

AN ANALYSIS OF RELAXATION THERAPY
AS A NURSING INTERVENTION

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Dedication

To:

B.H., a perfect husband, who happens
to be my best friend;

Mona and Karen, who make me grateful
to be a student;

Karen and Vandy, two peers who make my
life more meaningful; and

Cleo and Pauline Malone, whose daughter
could not have asked for better
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CHAPTER I

INTRODUCTION

The mounting sale of tranquilizers, hypnotics, and sedatives indicates that millions of individuals are failing to cope with their environment. Despite the billions of dollars spent on the drugs, the results do not seem commensurate with the money expended. Hospitals are becoming increasingly more crowded with patients who have attempted to alleviate their worries, tensions, and anxieties by the use of chemotherapy.

The hospitalized patient frequently requests medications for the relief of numerous physical and emotional stresses in lieu of learning how to problem-solve or learning how to cope with his stresses. All too often it seems that physicians and professional nurses contribute to the patient's lack of learning by routinely prescribing and administering chemotherapeutic agents instead of teaching patients to use their own personal resources.

Much has been written about the use of hypnotics and sedatives as adjuncts to the treatment of patients with chronic medical problems. There is a need, however, for a

study of alternatives to the use of hypnotics and sedatives since the use of these is contraindicated in certain chronic medical diseases such as pulmonary emphysema.

Many writings allude to the possibility that useful psychological and physiological changes in patients may be induced by the therapeutic application and consistent practice of a simple relaxation method. Relaxation is a technique that can be learned to gain control over the body. Techniques described in the literature might be utilized in assisting patients to develop physical awareness and control tension. This may be of great value in slowing respiration, and preventing acute anxiety attacks. In utilizing relaxation training as a tool the patient with emphysema may be able to control his emotions so that fear does not precipitate hyperpnea with its resultant cyclic threat. Information yielded from such a study could, perhaps, provide professional nurses and physicians with feasible alternatives to the use of medications in the treatment of patients with chronic medical diseases. Knowledge of the fact that certain patient needs may be associated with specific factors may enhance quality nursing care.

Activity studies are commonly used for budgetary purposes. However, these studies indicate only what is being done. They do not provide data applicable in estimating the patient's actual needs. In certain populations, it may

be useful to study specific treatment modalities for patients, as well as develop alternate nursing interventions.

Statement of the Problem

The problem under consideration in this study was: "What relationship, if any, exists between relaxation therapy as a nursing intervention and the patient's utilization of hypnotics and sedatives?"

Purposes

The purposes of this experimental study were:

1. To determine if there were any statistical changes in the manifest anxiety levels of patients who were taught relaxation therapy
2. To determine what factors, if any, influence the frequency for the intake of hypnotics and sedatives by patients
3. To determine what correlations existed, if any, between the demographic variables, and the learning of relaxation therapy

Background and Significance

In surveying the literature an attempt was made to correlate readings on chronic medical illnesses, anxiety, hypnotics, sedatives, and relaxation training techniques.

Chronic anxiety is common in an estimated 5 percent of the population in the United States (Raskin, Johnson, and Rondestred 1973, p. 263) and is a frequent symptom exhibited by patients with chronic medical illnesses (Freedman, Kaplan, and Sadock 1976, p. 610).

Anxiety has various definitions and descriptions. The term itself is derived from the Latin word "anxius." Its English usage, traced back to the Seventeenth Century, has not changed. It is still seen as a state of agitation, or depression, with feelings of distress in the precordial area (Spielberger II 1972, p. 654).

According to Peplau (1952) anxiety is thought of as an energy which cannot be observed directly. Its presence is inferred from its effects on behavior, when the energy is transformed and is observable. May (1950) describes anxiety as the subjective experience of the organism in a catastrophic condition and as an emotion without a specific object (May 1950). He sees anxiety as an apprehension signaled by some threat to a value which the individual holds essential (May 1950). Kolb (1973, p. 69) describes Sullivan's idea

of anxiety as similar. He explains that it is a signal of danger to self respect, especially to an individual's standing in the eyes of significant others in his life.

Jacobson (1964) claims that anxiety is the excitation of the cerebrospinal nervous system as well as the autonomous nervous system. Anxiety is the psychophysiological response when a threat is perceived and efforts are made to meet or avoid it (Jacobson 1964).

The degree of anxiety has an effect on the physiological functions (Freedman, Kaplan, and Sadock 1976, p. 611). Some of these are increased heart rate, increased rate and depth of respiration, rapid extreme shifts in body temperature, blood pressure, urinary urgency, dryness of the mouth, loss of appetite, dilation of pupils, diaphoresis, and release of sugar by the liver. Additional observable signs of anxiety as seen by Kolb (1973, p. 408) may be demonstrated by a patient who assumes a tense posture, shows excessive vigilance, and has fidgety movements of the hands or feet. The voice may be uneven or strained. When severe, anxiety overflows into the muscular system; it produces increased motor restlessness, a reaction often noted as agitation.

Medications have often been utilized as the treatment of choice for the patients exhibiting mild to chronic anxiety (Freedman, Kaplan and Saddock 1976).

Some physicians feel that the dependent and insecure chronically ill patient may easily become drug dependent when physicians meet the patient's expressions for comfort and continued survival with medications only (Freedman, Kaplan, and Sadock 1976, pp. 858-859). They further state that "the physician may prescribe unnecessary drugs because of his own insecurity in dealing with chronically ill or incurable patients" (Freedman, Kaplan, and Sadock 1976, p. 858).

Hypnotics, sedatives, and tranquilizers are viewed favorably until a person is able to cope with conflict. However, continued use leads to psychological and physiological dependence and habituation. This chronic use can only be regarded as a menace to the health of the individual (Freedman, Kaplan, and Sadock 1976, pp. 856-857).

An increase in the use of chemotherapy for the treatment of emotional disorders began in the 1950's. While drugs play a major role in the treatment, there are other factors involved in the outcome of the therapy. Some of these factors include heredity, social class, environment, attitudes, and expectations of both the patient and therapist (Goodman and Gilman 1970, pp. 198-212).

In minor emotional disturbances exhibited by chronic medical patients, as well as neurotic patients, the sedative drugs have played a major role. Drugs used for the treatment of neuroses are referred to as minor tranquilizers

which include miscellaneous sedatives, central muscle relaxants, and some antihistamines. Tranquilizers suppress anxiety and modify disturbed behavior without producing a profound hypnotic effect (Goth 1972).

