrowed from the field of counseling, and the means to know quickly which are the most effective for which patients.
CHAPTER 3

Methodology

The methodology used in this study is summarized here. Major content included in the methodology include testing, pilot study, main study, and physician training.

Introduction

This is a practical action study, (Issac and Michael, 1987) with the general purpose of developing new skills or new approaches and solving problems with direct application to the medical setting. In particular, this study attempted to determine if training emergency physicians to respond to individual patients behavioral patterns affected the patients' satisfaction with their care in the emergency room.

In developing a method for assessing the value of this training, initial sample TFA behavior patterns were identified by administering the Hutchins Behavior Inventory (HBI) to six associates of the researcher (Appendix B). Then, the researcher developed a Patient Satisfaction
Inventory (PSI) (Appendix C) after reviewing the literature related to patient satisfaction. Variables listed as important in increasing patient satisfaction for any type of physician were grouped according to thinking, feeling or acting behaviors on both the part of the physician and the patient. The questions for the survey were developed from the variables.

Two methods evaluated the PSI. First, physicians professors and graduate students in the field determined if the questions measured patient satisfaction in an efficient and complete manner. Second, during a pilot study, the researcher discussed results of a questionnaire with participating patients to determine if the questions accurately and reliably measured patient satisfaction.

A methodology development summary of this chapter appears as Table 4. The table outlines the sequence of events, groups, treatment, and purposes.
<table>
<thead>
<tr>
<th>EVENT</th>
<th>GROUPS INCLUDED</th>
<th>TREATMENT GIVEN</th>
<th>PURPOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing</td>
<td>Physicians</td>
<td>HBI</td>
<td>Establish initial TFA pattern for physicians.</td>
</tr>
<tr>
<td>Pilot Study</td>
<td>1st Pilot Group (PA)</td>
<td>Clinical TFA, PSI</td>
<td>Establish standard format for researcher to follow. Suggest possible results. Get hospital staff used to routine evaluation PSI.</td>
</tr>
<tr>
<td></td>
<td>2nd Pilot Group (PB)</td>
<td>No Clinical TFA, PSI</td>
<td></td>
</tr>
<tr>
<td>Main Study</td>
<td>1st Control Group (1A)</td>
<td>Clinical TFA, PSI</td>
<td>Check for Hawthorne effect. Establish baseline patient satisfaction levels. Identify general thoughts, feelings and actions for use in physician training.</td>
</tr>
<tr>
<td>Pre-training Group (control)</td>
<td>2nd Control Group (1B)</td>
<td>No Clinical TFA, PSI</td>
<td></td>
</tr>
<tr>
<td>Physician Training</td>
<td>All Physicians</td>
<td>Videotape Written Tests Observations</td>
<td>Train physicians to respond to patient's thoughts, feelings and actions.</td>
</tr>
<tr>
<td>Main Study</td>
<td>1st Experimental Group (2A)</td>
<td>Clinical TFA, PSI Physicians given TFA results.</td>
<td>Look for differences in patient satisfaction scores. Determine if the TFA results were necessary for the change.</td>
</tr>
<tr>
<td>Post-training (experimental group)</td>
<td>2nd Experimental Group (2B)</td>
<td>Clinical TFA, PSI Physicians not given TFA results.</td>
<td></td>
</tr>
<tr>
<td>Testing</td>
<td>All Physicians</td>
<td>HBI</td>
<td>Check for changes in TFA patterns for the physicians</td>
</tr>
</tbody>
</table>
Pilot Study

A pilot study consisting of 20 patients, three or four from each physician, determined the thinking, feeling and acting behavior of the patients and established a standard format for the researcher to follow. The pilot study suggested possible results and helped to get the hospital staff used to having the researcher around. Changes in the procedure for the study were determined at that time.

First, patients gave consent to participate in the study. Second, they divided by alternating numbers into the first pilot group (PA) or the second pilot group (PB). Group PA received a clinical Thinking, Feeling, Acting (TFA) assessment before they saw the physician. This was a situationally based behavior assessment (Appendix D). Group PB did not complete the clinical TFA assessment. The researcher then gave the revised Patient Satisfaction Inventory (PSI). The results of these questionnaires helped to predict what might be possible in the main study and to eliminate bugs from the evaluation process but were not included in the study. All results were coded by Group, physician, TFA or no TFA, and time of day to protect patient confidentiality.
Main Study

Sample

For the main study, 100 patients were selected from a rural Virginia hospital (city population: 8,000) as a control group. Participants were divided equally into two groups (Group 1A and Group 1B). All patients who presented themselves to the emergency department for treatment during selected time periods of three to six hours each entered the study if they were between the ages of 18 and 65 and if they were willing and able to respond to the testing procedure.

Time Periods for Collection of Data

The 24 hour day was divided into four time periods for data collection. Equal numbers of patients for each doctor were drawn from these periods. The doctors' very erratic schedule determined the days data could be collected.
Consent Procedure

The researcher talked with patients to see if they were willing to participate in the study after they had been evaluated initially by the nurses. They signed a consent form with the following statements:

"Hello. My name is Betty Gillmore. I am doing a research study here at the hospital to help me better understand how patients and physicians communicate with one another. I know that you are not feeling well but I was wondering if you could help me out" (for groups 1A and 2 only:) "by answering a few questions for me now, and" (for all groups:) "after you have seen the physician by filling out a questionnaire for me which tells me how the doctor did. It will only take a few minutes and should not hold you up when you are ready to go."

The researcher explained confidentiality procedures and gave further explanation that this was a doctoral dissertation out of Virginia Tech to those who asked. The reason and age of any patients who refused to participate in the study were recorded. In seven cases, the nurses advised that patients were not responsive enough to participate. Three patients did not participate due to extreme pain. Only responsive patients
were approached. All willing patients able to answer the questions participated even though some were intoxicated or drug seekers or were upset with the doctors seemingly without cause.

Before Physician Training – Control Groups

Group 1A

Patients who agreed to take part in the study were divided into two equal groups with the toss of a coin. Group 1A received the clinical TFA assessment (Appendix E) administered by the researcher. They all received the following instructions:

"Your behavior is important in helping the doctors to diagnose and treat you. Please help us by answering the following questions:"

1) "What are you thinking right now?"
2) "What are you feeling right now?"
3) "How are you acting right now?"

(For the following questions, the researcher restated their thoughts, feelings and actions).
4) "Between these thoughts, ________, and these feelings, ________,
are you thinking more or feeling more or somewhere in the
middle?"

5) "Between these actions, ________, and these thoughts, ________,
are you acting more or thinking more or somewhere in the middle?"

6) "Between these feelings, ________, and these actions, ________,
are you feeling more or acting more or somewhere in the middle?"

The only question that the patients had trouble understanding was
the one about how they were acting. If they asked what that meant, the
researcher gave them an example of actions which other patients had
exhibited but which were unrelated to the actions of that particular patient.

After administration of the test, the researcher's contact with the
patients was limited to getting a blanket or drink for the patient if
requested and the nursing staff was busy.
These patients were thanked for their consent and left alone by the researcher until after the physician had seen them, except for getting the same occasional blanket or drink as in Group 1A. This procedure enabled the researcher to check for a Hawthorne effect of giving the clinical TFA.

**Patient Satisfaction Inventory (PSI)**

After patients from both groups had seen the doctor, while awaiting final discharge from the nurse, the researcher administered the PSI.

**Planning Physician Training**

The TFA clinical assessment required the interviewer to determine the TFA behavior pattern of each patient in Group 1A in the emergency room situation. Actual thoughts, feelings, and actions of the patient were learned through the researcher's questions. The assessment was
situationally based at the time of admission to the emergency department. Results of these interviews given to patients in Group 1A helped structure the training module for physicians in the emergency room situation. The thoughts, feelings and actions of these patients provided examples to use in the training. A summary card was developed consisting of a laminated sheet with these different thoughts, feelings and actions of the patients in the first group listed by frequency (Appendix F) to be used as guidelines when no specific patient information was given them before seeing the patient.