Doxepin hydrochloride (Sinequan) is often used in the treatment of patients who have a combination of manifest anxiety with depression. The drug is well absorbed orally and is rapidly metabolized. It has anti-depressant effects as well as tranquilizing properties. The benzodiazepine compounds, including chlordiazepoxide hydrochloride (Librium), diazepam (Valium), and flurozepam hydrochloride (Dalmane) are frequently prescribed in the treatment of anxiety and insomnia. All contain hypnotic properties. Of these, Librium and Valium are frequently used as daytime sedatives. Dalmane, however, is used as a bedtime sedative and is known to produce a more normal sleeping pattern (Kolb 1973, p. 556).

Patients with anxiety symptoms of less than six months' duration and with little prior experience with drug therapy, do remarkably well on a placebo showing 85 percent improvement (Freedman, Kaplan, and Sadock 1976, p. 983).

For more chronic patients with previous drug trials the improvement rate with placebos is less effective (Freedman, Kaplan, and Sadock 1976, p. 183)..

Straughan and Dufort (1969, pp. 121-124) tested the hypothesis that relaxation training helps the recall of verbal material but hinders the recall by subjects who are not anxious. Groups manifesting high and low anxiety were given the anxiety scale of the Minnesota Multiphasic Personality Inventory (MMPI). On the basis of their performance on this scale, a sample of 121 subjects were assigned to one of four different conditions of relaxation:

1) relaxation before the learning trial, 2) relaxation before the recall trials, 3) relaxation before both learning and recall trials, and 4) no relaxation. The groups were exposed to a learning trial of paired associates either from a low difficulty or high difficulty list. Recall was tested immediately and again forty-eight hours later. The findings showed that relaxation was associated with significantly better performance for subjects with high anxiety (Straughan and Dufort 1969).

Paul (1969, pp. 425-429) studied the physiological effects of relaxation training and hypnotic suggestion and found the former to be superior in response systems not under direct voluntary control. The findings indicated that 1) hypnotic suggestion provided decreased physiological arousal and subjective distress within one to two sessions, and 2) progressive relaxation training produced the desired

physiological changes such as efficiency, intensity, and/or extent.

Edelman (1970, pp. 421-425) studied the effects of progressive relaxation of autonomic processes. He compared progressive relaxation with several control procedures which should, theoretically, exert minimal autonomic change. The results cast doubt upon claims that progressive relaxation exerts any unique effect upon autonomic functions. He also reports that the extent of autonomic changes were not dependent on pre-existing differences in anxiety. High anxiety subjects were not affected differentially by progressive relaxation as compared to low anxiety subjects. The findings of the study are questionable because of the greater decrease in trait anxiety of high anxiety subjects (Edelman 1970, pp. 421-425).

A study to determine the value of using systematic relaxation as a nursing intervention technique pre-operatively was done by Aiken (1971, pp. 212-216). The incidence of psychiatric reactions occurring post-operatively was used as a measurement. This study also included the comparison of the incidence of mortality in patients who participated in systematic relaxation and those in the control group. Fifteen adult male patients comprised the sample. Each patient was given a fifteen-minute tape which he was instructed to use whenever he wanted to relax, with the stipulation that

it be used at least four times a day. The major reason Aiken chose systematic relaxation as the intervention is that this technique can be easily implemented by the nurse since she has more direct and sustained contact with the patient. The incidence of post-operative psychotic episodes was lower for the experimental group than had been expected. The mortality rate was the same for both (Aiken 1971, pp. 212-216).

French and Tupin (1974, pp. 282-287) describe the use of a simple and effective relaxation method by patients with serious medical problems. The method consists of muscular relaxation followed by the use of a pleasant, relaxing memory as a center on which attention may be focused with minimal effort, in a meditation-like manner. They further state:

Our experience with this method has been promising in dealing with sleep disturbance, anxiety states, and pain of moderate severity (French and Tupin 1974, p. 287).

The suggestion that widespread application of relaxation therapy for the treatment of patients with chronic medical problems assisted in the formulation of the following hypotheses.

Hypotheses

The hypotheses tested during this study were:

- H₁ Relaxation therapy, when applied to patients with chronic medical diseases will change the frequency of hypnotic and sedative utilization.
- H₂ Manifest anxiety levels of the patients with chronic medical illnesses will show a statistically significant change, following the application of relaxation therapy as a nursing intervention.

Definition of Terms

For the purpose of this study, the following definitions were used:

1. Hypnotics - drugs used for the primary purpose of producing sleep
2. Sedatives - drugs used for the primary purpose of producing a calming and/or relaxing effect
3. Relaxation therapy - a specific technique for producing progressive muscular relaxation and the use of a light hypnotic trance to teach meditation, using a pleasant memory as the mantra (Appendix B)

4. Nursing intervention - relaxation therapy taught by a clinical nurse specialist
5. Clinical nurse specialist - a clinician holding a master's degree or above in nursing, who possesses knowledge, skill, and competence in a specialized area of clinical nursing (American Nurses' Association, Congress of Nursing Practice 1974).

Limitations

Variables not controlled which may have influenced the outcome of this study were:

1. Age
2. Educational level
3. Ethnic Background
4. Geographic location
5. Significant others
6. Personnel assigned to the study unit
7. Length of hospital stay
8. The Hawthorne effect
9. Religion

Delimitations

Variables in this study which were controlled were:

1. Sex - only males were included
2. Treating physician - the same female physician treated all subjects included in this study
3. Chronically ill medical patients - all subjects included in this study had a primary diagnosis of pulmonary emphysema
4. This study was confined to one 22-bed pulmonary care ward in a 222-bed Federally-operated hospital in a rural, Central Texas town

Dependent Variables

The following dependent variables were monitored for all subjects in this study:

1. Frequency of the utilization of hypnotics and sedatives
2. Changes in pre and post-systolic/diastolic blood pressure, apical heart rate, radial pulse, and respiration rate
3. Changes in manifest anxiety levels as measured by the Taylor Manifest Anxiety scale

Assumptions

For the purposes of this study the following assumptions were made:

1. Motivation is essential to the learning process
2. Learning produces a change in the response or behavior of the individual
3. Learning is the goal of teaching
4. Subjects answered questions truthfully

Summary

This study was concerned with the use of a simple method of relaxation therapy used as a nursing intervention to provide certain chronic medical patients with alternatives to the use of hypnotics and sedatives for the relief of anxiety. The literature was reviewed and was supportive in the formulation of hypotheses.

Overview of the Succeeding Chapters

Chapter II presents a review of the literature which includes the pertinent historical development of relaxation therapy and a further expansion of anxiety and its relationship to patients with chronic medical problems.

Chapter III presents the development of the pre- and posttest, the procedure for teaching relaxation therapy, the demographic data sheet, and their use in the data collection. Chapter IV presents the analysis of the data collection. Chapter V includes the summary of the study and presents implications, recommendations, and conclusions drawn from the study.

CHAPTER II

REVIEW OF LITERATURE

Role of the Psychiatric Clinical Specialist in a Medical Setting

The knowledge and skills possessed by the clinical specialist in psychiatric nursing are necessary and applicable in providing quality nursing care for patients who are physically ill. The patients with chronic medical illnesses have feelings of intense anger, depression, elation, sorrow, intense hostility, and anxiety (Riehl and McVay 1973).

Through the years, there have been many attempts to encourage professional workers to recognize the interrelationship between the body and the mind (Mereness 1970, p. 287).

Placing psychiatric units in the general hospitals and the use of the term "psychosomatic medicine" are but two of the many trends (Mereness 1970, p. 287). In a few remote areas a limited number of psychiatric clinical specialists have begun to establish their roles in some medical hospitals. The functions of these nurses are varied, ranging from serving as consultants to nursing service to functioning

as coordinators of patient care (Riehl and McVay 1973, pp. 284-285).

A clinical specialist of this type, prepared at the master's level, with knowledge and expertise in the field of psychiatric nursing, could make a significant contribution in the care of the chronically ill medical patient. She could initiate research studies in nursing, in an effort to determine various alternatives to present-day methods of care (Leininger 1970, pp. 159-160).

Relaxation Therapy from 1968 to Present

Relaxation therapy has been the focus of much research. Bernstein and Berkovec (1973, p. 17) claim that

. . . the research studies have developed in three major areas: (1) specification of training, (2) refinement of the measurements of the physiological effects of relaxation, and (3) identification of behavioral problems best treated by relaxation.

The theories of early methods of relaxation therapy were primarily concerned with skeletal tension (Benson 1976, p. 100). In 1908 Jacobson (1938) while at Harvard, quite unexpectedly discovered the significance of neuromuscular tensions, and it was then that interest in relaxation was born. Many laboratory studies resulted in a method to produce an extreme degree of neuromuscular relaxation. An observation frequently made was that even when a person

thought that he was completely relaxed, there continued to be signs of residual tension (Jacobson 1938).

Jacobson (1938) wondered if this residual tension might not diminish or disappear through cultivation of bodily relaxation. He defined residual tension as "a fine tonic contraction along with slight movements or reflexes" (Jacobson 1938, p. 29). He further explained that residual tension is often reflexly stimulated by distress or pain. Progressive relaxation, he believed, was the answer to the gradual disappearance of residual tension (Jacobson 1938).

In the course of further experimentation, Jacobson (1938) observed that individuals who had not been trained to relax were less likely, at times of stress, to resolve to voluntary relaxation. Even if they had the ability, they failed to apply it. He also concluded that once relaxation had been cultivated, it proceeded automatically with little or no conscious effort. He observed that as relaxation was learned, attention span decreased while trying to relax. Finally, he maintained that no matter what natural propensities an individual has toward relaxation, there is always more that he can be taught (Jacobson 1938).

In 1948, Wolpe discovered Jacobson's progressive relaxation techniques while working on counter conditioning of fear responses (Bernstein and Berkovec 1973). Two important developments were contributed: 1) more efficient

relaxation programs reduced the amount of training required; and 2) treatment emphasis was placed on the cause of anxiety rather than on the anxiety response. Since anxiety is a "learned response" to a certain stimulus, it is more efficiently eliminated by developing an alternative response, e.g., relaxation, than investigating the situations which elicit the anxiety (Bernstein and Berkovec 1973, p. 4).

In 1968 Ziesset (pp. 18-27) compared systematic desensitization and progressive relaxation plus application. The report indicated that the sample was not very homogeneous as forty-eight patients, age twenty to fifty years of age and hospitalized from one month to two years were randomly selected. Patients receiving individual or group therapy were excluded from the study. Patients who claimed previous experience with relaxation therapy were likewise excluded. Of the conclusions, the following seem pertinent:

1. Systematic desensitization is effective in the modification of the behavior of some schizophrenic patients
2. Both desensitization and relaxation proved to be more effective in reducing two classes of anxious behavior when compared to individuals receiving either an equivalent amount of individual attention or the mere passage of time in a structured environment (Ziesset 1968, pp. 18-27).

There are several techniques of relaxation therapy which evoke the same physiologic responses (Benson 1976, p. 97). Some of the techniques mentioned are: autogenic training, progressive relaxation, and suggested deep relaxation with hypnosis.

Autogenic training is a technique based on six mental exercises devised by Dr. H. H. Shultz, a German neurologist. The subjects using this training exercise must neither be intense nor compulsive, but of a "let it happen" nature called "passive concentration" (Benson 1976, pp. 97 - 100). Genova (1973, pp. 125-130) reported an investigation of the application of autogenic relaxation to nineteen middle and long-distance runners with the following conclusions:

1. The physical functions were more completely restored after the application of autogenous training
2. The restorative effect of five minutes of autogenous training was the same as the effect of one-hour restoration process
3. Under high mountain conditions, autogenous relaxation might be used as a means of pre-meditated restoration of the mental functions in a shorter period of time after runs (Genova 1973, pp. 125-130).

Progressive relaxation reinforces the relaxation of voluntary skeletal muscles--all muscles of which a person has conscious control. Progressive relaxation is practiced with the individual lying in the prone position. The goal of treatments is to achieve the deepest degree of relaxation possible (Benson 1976, p. 100). Much research has been done comparing hypnosis and the various methods of relaxation therapy. A research study done by Bullard and DeCoster (1973, pp. 93-97) investigated the relative effectiveness of hypnosis and relaxation. They used forty-eight female undergraduates randomly assigned either to a hypnosis or relaxation procedure. Pre and posttest measures were used to measure the differences between the two groups. The data revealed that hypnosis elicited more compliance than relaxation, because of its association with behavioral compliance.

A study reported by Walrath and Hamilton (1975, pp. 190-197) concerning the autonomic correlates of meditation and hypnosis discussed the use of peripheral autonomic responses during meditation and auto-hypnosis on three randomly assigned groups with ten subjects in each group. The study is well designed. The results suggested that at least for this particular study, for the measures investigated, meditation and hypnosis do not differ from each other nor from instructed relaxation.

A more recent technique of relaxation therapy, reported in the literature by French and Tupin (1974, pp. 282-287) as a "simple relaxation method," as well as Mathews' and Gelder's (1969, pp. 1-12) method of "brief relaxation training" consists of three successive components: First, the subject's breathing and muscles are relaxed; second, he is instructed to similarly allow his mind to wander in the direction of a restful and pleasant memory; third, having indicated by a move of his finger that he has found a suitable memory, he is instructed to focus attention in the area by presenting the memory to his mind and allowing himself to experience the memory as fully as possible (French and Tupin 1974, p. 282).