Physician Training

Prior to training, physicians were also given the HBI to provide a baseline for assessing change that occurred during training. After all the data were collected from Group 1A and the physicians, the doctors were trained to respond to their patients based on the knowledge of their patients' thinking, feeling or acting orientation at the time. The components of the training program were: a) a videotape of approximately 40 minutes, made by the researcher, explaining and
demonstrating the use of each of the thinking, feeling and acting behavior categories and the techniques recommended for dealing with each one, b) an individual session about 30 minutes in length between each physician and the researcher which consisted of specific examples to be discussed and role played c) a written test to measure the physician's ability to respond correctly to the behavioral orientation of their patients, and d) personal observations by the researcher on three patients for each physician to give them feedback on how they were responding to the patients.

Videotape

The behavior to be included in the training came from the TFA responses from Group 1A, as well as published research data. In particular, Hutchins (1984) provided the framework for defining thinking, feeling and acting behavioral orientations.

Hutchins says that the most successful counselors (or possibly doctors) are those who can respond to any behavioral orientation. This flexibility allows them to build trust initially with each unique client by
responding to each in a manner that corresponds to that client's personal orientations or preferences.

In order to clearly define each type of behavior for the physicians, Hutchins' descriptions of the three primary behavioral orientations were used in the training video (Appendix G) as well as specific examples of each major orientation of the patients from Group 1. The video illustrated techniques designed to build trust between the physician and the patient for each behavior type. This trust building approach was essential because the emergency physician rarely interacted with their patients beyond an initial contact.

Specifically, the videotape consisted of the following parts:

1) Reviewing the research process and the expectations for the physician.
2) Applying the TFA approach to patient contact by giving physicians an understanding of how to determine patient's behavior through the TFA clinical assessment and then talking with patients in the manner suggested by the patients' TFA preferences. The video emphasized exploring all areas and then joining with the patient and through the patient's behavioral orientation. 3) Joining with the patients. The video described the following techniques and showed when each would be appropriate in working with patients.
a) With thinking oriented patients these methods were suggested:

Clearly state expectations of the patient
Identify irrational thoughts
Summarize pertinent information
Understand the worries of the patient
Understand the expectations of the patient
Use relaxation/mental Imagery
Repetitively ask patients to ask questions
Identify barriers to communication
Have patient voluntarily choose course of treatment
Educate patient so that understanding is adequate

b) With feeling oriented patients these methods were suggested:

Communicate at patient's level of understanding
Praise patient for some accomplishment
Show caring and concern through nonverbal language
Show the physician is on the patient's side
Express relief over problems not being as severe as expected
Agree with patients whenever possible
Be empathic by restating content and feeling
Express positive regard for the patient
Examine own emotional response to patient
Talk about religion

c) With acting oriented patients these were suggested:
Ask open ended questions
Develop a behavior program or contract
Ask for opinions, suggestions or help
Let patient give own treatment at own pace when possible

Individual Sessions

The individual sessions between researcher and physician consisted of further examples of the behavioral orientations of patients and appropriate responses, teaching through role playing, discussion and clarification. Physicians learned what to do specifically with the clinical TFA interview results. Also, each physician received a summary card (Appendix F) which contained the key thinking, feeling and acting words or phrases which had been identified from the TFA clinical responses of the
first 100 patients. This card was near the physician at all times to give
him/her a place to start communication with the patient. For instance, if a
patient was feeling oriented, the physicians could look on the card, find out
that the primary feeling that patients have in the emergency room was
anxiety, and talk to the patient about his anxiety. If the patient denied
feeling anxious, the doctor could continue down the list of key feeling
words until an appropriate one was found. If none of the key words fit, the
physician at least opened the discussion up so that the patient could
respond with a specific feeling.

After the doctors demonstrated verbally that they understood that
they were to explore all areas and then respond according to the most
dominant behavioral orientation, they took a written test to see if they
could write responses to the behavioral orientation of the patients in the
examples.
Written Test

This written test, given during the individual training phase, consisted of four situations (Appendix H) which the physicians' read and then responded to on their own. These situations included the TFA results for the patients described in each situation, and the physicians had to be able to interpret these results. The researcher determined whether or not the physician could identify the primary behavior orientation, and whether or not all identified behaviors were discussed. All physicians completed this exercise successfully as soon as they saw it could be incorporated into their regular routine.

Researcher Observations

Within a week of the individual training session, the researcher made observations of each physician's interaction with three patients. The researcher obtained consent from the patients and administered the clinical TFA. Results of the interviews for two patients were given to physicians before they saw the patients. Results of the third patient's interview were
not given to the physician. In this case, the physician had only the generic summary card. Then the researcher observed the interaction between the patient and physician. Following this interaction, the researcher gave feedback to the physicians as to how well they had explored all areas and how responsive they were to the appropriate or dominant areas. The researcher offered suggestions for improving the interview.

**Following Physician Training**

**Experimental Groups**

Another sample of 100 patients from the same hospital was selected in the same manner as the experimental group. They also were divided equally into two groups. In the first group (Group 2A), the patient's behavior at the moment of admission to the emergency department was assessed using the clinical TFA interview. The second group (Group 2B) was also given the behavior questionnaire, but the results were not given to the physician.
The physicians received the information from Group 2A before they saw the patients. They were expected to respond to these patients according to their behavioral orientation with no changes to their medical treatment plan. However, for Group 2B they had only the generic sample card (Appendix F) developed from the results of the clinical TFA from Group 1A. The physicians were expected to communicate with these patients, beginning with the most likely or dominant orientation of the patient and moving through all three behavioral areas.

After treatment, groups 2A and 2B were given the same Patient Satisfaction Inventory as groups 1A and 1B. The difference in these scores when the first group (1A and 1B) was compared to the second group (2A and 2B) provided the measure of patient satisfaction. The following comparisons were made between the results of the PSI to look for differences in the results section:

A) Group 1A was compared to Group 1B to see if there was any Hawthorne effect from the researcher giving extra attention to the patients by administering the clinical TFA interview.

B) Group 1 (A and B) was compared to Group 2 (A and B) to see if the physician training made a difference.
C) Group 2A was compared to Group 2B to see if the behavioral feedback itself makes a difference.

The characteristics such as sex, age, diagnosis before and after treatment, TFA patterns, doctor seen and socioeconomic level of the subjects used in the study were then examined to see if they had any bearing on patient satisfaction. These characteristics were compared with overall patient satisfaction. In addition, the physicians were given a follow up HBI to see if any changes had occurred in their TFA patterns during the study.
CHAPTER 4

Presentation of Findings

Introduction

This chapter contains results of analysis of the data using the Number Cruncher (NCSS) statistical package. The main analysis looked at patient satisfaction differences between a) group 1A (who were given the clinical TFA interview) and 1B (who were not given the clinical TFA interview) in order to determine if there was a Hawthorne effect or not, b) group 1 and 2, pre and post training groups to see if there was an overall effect of the training of the physicians, and c) group 2A (the ones whose results of the clinical TFA interview were given to the physicians) and 2B (whose results of the clinical TFA interview were not given to the physicians) to see if the information about each patient was important to the physicians for treatment. Discussion about the characteristics of the subjects is included to give an overview of the sample used. In addition, TFA patterns of the physicians were explored.
Data Collection

In collecting the data a minor problem occurred in that 24 patients were mistakenly required to stay 5 minutes longer than others due to nursing errors. However, there were no significant differences in the patient satisfaction scores of these patients when compared to the rest of the subjects used in the study. No other problems arose in working either with emergency department physicians or patients.

Research Question 1

Was there a Hawthorne effect in giving the TFA clinical interview to one group of patients and not the other?