The measurements of the physiological effects of relaxation are numerous. Benson (1976, p. 98) gives a large listing such as "oxygen consumption, respiratory rate, heart rate, alpha waves, blood pressure, and muscle tension." He also lists the given relaxation technique eliciting the physiologic changes. For instance, autogenic training decreases respiratory rate, heart rate, and muscle tension, but increases the alpha wave reading, and the results of blood pressure measurements are inconclusive at this time (Benson 1976, pp. 98-99).

One behavioral problem treated by relaxation therapy is presented by Marshall and Strawbridge (1972, Vol. 10, pp. 355-366). The authors used "mental relaxation as an adjunct to desensitization of phobias" (p. 355). Gutwirth (1972, p. 28) listed anxiety and insomnia as two behaviors subject to improvement with various relaxation techniques. A number of patients with physical illnesses have also been treated with various relaxation exercises. French and Tupin (1974, p. 283) reported that the use of a simple method of relaxation "has been promising in dealing with sleep disturbance, anxiety states, and pain of moderate severity" (French and Tupin 1974, pp. 283-284).

Conceptualization of Anxiety

Anxiety results in the malfunction of the cognitive systems and prevents a person from relating meaningfully to his environment. Anxiety is usually accompanied by behavioral and psychological manifestations (Freedman, Kaplan, and Sadock 1976).

Freud (Speilberger, I, 1972) claims that anxiety may be differentiated from fear, anger, grief, or sorrow because of its unique combination of experiential and physiological characteristics. The unpleasant feeling is consistent with feelings of apprehension, tension, or dread. The physiological and behavioral changes are much the same as those pre-

viously noted. Freud's (Speilberger, II, 1972) concept of neurotic anxiety provides an example of this process. Objectively, a real danger situation exists in the external world. This situation is then viewed as threatening, and an emotional reaction follows in direct proportion to the perception of danger. In affective anxiety the source of danger is internal and stems from sexual or aggressive impulses repressed in childhood (Speilberger, II, 1972).

Free-floating anxiety (Freedman and Kaplan 1976) is the key symptom of neurosis. The individual perceives a feeling of dread and cannot logically determine the specific cause. Physiological manifestations may occur chronically as part of anxiety. "Through its effect upon the autonomic system" (Kolb 1973, p. 112), anxiety disturbs physiological functions and finds expression in psychophysiological symptoms.

Lazarus and Averill (Speilberger, II, 1972) define anxiety as an emotion based on the appraisal of threat entailing, symbolic, anticipatory, and uncertain elements. Watson (1971, p. 72) stated that "the presence of anxiety is a signal that something needs to be done by someone" Assisting patients to deal with anxieties is one of the main functions of the nurse (Watson 1975, p. 73).

Chemotherapeutic Considerations

When anxiety is dominant and relatively unresponsive to the general measures of support, understanding, and empathetic listening, biologic treatment methods are often employed to reduce anxiety to a level at which it is again responsive to these methods. Effective drugs in current use include Librium and Valium (Watson 1971, p. 73). These drugs are considered to be central nervous system depressants as well as centrally-acting muscle relaxants, capable of producing a mild sedative effect with low toxicity (Freedman, Kaplan, and Sadock 1976, p. 987).

Librium and Valium differ in their rate of absorption. With Librium the drug is slowly excreted in the urine with 12 percent accounted for in 96 hours. Following the ingestion by man the half life of Librium is 24 hours. Following the ingestion of a single dose of Valium, a portion is excreted rapidly (half life is from 7 to 10 hours) (Freedman, Kaplan, and Sadock 1976, pp. 977-981). The other half is excreted slowly (2 to 8 days). Seventy percent of the metabolites are excreted in the urine (Freedman, Kaplan, and Sadock 1976).

There are several factors on which the characteristic effects of a drug must depend. Concentration of the drug, rate of absorption, distribution, binding or localization in

tissues, inactivation, and excretion are all factors to be considered. Certainly the diffusion and transport of drugs across the various cell membranes are an important consideration. The rate of gastric emptying, the gastrointestinal pH and the intestinal motility are among the physiological factors influencing absorption when drugs are given orally (Guyton 1966).

Freedman, Kaplan, and Sadock (1976, p. 986) state: "The behavioral toxicity of the minor tranquilizers is slight and barely measurable at normal doses." Kolb (1973, pp. 620-638) suggests that some antipsychotic medications have a greater sedative effect than certain other antipsychotic drugs. For a certain type of anxiety and some depressions, antipsychotic drugs, such as chlorpromazine and thioridazine are utilized.

Specific techniques for dealing with anxiety can be successfully employed by nurses after appropriate training. Drugs may be of value, but are never the whole story when anxiety is in question, for anxiety is always an experience with interpersonal and social implications. Methods of dealing with anxiety form a substantial part of all forms of nursing (Watson 1971, p. 83).

Summary

The role of the psychiatric clinical specialist in a medical setting was outlined. Literature on the subject was limited.

The various methods of relaxation therapy were explored. Autogenic relaxation was explored fully, as well as a brief version of relaxation training. In addition the physiological changes elicited by different techniques of therapy were reviewed.

Physical pain, insomnia, phobias, and anxiety states were identified as behaviors amenable to change by the application of relaxation therapy. Concepts of the phenomena of anxiety and an article describing measurements of manifest anxiety levels were explored extensively, since anxiety was one of the factors to be monitored in this study.

Information and knowledge gained from the review of literature was helpful in developing a procedure for the data collection discussed in Chapter III.

CHAPTER III

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

Introduction

This study was conducted to evaluate the effects of a simple method of relaxation therapy (Appendix B) as a nursing intervention when applied to patients with chronic medical illnesses. Permission to implement the study was obtained from the Human Rights Committee and the Graduate School of Texas Woman's University. Written permission to conduct this study was also obtained from the participating hospital (Appendix A). All participants in the study were given an explanation of the research study and signed an informed consent statement (Appendix A) prior to implementation of the study.

Setting

A Federally-operated general medical hospital was utilized for this study. The main building is a five-story brick structure with a bed capacity of 222, serving approximately 88 intermediate and 134 medical patients, including

20 pulmonary and 5 intensive care unit beds. The study hospital is located in a small, rural Central Texas community with a stated population of 8,692. In addition to this area much of the patient population is drawn from other small, surrounding Central Texas towns, as well as from many East Texas towns. The class and economic structure of the study areas were primarily white, lower middle class, retired Protestants.

A ward of this hospital with a total bed capacity of 42 was utilized for this study. The ward is divided into two units. Five-South, a unit of 22 beds, housing patients with various chronic medical illnesses and Five-North, a 20-bed unit utilized exclusively for the care of patients with chronic obstructive lung diseases. The average length of stay for patients was 120 days. Twenty-four hour staffing coverage for the total ward consisted of the following:

- 1 - fulltime female physician
- 6 - fulltime registered nurses (all females)
- 1 - part-time registered nurse (female)
- 2 - licensed vocational nurses (female)
- 7 - nursing assistants (6 males, 1 female)
- 1 - fulltime ward clerk (female)

Population

From the total population of 42, 22 patients were excluded from this study. The reasons for exclusion and distribution of those excluded were:

1. 10 patients stated they had had previous relaxation training
2. 3 patients had primary diagnoses of chronic brain syndrome
3. 2 patients had diagnoses of chronic schizophrenia
4. 2 patients were undergoing alcohol detoxification
5. 1 patient with a diagnosis of chronic obstructive lung disease was acutely ill with pneumonitis
6. 2 patients with a diagnosis of diabetes mellitus refused to sign a consent form to participate in the study
7. 1 patient with a diagnosis of lupus erythematosus refused to participate in the study
8. 1 patient with a diagnosis of arteriosclerotic heart disease refused to participate in the study

The population for this study included the remaining twenty patients, all with a primary diagnosis of chronic obstructive lung disease. The twenty patients were assigned randomly either to Group A for six daily sessions of relaxation therapy or to Group B for the control procedures. Two study subjects from Group A became acutely ill and had to be terminated from the study on the second day while three subjects from Group B were discharged four days following the initiation of the study leaving a total of 15 male subjects who completed the twenty-one day study.

Tools

Standardized

The Taylor Manifest Anxiety Scale (Taylor 1953, pp. 285-290) was used in this study. "The Manifest Anxiety Scale, consisting of items drawn from the Minnesota Multiphasic Personality Inventory judged by clinicians to be indicative of manifest anxiety, was developed as a device for selecting subjects for experiments in human motivation (Taylor 1953, p. 290). The twenty-eight item revised form of the Manifest Anxiety Scale (Appendix B) is based on the 'Ja scale' of Welsh" (Welsh and Dahlstrom 1960). To determine the stability of the anxiety scores, groups of individuals have been tested and retested on the scales after

various intervals. In one instance, the test-retest coefficient was found to be .82 over five months, and .81 for an interval of 9 - 17 months (Taylor 1953, p. 286). This psychological measure was used as a pretest and posttest for all subjects in the study group. Changes in the pre and post scores of the Taylor Manifest Anxiety Scale were dependent variables monitored for all subjects. The pencil and paper tests were administered by a registered nurse and analyzed by a psychologist.

Researcher-Developed

Relaxation therapy (Appendix C) exercises which were applied to the experimental subjects in this study were adapted from the same method described by French and Tupin (1974, pp. 282-287). Validity and reliability of the instrument are based only on five case studies presented by the authors (French and Tupin 1974, p. 284).

The tools developed by the researcher for this study were:

1. Demographic data
2. Data Tabulating Form
3. Relaxation therapy - Explanation to clients
4. Sedative frequency count sheet
5. Hypnotic frequency count sheet
6. Relaxation Therapy

Data Collection

One week prior to the initiation of the research study, briefing sessions were held with all staff members on the study unit. The objectives of these sessions were to provide relevant information about the proposed study and to elicit staff cooperation in the collection of data. A total of six hours was utilized in educating staff about the use of data collection forms, as well as the inservice education concerning the procedure for the monitoring of apical heart rates.

Before details of the treatment were discussed all patients attended an assessment session in which the physiological pretests were administered. Patients were seated in a quiet, dimly-lit room and the function of each physiological measure was explained while the measuring device was applied and results monitored. The following protocol was followed in collecting the remaining prestudy data:

1. The instructions for completion of the Taylor Manifest Anxiety Scale were read to the participants and questions were answered
2. The participants were requested to complete the demographic data sheet (Appendix D)
3. Questions pertaining to the actual test items were not answered during the examination

4. The instructions pertaining to PRN medication usage were read (Appendix F)

At the end of the pre-study assessment, the patients in Group A, the experimental group, received the following:

1. Monitoring of physiological variables immediately prior to and thirty minutes following the application of relaxation therapy
2. Application of a simple method of relaxation therapy (Appendix C) similar to the method used by French and Tupin (1974, pp. 285-287). Patients were trained in one-hour daily sessions for six days. In all six sessions they were shown, and then practiced, relaxation exercises for several muscle groups, and were taught to use a pleasant memory as a mantra for meditation
3. Frequency counts of all hypnotics and sedatives utilized by all subjects for the 21-day study period were monitored
4. Completion of the post study tests consisting of the Taylor Manifest Anxiety Scale (1953) and the monitoring of physiological variables

Group B, the control group, received the following:

1. Frequency count of the hypnotics and sedatives utilized during the 21-day study period
2. Monitoring of physiological variables prior to, and thirty minutes following, the ingestion of hypnotics and sedatives
3. Completion of post study measures consisting of the Taylor Manifest Anxiety Scale and monitoring of the physiological variables

Treatment of the Data

After all data were collected, they were transferred to computer cards and analyzed by a statistical analysis system. Each physiological variable including the Taylor Manifest Anxiety Scale, as well as the frequency of the intake of hypnotics and sedatives were subjected to analysis of variance. The design used was such as to allow examination for possible differences between groups, between occasions of testing (before and after treatment), and the interaction between these effects. The interaction term between groups and occasions provided the appropriate test of the hypotheses.

Summary

The Taylor Manifest Anxiety Scale (1974) and five physiological variables were used as a pre and posttest measurement for all patients (N=15). A frequency count of the utilization of sedatives and hypnotics were collected for all patients (N=15) for the 21-day study period.

Group A (N=8) received relaxation therapy one hour daily for the first six days of the study. The participants were asked to practice the relaxation therapy on their own one hour prior to bedtime daily. Systolic and diastolic blood pressure, apical heart rate, radial pulse, and respiration rates were monitored prior to the training, and thirty minutes following each session.

The participants in Group B (N=7) had their vital signs monitored prior to the ingestion of PRN sedatives and hypnotics and thirty minutes following the utilization of the medication during study day one through study day six. The data were collected by the investigator who also administered the Relaxation Therapy, and the Taylor Manifest Anxiety Test. The psychological tests were scored by a psychologist. The data were then tabulated and transferred to computer cards by a statistician.

Although subjects had been randomly assigned to the two groups, the F-test formula was applied to the pretest scores of the anxiety scale to ascertain if there was any significant difference between the groups. The same test was applied to pre and posttest scores to determine if a significant difference existed between the performance of the groups. An analysis of variance was applied to each physiological measurement, as well as the scores, and also to the number of hypnotics and sedatives. This was done to determine a comparison of the differences between the groups. The following chapter describes the statistical analysis of the obtained data.

CHAPTER IV

ANALYSIS OF DATA

A group of 15 male patients with a diagnosis of chronic obstructive lung disease participated in this study. The mean age of the participants was 59.3 years; the mean educational level was 10 years; and the mean number of days hospitalized prior to the study was 81.3 days. The mean number of admissions in other hospitals was 2.7, while the mean for number of hospitalizations in the study hospital was 2.0. The demographic data by groups are summarized in Table 1.