Table 5 shows the difference between the patient satisfaction scores on the question which asked, "Overall, how satisfied were you with the treatment given by the physician", for Group 1A (the group that was given the clinical TFA interview) and Group 1B (the group that was not given
Table 5

Mean Overall Satisfaction Rating of Group 1A and 1B

Hawthorne Effect for Group #1

Two Sample T-Test Results

<table>
<thead>
<tr>
<th>Group: Count</th>
<th>TFA = 1</th>
<th>TFA = 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>5.242117</td>
<td>5.408529</td>
</tr>
<tr>
<td>95% C.L. of Mean</td>
<td>6.052001</td>
<td>6.091471</td>
</tr>
<tr>
<td>STD.Dev.-Std.Error</td>
<td>1.439771</td>
<td>1.176001</td>
</tr>
</tbody>
</table>

Ho: Diff=0

---Equal Variances---
---Unequal Variances---

<table>
<thead>
<tr>
<th>T Value - Prob.</th>
<th>-0.3882157</th>
<th>0.6987</th>
<th>0.3905957</th>
<th>0.6970</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degrees of Freedom</td>
<td>98</td>
<td>98.03845</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diff-Std. Error</td>
<td>0.102941</td>
<td>0.2651645</td>
<td>0.102941</td>
<td>0.2635488</td>
</tr>
<tr>
<td>95% C.L. of Diff.</td>
<td>-0.6292185</td>
<td>0.4233364</td>
<td>-0.6260092</td>
<td>0.4201271</td>
</tr>
</tbody>
</table>

F-ratio testing group variances  1.498896 *

* not significant
the clinical TFA interview). There was a 16/100 chance that the differences in patient satisfaction were due to group differences. That is not a significant difference. It is fair to assume that since the only difference between the first and second groups was in giving the clinical TFA interview (Group 1A) or not giving the clinical TFA interview (Group 1B) that there was no Hawthorne effect due to the administration of the clinical TFA.

**Research Question 2**

What was the overall effect of the training of the physicians?

Table 6 shows the results of the overall patient satisfaction scores for Groups 1 (pre-training, control group) and 2 (post training, experimental group) using ANOVA analysis. These data were taken from the answers to question 16 on the Patient Satisfaction Inventory (PSI), "Overall, how satisfied were you with the care given by the physician?"

It is clear from Table 6 that there was a significant improvement in the patient satisfaction scores after the physicians were trained.
Table 6

Analysis of Variance Report for Response Variable:

"Overall how satisfied were you with the care given by the physician?"

ANOVA Table for Response Variable: OVERALL

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Group)</td>
<td>1</td>
<td>35.28</td>
<td>35.28</td>
<td>27.96 *</td>
</tr>
<tr>
<td>Error</td>
<td>198</td>
<td>249.84</td>
<td>126.1818</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>199</td>
<td>285.12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .0001
Table 7 shows the results of ANOVA comparing the totaled patient satisfaction scores on PSI questions 1 through 15 with groups 1 and 2. Table 7 shows that patient satisfaction was definitely higher in Group 2. On these two measures of patient satisfaction, ((a) the last question of the survey on which patients rated their care overall, and (b) a combination of the other 15 questions which had them rate their care on specific variables identified in the literature) both showed a significant (p<.01) improvement in patient satisfaction in Group 2 over Group 1.

Table 8 compares the patient satisfaction scores on a) overall patient satisfaction with the physician's care and b) the doctor variables. This table again shows that there was a significant improvement in patient satisfaction scores (p.<.001) after the physician training. However, the second main effect, which doctor was seen, was not significant. Therefore it did not matter which physician was seen. The interaction between group and physician was not significant either.

Table 9 shows the means and F-ratio values of the evaluative questions on the PSI. It compares the scores before and after training for each individual question contained in the PSI. It is interesting to note that significant improvement was made on each and every item in the PSI.
Table 7

Analysis of Variance Report for Response Variable:

Total of Scores on Questions 1-15.

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Group)</td>
<td>1</td>
<td>7140.126</td>
<td>7140.126</td>
<td>52.84 *</td>
</tr>
<tr>
<td>Error</td>
<td>198</td>
<td>26757.63</td>
<td>135.1395</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>199</td>
<td>33897.75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .0001
Table 8

Analysis of Variance Report for Response Variable:

"Overall, How Satisfied Were You with the Care Given by the Physician?"

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Group)</td>
<td>1</td>
<td>34.72518</td>
<td>34.72518</td>
<td>27.91</td>
</tr>
<tr>
<td>B (Doctor)</td>
<td>5</td>
<td>6.593505</td>
<td>1.318701</td>
<td>1.06</td>
</tr>
<tr>
<td>AB</td>
<td>5</td>
<td>9.319202</td>
<td>1.865041</td>
<td>1.50</td>
</tr>
<tr>
<td>Error</td>
<td>188</td>
<td>233.9248</td>
<td>1.250919</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>199</td>
<td>285.12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .0001
Table 9. Means and F-Ratio Values of the Evaluative Questions on the PSI

Both groups had 100 patients. The questions on the PSI are summarized here with a phrase. The entire questions are contained in Appendix C.

<table>
<thead>
<tr>
<th>Question #</th>
<th>( \bar{X} ) Group1</th>
<th>( \bar{X} ) Group2</th>
<th>F-Ratio</th>
<th>p &lt; .01</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 - Was the physician available?</td>
<td>5.47</td>
<td>6.14</td>
<td>18.14</td>
<td>yes</td>
</tr>
<tr>
<td>#2 - Do you understand how the meds work?</td>
<td>5.89</td>
<td>6.50</td>
<td>22.63</td>
<td>yes</td>
</tr>
<tr>
<td>#3 - Do you know what is wrong?</td>
<td>5.69</td>
<td>6.60</td>
<td>37.37</td>
<td>yes</td>
</tr>
<tr>
<td>#4 - Will you follow the doctors orders?</td>
<td>6.36</td>
<td>6.73</td>
<td>11.04</td>
<td>yes</td>
</tr>
<tr>
<td>#5 - Was the physician competent?</td>
<td>5.89</td>
<td>6.63</td>
<td>27.23</td>
<td>yes</td>
</tr>
<tr>
<td>#6 - How long did it take to get treated?</td>
<td>4.58</td>
<td>5.47</td>
<td>16.71</td>
<td>yes</td>
</tr>
<tr>
<td>#7 - How clear was the physician?</td>
<td>5.87</td>
<td>6.65</td>
<td>40.68</td>
<td>yes</td>
</tr>
<tr>
<td>#8 - Did the physician talk about everything?</td>
<td>5.42</td>
<td>6.46</td>
<td>39.48</td>
<td>yes</td>
</tr>
<tr>
<td>#9 - Did the physician include your feelings?</td>
<td>5.36</td>
<td>6.37</td>
<td>34.31</td>
<td>yes</td>
</tr>
<tr>
<td>#10 - Were your expectations met?</td>
<td>5.66</td>
<td>6.45</td>
<td>28.19</td>
<td>yes</td>
</tr>
<tr>
<td>#11 - Did the physician treat you with compassion?</td>
<td>5.80</td>
<td>6.45</td>
<td>21.93</td>
<td>yes</td>
</tr>
<tr>
<td>#12 - Did the physician encourage your opinions?</td>
<td>5.28</td>
<td>6.23</td>
<td>28.47</td>
<td>yes</td>
</tr>
<tr>
<td>#13 - Did the physician sympathize with you?</td>
<td>5.52</td>
<td>6.28</td>
<td>20.49</td>
<td>yes</td>
</tr>
<tr>
<td>#14 - Did the physician spend enough time with you?</td>
<td>5.21</td>
<td>6.19</td>
<td>31.91</td>
<td>yes</td>
</tr>
<tr>
<td>#15 - Did the physician understand your actions?</td>
<td>5.56</td>
<td>6.36</td>
<td>35.66</td>
<td>yes</td>
</tr>
<tr>
<td>#16 - Overall, how satisfied were you?</td>
<td>5.70</td>
<td>6.54</td>
<td>27.96</td>
<td>yes</td>
</tr>
</tbody>
</table>
Research Question 3

Was there a difference in patient satisfaction after training the physicians if the physicians had the results of a patient's clinical TFA interview compared to having only a generic summary of the thoughts, feelings and actions of the patients in Group 1?