Table 1. Comparison of Demographic Data of Group A and B by Mean Values

	Group		Total
	A (N=8)	B (N=7)	(N=15)
	\bar{x}	\bar{x}	\bar{x}
Age	60.3	58.2	59.3
Educational level	10.8	9.4	10.1
Number of days in hospital	75.0	88.5	81.3
Hospitalization at other facility	3.4	2.0	2.7
Hospitalization at this facility	2.3	1.7	2.0

Other demographic variables were analyzed to derive the relative frequencies for comparison across the two groups. The data revealed that the population consisted of nine Caucasians and six Blacks. Ten subjects were married, four were divorced, and one was single. Ten of the participants resided in the Central Texas area, while five lived in East Texas. The entire population was of the Baptist religion.

The ratios of these demographic variables are summarized in Table 2.

Table 2. Comparison of the Ratios of the Demographic Variables

	Percentage	
	Group A	Group B
Ethnic Background		
Caucasian	62.5	57.1
Black	37.5	42.9
Marital Status		
Married	62.5	71.4
Divorced	12.5	28.6
Single	12.5	0.0
Religion		
Baptist	100.0	100.0
Geographic Origin		
Central Texas	62.5	71.4
East Texas	37.5	28.6

The variable of sleeping area of the total population was analyzed to determine a comparison across the groups (Table 3).

Table 3. Comparison of Patients According to Sleeping Unit

	Percentage	
	Group A	Group B
Private room	37.5	28.5
Semi-private room	37.5	71.5
Ward	25.0	0.0

Three patients out of Group A had a total of 14 visits by significant others. In Group B, two patients had a total of 21 visits by significant others. All significant others who visited were the patients' wives. There is a correlation of visitors to geographic location. Twelve of the 14 visitors in Group A lived in Central Texas. In Group B, the 21 visits were made by 2 people who lived in the Central Texas area. One patient in Group B had 19 of the visits recorded during the study period.

Although subjects had been randomly assigned to the two groups, pretest Taylor Manifest Anxiety scores were compared to ascertain if the groups were approximately the same. The F-test was used to treat the data. Results yielded

no significant differences among the groups which indicated that subjects in both groups were essentially equal. Table 4 reflects these comparisons.

Table 4. Comparison of Pretest Scores,
Groups A and B, Using the F-Test

Taylor Manifest Anxiety Scale - Pretest		
	Group A (N=8)	Group B (N=7)
S.D.	5.83	5.98
F-Value	3.86	
df	7	6
Prob. F =	0.1203	

No significant treatment effects (interaction terms) were found in the analysis of either the physiological or psychological data. No significant differences were found between groups. Means for each group on each occasion of testing are given in Table 5.

Table 5. Mean Values of Anxiety Ratings and Physiological Variables for Each Group Before and After Treatment

Description of Measures	Group A (N=8)		Group B (N=7)	
	Pre	Post	Pre	Post
Taylor Manifest Anxiety Scale	9.1	7.0	9.9	8.7
Systolic blood pressure	121.9	118.0	122.0	123.0
Diastolic blood pressure	76.1	73.5	78.0	79.0
Apical heart rate	80.3	76.2	76.0	79.0
Radial Pulse	82.8	78.3	82.0	81.0
Respiration	20.0	17.2	19.0	18.0

Since there were no significant differences between the physiological variables of Groups A and B, a correlation coefficient test was applied to the differences between the means of the pre and post physiological variables of Group A to determine if there were any significant correlations. Table 6 summarizes these data.

Table 6. Correlation Coefficients
Group A, Pre and Post

Physiological Variable	Rho	Coefficient Variance
Systolic blood pressure	.9705	.0001
Diastolic blood pressure	.9026	.0021
Apical heart rate	.9437	.0004
Radial Pulse	.9793	.0001
Respiration	.9705	.0001

Since rho is $<.70$, there is a significant correlation between the pre and post physiological variables.

During the study period 496 sedatives and 86 hypnotics were utilized by the total population. Table 7 shows the frequency of the utilization of the sedatives and hypnotics, and their distribution across groups as compared to the total population.

Table 7. Number of Sedatives and Hypnotics
Utilized During the 21-Day Study Period

	Group A (N=8)	Group B (N=7)	Total (N=15)
Sedatives	148	348	496
Hypnotics	27	59	86

Table 8 demonstrates the mean number of sedatives and hypnotics utilized, and the frequency distribution among the population and by group.

Table 8. Mean Number of Sedatives and Hypnotics Utilized During a 21-Day Study Period

	\bar{x} Number		
	Group A (N=8)	Group B (N=7)	Total (N=15)
Sedatives	18.5	49.7	33.0
Hypnotics	3.4	8.4	5.6

Testing the difference between the means of pretest scores and posttest scores, as well as the difference between the means of sedatives and hypnotic utilization was accomplished by analysis of variance. It was determined that there was a statistically significant difference (at the 0.001 level of confidence) in the utilization of sedatives of Group A as compared to Group B (Table 9).

Table 9. Comparison of the Variance of Two Dependent Variables and Groups A and B

	Measure			
	Sedative		Hypnotic	
	Group A (N=8)	Group B (N=7)	Group A (N=8)	Group B (N=7)
S.D.	14.77	24.67	2.83	9.14
F-value	9.13		2.22	
df	14.00		14.00	
Prob. F =	0.0098*			

Since there was a statistically significant difference in the utilization of sedatives between Groups A and B, the data were examined further to determine the types of sedatives and the respective dosages utilized by each subject within each group (Table 10).

Table 10. Mean Value of Type of Sedatives and Individual Doses Utilized Within Group A and Group B

	Group A		Group B		Total	
	No.	\bar{x}	No.	\bar{x}	No.	\bar{x}
Sinequan 25 mg.	3	27.0	4	46.0	7	38.3
Librium 10 mg.	1	9.0	1	51.0	2	30.0
Elavil 25 mg.	1	6.0	0	-	1	6.0
Mellaril 25 mg.	1	16.0	2	56.0	3	42.7
Thorazine 25 mg.	1	34.0	0	-	1	34.0

Summary

A single factor analysis of variance was applied to the pre-treatment measures. No significant differences between the groups were revealed, indicating that the groups were successfully matched. A two-factor analysis of variance with repeated measures on one factor examined the changes that occurred with treatment.

The interaction effect, "groups occasion," indicates that there was a statistically significant decrease in the number of sedatives utilized by Group A. The interaction effect was significant ($PR F = 0.0098$). There was no statistically significant difference between Group A and B in the utilization of hypnotics. Hypothesis number one, relaxation therapy, when applied to patients with chronic medical diseases will change the frequency of hypnotics and sedatives utilization, was partially supported by these findings. However, due to the level of significance of the interaction effect, further evaluation of the data within Groups A and Group B was analyzed to determine specific sedatives and specific dosages.