Table 10 shows the patient satisfaction differences for the variable "overall how satisfied were you with the care the physician gave you", with whether or not the physician had the results of the clinical TFA interview. There was no significant difference (prob > F = 0.6815) in the patient satisfaction scores of the subjects of the second experimental group. This group was divided into those (group 2A) whose physicians had the actual clinical TFA results (from the researcher interview) or (group 2B) just the summary of thoughts, feelings and actions taken from a compilation of the behaviors of the first control group who were given the clinical TFA interview. It did not matter whether or not the physicians had the actual thoughts, feelings and actions for the subjects.
Table 10

Overall patient satisfaction differences based on whether or not the physician had the specific clinical TFA interview data for each patient.

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFA(Yes/No)</td>
<td>1</td>
<td>.2917185</td>
<td>.2917185</td>
<td>0.17</td>
</tr>
<tr>
<td>Error</td>
<td>98</td>
<td>168.7083</td>
<td>1.721513</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>99</td>
<td>169</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question 4

What were the Characteristics of the subjects used in this study?

1. **Age:** The mean age for the subjects seen in the study was 33.41 years of age varying from 18-68 years of age. Table 15 (Appendix I) shows the distribution. The mean (33.41 years), median (41.5 years) and mode (20-21 years) were quite far apart indicating that the subjects were skewed towards a younger population.

2. **Sex:** 86 out of the 200 subjects were males and 114 out of the 200 subjects were females.

3. **Socio-economic Status:** Socio-economic status was determined by looking at both the educational level completed and employment status. Table 11 shows the distribution of the educational status. The employment status data showed that 118 out of 200 subjects (59%) were employed. Students were considered employed. 82 out of 200 subjects (41%) were unemployed. The data from Table 11 along with the employment status data suggest that the majority were from the lower to lower-middle socioeconomic group.
<table>
<thead>
<tr>
<th>Educational Level Completed</th>
<th>Count</th>
<th>PerCent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade School</td>
<td>36</td>
<td>18.1</td>
</tr>
<tr>
<td>High School</td>
<td>109</td>
<td>54.5</td>
</tr>
<tr>
<td>Two Years of College</td>
<td>23</td>
<td>11.5</td>
</tr>
<tr>
<td>Four Years of College</td>
<td>22</td>
<td>11.0</td>
</tr>
<tr>
<td>Graduate School</td>
<td>10</td>
<td>5.0</td>
</tr>
</tbody>
</table>
4. **TFA triads**: Table 12 shows the TFA triads or patterns of patients in the study. This table shows that by far the most frequent TFA triad was the Thinking Feeling triad with 42% belonging to that group. Acting oriented and compartmental triads where the bipolar scores hit at one extreme of all the behaviors were least characteristic (2%). The Thinking, Feeling, Feeling Acting, Thinking Acting and Thinking Feeling Acting triads had all about the same representation.

5. **Diagnoses**: Table 16 (Appendix J) presents the main diagnoses of the subjects used in the study in the form of what the patient thought was wrong before seeing the physicians and the physicians' diagnoses. The most prominent diagnoses had to do with pain, trauma or virus type illnesses.

6. **Occupation**: Table 13 shows the frequencies of the most represented occupations of the patient subjects. These occupations confirm the educational status and employed/unemployed data that the patient subject group was primarily made up of the lower to lower middle income socioeconomic group.
<table>
<thead>
<tr>
<th>TFA triad</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-Thinking triad</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>F-Feeling triad</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>A-Acting triad</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>TF- Thinking, Feeling triad</td>
<td>63</td>
<td>42</td>
</tr>
<tr>
<td>FA-Feeling, Acting triad</td>
<td>24</td>
<td>16</td>
</tr>
<tr>
<td>TA- Thinking, Acting triad</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>TFA-Thinking,Feeling,Acting triad</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Compartmental triad</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
<tr>
<td>Occupation</td>
<td>Frequency</td>
<td></td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>Factory Worker</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Construction Worker</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Housewife</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Food Service Worker</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Medical Assistant</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Factory Supervisor</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Maintenance Worker</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Housekeeping Worker</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Medicaid eligibility Worker</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Office Manager</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Nurse</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Truck Driver</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Railroad Technician</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Office Worker</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Farmer</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
Research Question 5

Was there a difference between the patient satisfaction scores in relation to the different characteristics of the patients?

The F-ratio and significance values of the patient satisfaction scores for age, sex, education, employment and TFA triad are listed in Table 14. There were no significant differences in the patient satisfaction scores based on these characteristics. However, looking more closely there was a significant difference (p<.01) when the most satisfied patients who had a balanced TFA triad were compared to the least satisfied patients who had a F triad.
Table 14

Summary of Patient Satisfaction Differences According to:
Age, Sex, Education and Employment Status and TFA Pattern.

<table>
<thead>
<tr>
<th>Variable</th>
<th>F-Ratio</th>
<th>Significant?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.96</td>
<td>No</td>
</tr>
<tr>
<td>Sex</td>
<td>2.3</td>
<td>No</td>
</tr>
<tr>
<td>Ed Status</td>
<td>.32</td>
<td>No</td>
</tr>
<tr>
<td>Currently Employed</td>
<td>.89</td>
<td>No</td>
</tr>
<tr>
<td>TFA triad</td>
<td>.37</td>
<td>No</td>
</tr>
</tbody>
</table>
Research Question 6

What were the TFA patterns of the physicians?

Figure 1 presents the TFA patterns of the physicians before and after training as derived from HBI scores of the physicians before the study began and after it was finished.

Physicians 1, 2, 4 and 5 had essentially the same TFA pattern before and after training. Physicians 3 and 6 had more of a shift. Physician 3 shifted from a greater emphasis on feeling to a more balanced TFA pattern. Physician 6 shifted from a TFA pattern to one with a greater emphasis on Action. However, none of these TFA Triad patterns is seen as a significant shift. The most notable aspect of the TFA patterns of these physicians is that all of them tend to reflect relatively equal attention given to the patients' thoughts, feelings and actions.

Correlations were run on the Thinking, Feeling and Acting scores before and after the study to see if these scores had a relationship to one another. The correlation between Thinking scores before and after the study was 0.5489, Feeling scores before and after was 0.7391 and Acting scores before and after 0.7565.
Figure 1 - TFA Patterns of Physicians Before and After Training
CHAPTER 5

Discussion

This chapter summarizes the study, discusses findings, and presents conclusions, implications and research options. The discussion section focuses on each of the research questions. Conclusions evolve from research results. Implications of the findings for counseling, medicine and education are reviewed. Finally, the researcher suggests areas for future study.

Summary

This study determined whether training Emergency Department physicians to communicate with their patients about the patient's thoughts, feelings and actions would change patient satisfaction. Specifically, research occurred in six stages (see Table 4): 1) HBI testing of the physicians, 2) Pilot study, 3) Main study pretraining control group

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collection (Group 1), 4) Training of physicians, 5) Main study posttraining experimental group collection (Group 2) and 6) HBI testing of physicians. The study was theoretically grounded in the counseling literature however, the patient satisfaction and communication literature developed the evaluation materials. The TFA Model organized all of the different modalities offered in the review of literature as well as accommodated all the different behaviors of patients and physicians in the emergency situation. This model provided a framework for analyzing patient behavior as well as developing a training module.

To evaluate the effect of the physician training, the researcher collected patient satisfaction ratings and characteristics before and after training and compared them using a variety of methods.

Research Question 1

Results of the first research question indicated that there was no Hawthorne effect in giving the TFA clinical interview to one group of patients and not the other. There was no difference between group 1A, members who were given the clinical TFA interview by the researcher and
group 1B who were not interviewed. Any extra attention to the patients by giving the clinical TFA interview did not measurably affect patient satisfaction. Even though there was more individual contact for the patients who spent time with the researcher, the questions asked by the researcher may have been so unrelated to what the patients expected from their visit to the emergency room that the extra time was not perceived as meaning they received better care.

Another reason the Hawthorne effect was not noticed may have been that the interview lasted, only about 5 minutes. This was possibly not enough time for patients to feel that they had been treated any better than the others. Every patient had some contact with the researcher, whether it was the full five minute interview or just the one minute consent procedure. The time spent with the researcher, one vs. five minutes, made no difference.

Thirdly, since the physicians did not know which patients had taken the clinical TFA interview, this did not affect their treatment of these patients. Patients saw no difference in the treatment received from the physicians.

Finally, when the patients from group 1A (who received the clinical TFA interview) first came into the Emergency Department they
experienced various forms of new and different attention through the nursing, clerical and physician staff. Therefore, the extra attention they received from the researcher through the administration of the clinical TFA did not seem out of the ordinary for what they expected.

Research Question 2

The second research question dealt with differences between the patient satisfaction scores before and after physician training. There was a significant improvement in the patient satisfaction scores after the physician training. The training program worked possibly because:

1. It enabled the physicians to communicate with the patients about all behavior (thoughts, feelings and actions) important to diagnosis and treatment.

2. It taught the physicians how to be aware of the actual thoughts, feelings and actions of their patients. In turn, this led to fewer miscommunications or omissions so patients and physicians were not as confused.
3. It allowed the physicians to build trust with the patients more effectively and break down fears that interfered with treatment.

4. The training program itself emphasized thinking, feeling, and acting behavior dimensions of the physicians. The training videotape was cognitively oriented, the individual session along with the vignettes were feeling oriented and the observations of the physicians with actual patients were action oriented. Different physicians grasped the concepts at different times in the training process. All three behavioral areas were covered which gave the doctors a chance to practice in the mode most comfortable to them.

In summary, because of physicians increased awareness of thoughts, feelings and actions, it is reasonable to assume that more relevant dimensions of each patients behavior were explored. This could increase the patients' impressions that the doctors were truly interested in their personal welfare.
Research Question 3

The third question dealt with whether or not it made a difference if the physician had the actual thought, feeling and action pattern of each individual patient or just the generic summary card (Appendix F) of the thoughts, feeling and actions of the patients from the pretraining control group (Group 1A).

The individual patient information did not seem to make a difference. This is true possibly because the physicians were concentrating on hitting all three behavioral areas and did not need the extra personal information in order to respond to what the patient was describing. If a patient were describing primarily thoughts, feelings or actions, physicians had received training which helped them to attend more thoroughly to these aspects of behavior. It is reasonable to assume that patients would perceive the doctors' responses as being uniquely personal even with the generic TFA guidelines. None of the physicians found this emphasis on behavior to be cumbersome, lengthen the time with their patients or change their method of diagnosis or treatment.
Research Question 4

The fourth question addressed the demographic make-up of subjects used in this study. Subjects tended to be fairly young (mean of 33.4 years of age) which makes sense given the emergency department environment. The emergency department treats a great deal of trauma and injury, which is more likely to occur in a younger population. In fact, the diagnoses discussed below show that indeed these problems predominated. It is very likely that the age of this population was within a sample population out of the normal distribution of patients who visit the Emergency Department.

The most frequent reasons that people came to the Emergency Department were unexplained pain and trauma (58%). They wanted a) to understand what was causing their pain and b) get relief from it. After they saw the physicians, unexplained pain and trauma and further testing were still the diagnoses in only 13% of the subjects, indicating that in most cases both goals had been achieved. Patients had a clearer understanding of their problem in the form of a more accurate diagnosis.

The second most frequent type of diagnosis occurred in 26% of the subjects who had a final diagnosis of some type of illness. In all cases, the illness was specified after seeing the physician and no one was left just
"sick". An interesting point is that no one came in feeling that they had symptoms caused by stress; however, in four of the cases stress was specified as the final diagnosis.

The sample was 43% male and 57% female. There was no reason to assume that there were any differences between sexes since there was no significant difference in the patient satisfaction scores of men vs. women.

The socio-economic status of the sample was determined by looking at both the educational level achieved and the employment status. Over 72% received a high school education or lower. In addition, 42% of the subjects seen in the Emergency Department were unemployed. In collecting the data, students were considered unemployed. Adjusting the percentage of unemployed subjects to account for the students brings the percentage of unemployed subjects in this study to 25% - still much higher than the unemployment rate of the area studied as reported by the Virginia Employment Commission for 1990.

A reason for this high level of unemployed subjects may be that unemployed patients and students generally do not have medical insurance. Therefore, they often come to the emergency room rather than to private physicians because they cannot be turned away based on an ability to pay. This fact may have made it easier to please the ones who could not pay for
the services. However, there was no significant difference in the patient satisfaction scores of the unemployed vs. the employed patients.

The most frequent TFA pattern of TF (Thinking-Feeling, 42%) may indicate that many people feel that they cannot control what happens to them when they come into the Emergency Department. These findings are consistent with what the analysis of the patient satisfaction literature revealed (see Table 1).

The most frequent thoughts that people had were about what was wrong with them and how they came to be in the Emergency Department. For example, they thought about how badly they were hurt or how ill they were. They wondered why they had not been getting better. They wanted to know what tests the doctors were going to perform or how much the doctors were going to hurt them. They sometimes questioned whether the doctors could really figure out what was wrong with them. In the researcher's opinion after observing the physicians in this study and reviewing the literature, these kinds of thoughts tend to be the most typically explored through current medical procedures.

The most frequent feelings experienced by the subjects had to do with the pain people felt and the fears and frustrations associated with the pain. For example, they were hurting, afraid, upset, tense, in pain,
overwhelmed by the pain and worried about how to get rid of the pain. These feelings may tend to be not as well explored by physicians the way they currently diagnose and treat. After the training, as observed by the researcher, physicians in the study emphasized recognizing the emotional part of the pain in order to treat patients more effectively. This emphasis quite possibly was part of the explanation for the increase in patient satisfaction.

The most frequent actions that patients reported had to do with the tasks they had to perform in order to come to the Emergency Department in the first place. They focused on the events that led up to their being in the Emergency Department. For example, they reported having to arrange for transportation to the Emergency Department, informing their friends and relatives about their problems, and procedures they performed to try to help themselves like stopping the bleeding, staying calm or trying numerous home remedies. Most patients did not understand that they still had power while they were in the Emergency Department to act in ways to aid in their diagnosis and treatment. The A (acting) pattern itself where the acting behaviors were stronger than either the feeling or thinking behaviors accounted for only 2% of the subjects. A few patients were able to ask pertinent questions, call medical staff when needed, communicate
with their relatives in the Emergency Department, or fill in missing information in the history initially taken by the physicians. The physicians in the study tried to make the patients aware that their help was not only encouraged but required to best treat the problems by telling the patients that they needed help if the patients were not being cooperative.

One reason that the patients do not act more in their diagnosis and treatment may be the dehumanizing clerical procedures first experienced by patients when they come to the Emergency Department. When coupled with a sometimes long waiting period, the patients feel less and less in control of and responsible for their treatment.

All 8 TFA patterns found in Hutchins and Cole (1992) were present in the subjects in the study. Therefore, exploring all three areas was necessary to communicate effectively with the patients and not miss crucial behavioral orientations.

As far as occupation is concerned, it is interesting to note that factory and construction workers made up 22% of the patients coming to the Emergency Department. All of these needed work slips from the physicians in order to avoid being penalized for not coming to work--another major function of the Emergency Department. The high student
population of the area was reflected in the number of students seen in the subject group.