A correlation coefficient was determined on pre and posttest physiological variables which showed a statistically significant positive correlation between pre and posttest scores. Hypothesis number two stated, levels of manifest

anxiety of patients with chronic medical illnesses will show a statistically significant change following the application of relaxation therapy as a nursing intervention, was not supported by the data analyzed. However, the levels of manifest anxiety in Group A did not increase while there was a statistically significant decrease in the number of sedatives utilized by the group as compared to Group B.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Summary

An experimental research study was conducted to determine the effectiveness of a simple method of relaxation (Appendix C) as a nursing intervention when applied to patients with a chronic medical problem. The design used allowed for examination of possible differences between groups, between the occasions of testing, and the interactions between those effects. The interaction term between groups and occasions provided the appropriate tests of the hypotheses proposed in this study. The results support the hypothesis that relaxation therapy, when applied as a nursing intervention, will change the frequency of the utilization of sedatives in patients with chronic medical problems. The results of this study do not support the hypothesis that relaxation therapy will decrease the manifest levels of anxiety in patients with chronic medical illnesses.

All demographic data were analyzed by the use of descriptive measures. There were no statistically significant correlations determined by the tools used in this study.

Conclusions

Based upon the findings of this study, the following conclusions are made:

1. A registered nurse with expertise in relaxation training can therapeutically teach patients the skill of relaxation and meditation
2. Relaxation training includes several conditions which might be expected to decrease physiological variables. For example, the use of familiar monotonous instructions, and redirection of attention to internal stimuli
3. Educational background or age did not seem to influence the learning of relaxation
4. There was a significant decrease in the intake of sedatives by those patients who were taught relaxation therapy
5. A more sensitive tool for measuring levels of anxiety should be used for the pre and posttest
6. Levels of manifest anxiety in patients with chronic medical illnesses did not change
7. The patients who were taught relaxation therapy did not demonstrate any increase in levels of manifest anxiety even though the group utilized

significantly fewer sedatives than those patients in the control group

Implications

The findings of this study provide several implications for nursing. A frequency count of the total number of P.R.N. sedatives utilized by patients during this study period totaled 496. Those patients receiving relaxation training demonstrated a decrease in the utilization of sedatives. These data imply that nurses should be cognizant of events influencing the intake of medication. Opportunities should be provided for registered nurses to develop knowledge and expertise in the application of relaxation therapy as an alternative to the administration of sedatives.

There are further implications for those interested in quality patient care. Activity programs for those patients with chronic obstructive lung disease might very well include a daily exercise program for increasing relaxation, thereby increasing the physical stamina and the vital capacities of the patients.

The results of this study imply that educational programs should be developed for teaching patients alternative methods for coping with anxiety.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. A more sensitive tool for the measurement of manifest levels of anxiety should be developed and administered with the Taylor Manifest Anxiety Scale. Perhaps a subjective self-rating scale could be devised for measurement of the patient's perceptions of the relaxed state
2. Instruments for more precise recording of physiological variables should be utilized in monitoring the vital signs. For example, an E.K.G. monitor for heart rate
3. Duplication of this study, utilizing a population of patients with more diverse medical illnesses
4. Nursing education should explore possibilities of providing learning experiences for graduate students of nursing in the techniques of relaxation therapy
5. More research in the application of relaxation should be explored using the state-trait anxiety scales

6. Further research to explore the effectiveness of relaxation training to other identified populations in general hospitals is recommended

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APPENDIX A

PERMISSION FOR THE STUDY

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING
DENTON, TEXAS

DALLAS CENTER
1810 Inwood Road
Dallas, Texas 75235

HOUSTON CENTER
1130 M.D. Anderson Blvd.
Houston, Texas 77025

AGENCY PERMISSION FOR CONDUCTING STUDY*

THE _____ (INSTITUTION)

GRANTS TO Mildred Ann Malone Brown

a student enrolled in a program of nursing leading to a Master's Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem:

Statement of the problem is: What relationship, if any, exists between relaxation therapy as a nursing intervention and patients utilization of hypnotics and sedatives?

The conditions mutually agreed upon are as follows:

1. The agency () (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency () (may not) be identified in the final report.
3. The agency (wants) () a conference with the student when the report is completed.
4. The agency is (willing) () to allow the completed report to be circulated through interlibrary loan.
5. Other: None.

Date 2/8/77

(Signature on file)

Signature of Agency Personnel

Mildred A. Malone Brown
Signature of student

Acting Director
Mona M. Counts
Signature of Faculty Advisor

*Fill out and sign three copies to be distributed as follows: Original -- Student; first copy -- agency; second copy -- T.W.U. College of Nursing.

TEXAS WOMAN'S UNIVERSITY
DALLAS, TEXAS 75235



COLLEGE OF NURSING

March 10, 1977

Ms. Mildred Ann Malone Brown
9017 Mahan Drive
Benbrook, Texas 76116

Dear Ms. Brown:

The Dallas Center Sub-Committee for Human Research has approved your proposal for "An Analysis of Relaxation Therapy as a Nursing Intervention." Following acquisition of agency approval you may now proceed with your data collection as planned.

Sincerely,

A handwritten signature in cursive script that reads "Geri Goosen".

Geri Goosen, R.N., M.S.
Chairman of Human Research Committee
Dallas Center

cc: Dr. Phyllis Bridges
Graduate Dean

GG:js

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TEXAS WOMAN'S UNIVERSITY
1130 M. D. ANDERSON BLVD.
HOUSTON, TEXAS 77025

SHORT CONSENT FORM FOR RESEARCH STUDY

I, _____, hereby give my consent to participate in research study on _____, the general plan of which has been explained to me including anticipated benefits, risks, and potential complications.

I fully understand as it has been explained to me that by notice given to the undersigned principal investigator that I may withdraw from this research project anytime that I may elect to do so.

Patient's Signature

I hereby certify that I have given to the above individual an explanation of the contemplated study and its risks and potential complications.

(Principal Investigator)

I, _____, certify that I was present at the time the above explanation was given in English (or in Spanish)/and in my opinion the subject understood the factors involved. I also witnessed the signatures of both parties above.