**Research Question 5**

The fifth research question addressed the differences in patient satisfaction across the characteristics of the subjects. The improvements were seen only in overall patient satisfaction. The only characteristics associated with a difference was the specific TFA pattern. There was a significant difference on the patient satisfaction scores of the subjects who were feeling oriented (F pattern) and those who were oriented at all three areas (TFA pattern). The feeling oriented ones were less satisfied ($p < .01$) than the ones who had the more balanced TFA pattern. The ones who had the balanced TFA patterns had a better chance at getting their behaviors addressed. Therefore, it appears to be important for the physicians to be especially aware of the feelings of the patients and be sure to address them.
Research Question 6

The sixth question addressed TFA patterns of the physicians. Here there was a shift in the TFA patterns of two of the physicians. Currently, however, there are no methods of determining if this difference in the before and after training TFA (thinking, feeling, acting) patterns of the physicians was significant.

Conclusions

Conclusion #1

Since there was a significant increase in patient satisfaction after physician training it may be concluded that patients and physicians benefit from this training program. The training appears to address weakness in patient-physician communication and can make a difference in how patients and physicians relate. Physicians should incorporate these principles into dealing with patient behavior. This study provides a mechanism through the training program to teach physicians these principles which are clearly supported by the literature. If the doctors
emphasize all three behavioral areas in their patients they will better please their patients. Additionally, the characteristics of the patients themselves support the idea of exploring all three behavioral dimensions.

**Conclusion #2**

It can be concluded from the results of the TFA triads of the physicians that they should strive to address thoughts, feelings and actions in their own behavior towards patients because 1) for the most part, physicians had balanced triads indicating a moderate degree of sensitivity to patients initially thus increasing the probability of addressing the TFA concerns of the patients and 2) after training which focused on different TFA dimensions of behavior, patient satisfaction scores increased indicating an even greater sensitivity to the uniqueness of each patient. If their own behavior was balanced, it would be natural to address all three areas in their patients.
Implications

Counseling

It is not clear that the TFA model itself created the improvement in patient satisfaction seen in this study. More research needs to be done to factor out causal factors such as physicians merely spending more time with patients. However, the results of this study do suggest that counseling may have some ideas to give to medicine. Physicians were able to easily grasp the TFA model and seemed to use it to their advantage. Counseling specializes in solving problems in one to one communication. Since communication is essential in all fields, the TFA model appears to be especially useful in generalizing the knowledge counseling affords to other specialties.

Medicine

An implication of the study for medicine is that improving communication must be further emphasized as a key factor in increasing patient satisfaction and preventing malpractice. Reichl (1990) showed that the highest number of complaints to the Emergency Department concern
staff attitudes. Poor attitudes could reflect an inability to communicate about the behaviors the patients were experiencing. Rusnack (1989) stated that the most frequent reason for malpractice was misdiagnosed Myocardial Infarction. They go on to say that two of the biggest reasons were poor history taking and not recognizing atypical symptoms. By focusing on all the behavior areas and improving communication, physicians could explore more completely all of the symptoms and increase the accuracy of their diagnoses. Teaching this method of communication to physicians may even decrease malpractice insurance cases.

In addition, the hospital could benefit from more comprehensive attention to patient needs by attending to the thoughts, feelings and actions of the patients. The emergency department could possibly benefit by encouraging patient participation and involvement from the time the patient first arrives. 1) Allow the patients more freedom to ask for or get the things they need. 2) Make them more comfortable by asking them initially if they would like anything. 3) Periodically check on them to see if their needs had changed. 4) Inform them of the progress of their tests or how soon the doctor would be there to see them. 5) Place less emphasis on collecting payment information especially in the beginning when the patients are their sickest and most afraid. 6) Eliminate the long waiting
period. These changes could make it easier on the physicians as the patients would already feel they were allowed to act on their needs and would, therefore, take more initiative in their diagnosis and treatment.

**Education**

The implication for education is that groups of people seem to learn most effectively when the material is presented in ways that combine cognitive (T), affective (F), and psychomotor (A) methods of instruction. Creative ways of doing this are already being explored in education (Vogler, 1991). Structuring teaching modules along these lines could possibly result in increasing the ability of teachers to relate content effectively to students.

**Further Research**

This study very strongly suggests that physicians and patients can benefit by the physicians learning to explore all three behavioral areas in their patients. It seems to be very important to help build trust with the patients that the physicians have examined all relevant thoughts, feelings
and actions. This study suggests that this area needs to be explored more fully in order to understand what needs are being met in the patients by exploring all of their behaviors. Duplicating this study on a larger scale and extending it into other medical areas (i.e. family practice, surgery, obstetrics and nursing could prove valuable.

Further study that looks at other factors which effect patient satisfaction are desperately needed. The ideas mentioned earlier about how the emergency department procedures could be changed to help increase patient involvement and responsibility should be tested. Time of day, previous emergency room experience, patients in different emergency department settings and patients in other medical settings need to be evaluated to see if these differences exist there as well.

Medical educators could benefit from testing the theory that the reason the physicians learned the material so well in this study was because it was presented in three ways which incorporated all three behavioral orientations. If it indeed proves to be useful, this may change the way material is presented to students of all disciplines.

Finally, counselors need to fully recognize the power that the TFA model gives to them as clinicians. The TFA model should be used with every client population to give counselors a base pattern or set of patterns
to expect with a given problem. Evaluation methods for public and private practice need to be developed using the TFA approach to increase our credibility in an age of shrinking insurance payments. This process would encourage counselors to use the TFA model on an individual basis with clients to plan where to go and evaluate the success of the therapy.
REFERENCES


APPENDIX A

Summary of TFA principles

There are eight possible triads.

#1 Thinking triad

THOUGHTS
What's wrong
I want medication

FEELINGS
Frustrated
Depressed

ACTIONS
Waiting
Shaking legs

Here you are to primarily focus on the thinking or cognitive aspects of the patient's behavior. Early on you can say something to the patient like "I can see that you want some medication. Let me ask you some questions so I can tell what's wrong and explain your problem and treatment to you. Then we can quickly get that medication." This statement addresses the patient's concerns as well as shows you cognitive behavior.
#2 Feeling Triad

**THOUGHTS**

It hurts
How do I get rid of the pain?

**FEELINGS**

Pain
Nervous

**ACTIONS**

Holding hurt part
Keeping self calm

The feelings are to be focused on here without, of course, forgetting the other areas. A response to the patient might be: "I can see that you are nervous about all of the pain that you are in. I am certain that we can help you control it soon by getting a history and some tests." This addresses the feelings of the patient, the feelings of the physician and the thinking of both as well.
THOUGHTS
What is the doctor going to do?
Am I going to work?

FEELINGS
Tired
Worried

ACTIONS
Sitting by door
Not moving

Actions are most important here. A response might be: "Come sit over here on the bed. I know you are worried about what I'm going to do. I'll be sure to explain everything. Now try to relax as I take your history. I'm sure we can take care of you." This response addresses the thoughts, feelings and actions of both the patient and the physician with the action component being addressed first and most heavily emphasized.
#4 Balanced Triad

THOUGHTS
Who's taking care of things at home?
I was careless

FEELINGS
Mad at self
Frustrated

ACTIONS
Talking
Trying to make light of situation

Here all three areas must be addressed as in #3. No area is more important than the others.
The other triads are:

#5 Thinking-Feeling Triad

The thoughts and feeling must be addressed first and emphasized most.

#6 Feeling-Acting Triad

The feelings and actions must be addressed first and emphasized most.

#7 Thinking-Acting Triad

The thoughts and actions must be addressed first and emphasized most.

#8 Compartmental Triad

This is to be handled like the balanced triad.