Date _____

WITNESS _____

1. An experimental study will be done to analyze the use of Relaxation Therapy as a nursing intervention. Participants in the study will consist of twenty veterans between the ages of 35 - 65 years. These clients will be obtained from the inpatient population of a chronic medical unit of the Veterans Administration Hospital located in Marlin, Texas.
2. There are no anticipated risks to these selected clients. However, should an adverse emotional response occur, the data collection process will be discontinued. At the end of the study period, clients will be provided with an opportunity to ask questions of the Graduate Student to clear up any matters of concern to the client. In the event that an adverse emotional response should occur, the client will be referred to a practicing psychologist.
3. The participants will remain anonymous and will be free to withdraw from the study at any time. The Relaxation Therapy will be conducted in a private area without interruption from others. Anonymity will be maintained by coding collection forms to allow for matching data. Names will not be associated with the data collection or any part of the written results.
4. The method for obtaining informed consent from the subjects will be via the oral consent form (VA FL 10-5h) provided by the Veterans Administration. See the attached form.
5. The participants will be fully informed of all aspects of the Taylor Manifest Anxiety Scale as well as the subsets of the MMPI as a pre and post measurement of levels of anxiety. Prior to entry into the research study, a discussion period will be provided for each client to express his feelings and answer any questions posed.

(Signed) _____ Date _____
 Program Director

(Signed) _____ Date _____
 Graduate Student

(Signed) _____ Date _____
 Dean, Department Head, or Director

Date received by committee chairman: _____

APPENDIX B - TAYLOR MANIFEST ANXIETY SCALE*

Read each statement and decide whether it is true as applied to you or false as applied to you. If a statement is true or mostly true, as applied to you, draw a circle around "T." If a statement is false or not usually true, as applied to you, draw a circle around "F."

- | | | |
|---|---|---|
| 1. I am often sick to my stomach. | T | F |
| 2. I am about as nervous as other people | T | F |
| 3. I work under a great deal of strain | T | F |
| 4. I blush as often as others | T | F |
| 5. I have diarrhea ("the runs") once a month or
more | T | F |
| 6. I worry quite a bit over possible troubles . . | T | F |
| 7. When embarrassed, I often break out in a
sweat which is very annoying | T | F |
| 8. I do not often notice my heart pounding, and
I am seldom short of breath | T | F |
| 9. Often my bowels don't move for several days
at a time | T | F |
| 10. At time, I lose sleep over worry | T | F |
| 11. My sleep is restless and disturbed | T | F |
| 12. I often dream about things I don't like to
tell other people | T | F |
| 13. My feelings are hurt easier than most people . | T | F |
| 14. I often find myself worrying about something . | T | F |
| 15. I wish I could be as happy as others | T | F |
| 16. I feel anxious about something or someone
almost all of the time | T | F |
| 17. At times I am so restless that I cannot sit
in a chair for very long | T | F |
| 18. I have often felt that I faced so many
difficulties I could not overcome them . | T | F |
| 19. At times I have been worried beyond reason
about something that really did not
matter | T | F |
| 20. I do not have as many fears as my friends . . | T | F |
| 21. I am more self-conscious than most people . . | T | F |
| 22. I am the kind of person who takes things hard. | T | F |
| 23. I am a very nervous person | T | F |
| 24. Life is often a strain for me | T | F |
| 25. I am not at all confident of myself | T | F |
| 26. At times I feel that I am going to crack up. . | T | F |
| 27. I don't like to face a difficulty or make
an important decision | T | F |
| 28. I am very confident of myself | T | F |

APPENDIX B - TAYLOR MANIFEST ANXIETY SCALE

*Revised form as presented by Taylor, Janet A. The
Journal of Abnormal and Social Psychology, 48(2):
288. "A Personality Scale of Manifest Anxiety."

A METHOD OF SIMPLE RELAXATION ADAPTED FROM
FRENCH AND TUPIN 1974

The patient sits comfortably in an ordinary chair with both feet on the floor and hands in his lap.

He is then instructed:

1st Phase (30 minutes) - Close your eyes. Now, let your breathing be slow and relaxed. (The patient is observed for a few respirations. The respirations should immediately become rhythmic and noticeably slowed.) That's good, just let your breathing be comfortably slow and relaxed. Now, relax all the muscles in your neck. Just let all the muscles in your neck be very soft and relaxed . . . very soft. . . and very relaxed. Now, let all the muscles in your shoulders be very soft. . . and very relaxed. Continue to breathe very slowly. . . very relaxed. Now, let the muscles in your arms be very soft and relaxed. . . very soft. . . and very relaxed. Now, let the muscles in your back become very soft and relaxed . . . very soft. . . and very relaxed. Now, let the muscles in your legs be very soft and relaxed. . . very soft. . . and very relaxed.

2nd Phase (15 minutes) - The patient is instructed:

Now, just let your mind drift. Very gently and very naturally, in the direction of a memory which is very restful,

APPENDIX C

very reassuring, and very relaxing. Just let your mind be as relaxed as all the muscles are, and let your mind drift freely in the direction of a memory which is very relaxing, restful, and reassuring. When you find such a memory, "just wiggle a finger to let me know."

3rd Phase (15 minutes) - The objective is to facilitate an effortless focusing of attention on the memory.

The patient is instructed:

Now, present that memory very gently to your mind and simply allow yourself to experience it. When your thoughts begin to drift off, simply bring yourself back, very gently, by presenting the memory to your mind again, and allowing yourself to experience it.

At this point, successful induction is apparent if the patient is relaxed and demonstrates lateral scanning of the eyes and flickering of the eyelids. Achievement of this desired state will ensure a relaxed state for at least a full minute.

APPENDIX D - DEMOGRAPHIC DATA

Code No. _____

1. Age _____

2. Sex: Male _____

Female _____

3. Ethnic Background:

Caucasian _____

Black _____

Mexican/American _____

Other (specify) _____

4. Where do you live? Town only _____

5. Religion (Specify by church name) _____

6. Marital status: Married _____

Single _____

Divorced _____

Widowed _____

Separated _____

7. Number of time previously hospitalized? _____

8. Number of times in this hospital _____

9. Date today _____

APPENDIX E - DATA COLLECTION TOOL

Code No. _____

Type of Hypnotic _____

Number of hypnotics utilized for 21 days _____

Type of Sedative _____

Number of sedatives utilized for 21 days _____

Sleeping unit:

Private _____

Semi private _____

4-bed _____

18-bed _____

Visitors _____ Specify number of visits _____

Pass from hospital during study: yes _____ no _____

Vital signs Pre:	Systolic B/P	_____
(x 6 days + 6 = mean	Diastolic B/P	_____
of each)	Radial Pulse	_____
	Apical H/R	_____
	Respirations	_____

Vital Signs Post:	Systolic B/P	_____
(x 21 days + 21 =	Diastolic B/P	_____
mean of each)	Radial pulse	_____
	Apical H/R	_____
	Respiration	_____

APPENDIX F - CLIENT INSTRUCTIONS

1. P.R.N. sedatives and hypnotics - your doctor has written orders on your chart, that you can have medicine for sleep or nervousness whenever you need it. You will have to ask the nurse on the ward whenever you feel that you need these kinds of medicine.