SUMMARY
1) Identify the prominent patient behavior areas if there are any.
2) Address these areas first and emphasize them most by acknowledging their existence and stating how they are to be dealt with.
3) Address all other areas as well for both the patient and the physician.
APPENDIX B

Pre Pilot Study Data

An example of the results that the HBI might give was developed by giving the test to six friends or relatives of friends of the researcher who had been seen in an emergency room within the last six months. They were asked to remember their experience in the emergency room and fill out the questionnaire based on their behavior at that time. They were not given the clinical TFA so their actual feelings, thoughts and actions were not identified, only their behavioral orientations. However, the resulting TFA Triads are interesting that they are quite different. The behavioral orientations are defined by where the patients' triads fall with the TFA triangle. The HBI compares bipolar dimensions of behavior: Thinking-Feeling, Feeling-Acting and Thinking-Acting to determine the relative position of behavior of the patient in a specific situation. The test scores result in a bipolar score on each side of the TFA triangle to show preference on two TFA dimensions. These points on the three sides of a triangle are then connected to show the relative interaction of thoughts, feelings and actions in the specified situation (Hutchins, Mueller and Vogler, 1990). Twenty-seven different TFA triad patterns can be identified by the HBI as well as by the TFA clinical interview.
APPENDIX C

Patient Satisfaction Inventory

Date_________ Code#_________

This questionnaire is designed to give feedback to the physicians about their services. They will not know which patients filled out the forms so please be perfectly honest. They welcome your ideas. Think about the time you initially saw the physician until the time he/she discharged you. Please circle the number below each question to show your response. Do not put your name. Make sure that you are objective. Only use the ends of the scale for extreme cases. In other words, circle a 7 only if the doctor was absolutely perfect.

Example-- Was the doctor helpful?

<table>
<thead>
<tr>
<th>No</th>
<th>Somewhat helpful</th>
<th>Very helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In this example, the patient marked the 4 indicating that the doctor was between somewhat helpful.

1. Was the physician available when you needed him/her?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Some of the time</th>
<th>All the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Do you understand how the medications and treatment that the physician prescribed for you work?

<table>
<thead>
<tr>
<th>Do not understand</th>
<th>Understand somewhat</th>
<th>Completely understand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Do you understand what the physician said is wrong with you?

<table>
<thead>
<tr>
<th>Do not understand</th>
<th>Understand somewhat</th>
<th>Completely understand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

119
4. Do you intend to follow all of the physician's instructions?

<table>
<thead>
<tr>
<th>None of them</th>
<th>Some of them</th>
<th>All of them</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Did you think the physician was competent?

<table>
<thead>
<tr>
<th>Knew nothing</th>
<th>Was Average</th>
<th>Was very competent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. From the time you first saw the physician, how long did it take for the physician to treat you?

<table>
<thead>
<tr>
<th>Too long</th>
<th>Acceptable amount</th>
<th>Perfect length of time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. How clearly did the physician communicate with you?

<table>
<thead>
<tr>
<th>Very unclear</th>
<th>Fairly understandable</th>
<th>Very clear</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Did the physician talk about everything related to your problem that was important to you?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Hit some things</th>
<th>Talked about everything</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Did the physician include your feelings in diagnosis and treatment?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Somewhat</th>
<th>All of them</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. Were your expectations met by the physician?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Somewhat</th>
<th>All of them</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

11. Did the physician treat you with compassion?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Somewhat</th>
<th>Great compassion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

12. Did the physician encourage your opinions in diagnosis and treatment?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Somewhat</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

13. Did the physician sympathize with you?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Somewhat</th>
<th>Very well</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

14. Did the physician spend enough time with you?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Acceptable amount</th>
<th>Perfect length of time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

15. Did the physician understand what you did just before and in the emergency department?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Somewhat</th>
<th>Completely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
16. **Overall, (this is very important) how satisfied were you with the care given by the physician?**

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Somewhat</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17. Age _____  
18. Sex- Male_____ Female_____  

19. Educational Status (check highest level completed)-

- Grade school ____________  
- High school ____________  
- Two year college ________  
- Four year college ____________  
- Graduate school or professional degree ____________  

20. Occupation (What do you do?) ____________  

21. Currently employed: Yes __ No ___  

22. Diagnosis- Before treatment (Why did you come to the emergency department?)

__________________________________________  
__________________________________________  

After treatment (What did the doctor say was your problem?)

__________________________________________  
__________________________________________  

23. About how many times have you been to the emergency room in the past 3 years? ________________  
   
Any other comments that you would like to make?

__________________________________________  
__________________________________________
APPENDIX D

Definition of Thinking, Feeling and Acting Behavioral Orientations

Hutchins (1984) describes the thinking oriented person as "characterized by intellectual, cognitively oriented behavior. They tend to behave in logical, deliberate and systematic ways. They are fascinated by the world of concepts, ideas, theories, words and analytic relations. Counselors (or physicians) with this orientation tend to focus on what clients think and the consequences. A primary goal of this approach is to change irrational thinking."

Feeling people, according to Hutchins (1984), "generally tend to behave in emotionally expressive ways. They are likely to go with their feelings in making decisions: "If it feels good, do it." The expression and display of emotions, feelings, and affect provide clues to people with a primary feeling orientation. Counselors (or physicians) with this orientation are likely regarded as especially caring persons. Knotted and tangled emotions are seen as a major source of the client's problems."

Hutchins (1984) further describes the acting person as "characterized by their involvement in their involvement in doing things and in their strong goal orientation. They are frequently involved with others and tend
to plunge into the thick of things. Action types get the job done, one way or another. Counselors (or physicians) with an action orientation tend to see client problems as arising from inappropriate actions or lack of action. These counselors focus particularly on what the client does or does not do, and they tend to encourage clients to begin program designed to eliminate, modify or teach new behaviors."

The following diagram, taken from *Helping Relationships and Strategies* (Hutchins and Cole, 1992, page 156), illustrates the major theories, writers and theorists, and techniques associated with thinking, feeling and acting areas.
Thinking
*Theories:* Rational, logical cognitive.
*Writers and theorists:* Ellis, Maultsby, Beck, Burns.
*Techniques:* Teaching, reading, lectures, tests, self-talk, writing, facts, information.

Feeling
*Theories:* Person-centered, gestalt, existential, humanistic.
*Writers and Theorists:* Rogers, May, Patterson, Perls.
*Techniques:* Affective, gestalt, experiential, music, encounter.

Acting
*Theories:* Behavioral, conditioning, reality, behavior modification.
*Writers and Theorists:* Wolpe, Salter, Lazarus, Krumboltz, Thoresen, Glasser.
*Techniques:* Behavioral, roleplay, physical activity, rehearsal, homework, practice.
APPENDIX E
Clinical TFA Interview

Your behavior is important in helping the doctors to diagnose and treat you. Please help us by answering the following questions:

1) What are you thinking right now?

2) What are you feeling right now?

3) How are you acting right now?

4) Are you thinking more, feeling more, or in the middle?

5) Are you acting more, thinking more, or in the middle?

6) Are you feeling more, acting more, or in the middle?
APPENDIX F

Summary Card

Overall results of thoughts, feelings and actions of patients in Group 1

THOUGHTS
What's wrong?
I want to leave.
It hurts.
What is the doctor going to do?
I want medication.
How do I get rid of pain?
Who's taking care of things at home?
Am I going to work?
What is this going to do to others?
What is the doctor doing right now?
What time is it?
I was careless.
I want something to eat or drink.

FEELINGS
Pain
Nervous
Tired
Worried
Scared
Calm
Curious
Sick
Mad at self
Weak
Frustrated
Strung out
Content
Depressed
Dizzy
Fine
Lonely
Hungry
Understanding
Comfortable

ACTIONS
Waiting
Laughing
Holding hurt part
Sitting
Keeping self calm
Not moving
Relaxing
Rubbing hurt body part
Shaking legs
Crying
Get cup of coffee
Scratching
Keeping foot up
Talking
Controlling breathing
Screaming
Sitting by door
Trying to make light of situation
APPENDIX G

Outline for Training Video

1. Thank You

2. Overall scores very good -hard to improve
   a. 5.6 out of 7
   b. wish it was bad to good instead of good to better

3. Define training- 3 parts
   a. Video
      1. 40 minutes divided into 4 ten minute sections
      2. Will cover overall results
      3. Explain what I want them to do with the next set of patients.
   b. Individual training
      1. 1/2-1 hour
      2. individual results
      3. practice skills
   c. Observation of 3-6 patients to check for skills.
4. What I have done so far-TFA
   a. 100 pts.- 17 for each doctor. 18-65.
      1. 1/2 TFA first- explain profile and how its filled out.
      2. Eight triangles as general categories-
         T, F, A, TF, TA, FA, TFA, none. TF most popular.

5. All patient satisfaction inventory.
   a. 16 variables from literature on pt. satisfaction and malpractice.
   b. T-6, F-5, A-5.
   c. list demographics and results
      1. m=f
      2. Sicker less satisfied- define sicker
      3. no diagnosis less satisfied unless good differential made.
      4. older-more extreme
   d. results and theory of TFA- meld behaviors
      1. Most docs T OK, F less so, A worse one.
         a. patients don't see all physicians actions.
         b. physician feeling once pt. is seen, it is taken care of.
      2. At least one very dissatisfied patient for each physician due to mismatch.
6. Nursing staff
   a. Much is left up to nurses
   b. Different ways of using nurses- sometimes confused

7. Problems
   a. Decreased physician and patient tolerance at night or end of shift
   b. Codes- use staff better to inform waiting patients.
   c. Lack of communication during shift changes.

8. Specify techniques
   a. Ellis-T
   b. Reflection-F
   c. Goal setting-A
   d. However all need do is ask patients about behaviors given on profile or all three with overall profile as guide according to group.
APPENDIX H

Written Test

Vignettes

1) 29 year old female presents with abdomen pain lasting three days and progressively getting worse. No bad medical history. She has a behavior pattern and statements which look like this:

THOUGHTS
How bad is it?
Am I going to die?
What is the doctor going to do to me?

FEELINGS
Scared
Nervous
Angry

How would you respond?
2) 46 year old male with a traumatized ankle from a basketball accident. History of chest pain with no apparent cause. Behavior pattern and statements look like this:

**THOUGHTS**
- Is it broken?
- How long until I can go back to work?

**FEELINGS**
- Frustrated
- Stupid
- Nervous

**ACTIONS**
- Shifting weight
- Groaning when moves

How would you respond?
3) 61 year old man with chest pain. Recent onset with severe pain. History of MI's. Behavior pattern and statements look like this:

THOUGHTS
Hope its OK
How do I get better
I want out of here

FEELINGS
Upset
Lonely
Scared

ACTIONS
Waiting
Rubbing chest
Laying down

How would you respond?
4) A 19 year old female college student with a virus presents with severe congestion and body pain. Behavior pattern and statements look like this:

**THOUGHTS**
I hurt
I'm tired of the pain
I want to be better

**FEELINGS**
Depressed
Tired
Calm

**ACTIONS**
Controlling breathing
Trying to relax

How would you respond?
APPENDIX I

Age Distribution of Patients in Study

Table 15. Distribution of Age

<table>
<thead>
<tr>
<th>Lower Age</th>
<th>Upper Age</th>
<th>Count</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>19</td>
<td>27</td>
<td>13.6</td>
</tr>
<tr>
<td>20</td>
<td>22</td>
<td>37</td>
<td>19.5</td>
</tr>
<tr>
<td>23</td>
<td>25</td>
<td>16</td>
<td>8.0</td>
</tr>
<tr>
<td>26</td>
<td>28</td>
<td>19</td>
<td>9.5</td>
</tr>
<tr>
<td>29</td>
<td>31</td>
<td>11</td>
<td>5.5</td>
</tr>
<tr>
<td>32</td>
<td>34</td>
<td>7</td>
<td>3.5</td>
</tr>
<tr>
<td>35</td>
<td>36</td>
<td>9</td>
<td>4.5</td>
</tr>
<tr>
<td>37</td>
<td>39</td>
<td>7</td>
<td>3.5</td>
</tr>
<tr>
<td>40</td>
<td>42</td>
<td>9</td>
<td>4.5</td>
</tr>
<tr>
<td>43</td>
<td>45</td>
<td>10</td>
<td>5.0</td>
</tr>
<tr>
<td>46</td>
<td>48</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>49</td>
<td>51</td>
<td>10</td>
<td>5.0</td>
</tr>
<tr>
<td>52</td>
<td>53</td>
<td>8</td>
<td>4.0</td>
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<td>54</td>
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<tr>
<td>66</td>
<td>68</td>
<td>2</td>
<td>1.0</td>
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</tbody>
</table>
APPENDIX J

Frequencies of Diagnoses Before and After Treatment

**Table 16. Frequencies of Diagnoses**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Initial Patient Assessment</th>
<th>Physician Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Foreign Body</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Broken Bone</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Muscle/Ligament/Sprain</td>
<td>4</td>
<td>33</td>
</tr>
<tr>
<td>Pain</td>
<td>56</td>
<td>5</td>
</tr>
<tr>
<td>Further Testing</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Headache</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Virus</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>Migraine</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Trauma</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>Post-Head Trauma</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Laceration</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Bruising</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Allergic Reaction</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Sick</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>Fatigue</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Cancer</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Sexually Transmitted Disease</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Infection</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>Puncture Wound</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Diabetes</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Fainted</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Swelling</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Gallbladder</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ear Pressure</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Burns/Chemical</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Seizures</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Alcohol/Drugs</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Heart/Chest Pain</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Stress</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>Initial Patient Assessment</td>
<td>Physician Diagnosis</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Breathing/Congestion</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Tonsillitis</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Rash/Itching</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Insect/Animal Bite</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Kidney Stones</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Bleeding</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Loose Leg Pin</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Pregnancy</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Fluid Around Heart</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Bronchitis</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Gun Shot</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Cyst</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Stroke</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Spinal Problems</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Female Problems</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Dizziness</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Bone Disease</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Total: 200

137
VITA

ELIZABETH S. GILLMORE
3130 Lacey Lane
Troutville, Virginia 24175
703-977-1102

EDUCATION

July 1993  Completed all requirements for Ph.D. from Virginia Tech in Blacksburg, Virginia. A training module for physicians was developed to increase patient satisfaction through patient communication to improve patient-physician relationships for the dissertation.

June 1983  Received L. P. C. (Licensed Professional Counselor) with 121 additional post graduate hours.

August 1978  University of Virginia - M. Ed. in Rehabilitation Counseling (ranked number one in class). Internship at the Woodrow Wilson Rehabilitation Center in Staunton, Virginia. Internship at the Children's Rehabilitation Hospital in Charlottesville, Virginia.

December 1975  University of Virginia - B.A. in Psychology and Economics.

WORK EXPERIENCE

October 1984 to the present - Private Practice. Currently spend approximately 40 hours per week in counseling with a range of clients, i.e. ages range from 2-75; problems include physical breakdown due to stress, depression, anxiety, bulimia, rehabilitation from accidents or severe illness, substance abuse, marriage and family problems including
psychological evaluations, specializing in helping children. Practice includes individuals, families, couples, and groups. Aid courts in decisions by testifying as a medical expert. Patients are referred back and forth with physicians in the area to provide necessary medications.

June 1982 - June 1984 - Clinical Counselor Employed in a full time practice by Family Practice Associates, Lebanon, Virginia - a group consisting of four physicians and myself. Practice included a variety of problems such as stress related physical symptomatology, supportive therapy for chronic psychotics, crisis intervention, depressive and anxiety neuroses, phobias, suicide prevention, substance abuse and rehabilitation clients. Ages included 3-88, inpatients and outpatients; individuals, couples, families and groups. Supervised practicum students through East Tennessee State University. Frequent Court appearances as a medical expert.

July 1980 - May 1982 - Executive director of Day Treatment Program. Developed and maintained the Daytime Aftercare Program for Transitions, Grand Rapids, Michigan which served 500 chronically mentally ill and mentally disabled patients returning from the State institution back to community life. With a staff of 60, provided Occupational Therapy, Art Therapy, a workshop, vocational counseling, community education, Basic Living Skills and individual counseling. Responsibilities included personnel management, budgeting, writing grants, supervision, purchasing, program evaluation, funding, public relations, and direct individual and group client contact.

September 1978 - June 1980 - Guidance Counselor of grades kindergarten through twelve at Greene County Public Schools in Standardsville, Virginia.