

CRISIS INTERVENTION WITH WIVES OF
MYOCARDIAL INFARCTION PATIENTS

A THESIS
SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF SCIENCE
IN THE GRADUATE SCHOOL OF THE
TEXAS WOMAN'S UNIVERSITY

COLLEGE OF NURSING

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DENTON, TEXAS

MAY 1982

ACKNOWLEDGEMENTS

Without the patience and support of Diane Sadler this report might never have been completed and most certainly would have taken longer. Her love and acceptance provided me with motivation to persevere.

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CHAPTER 1

INTRODUCTION

Myocardial infarction has been one of the most frequently observed conditions in hospitals for many years. Because a myocardial infarction is a severe and life-threatening trauma to the person, many drastic changes occur in the lives of the victims and their families. Great quantities of research have been done into all aspects of myocardial infarction from the points of view of prevention, treatment, and rehabilitation. The majority of this research concentrates on the patient; little emphasis has been placed on the effects of the myocardial infarction on the patients' families.

A large percentage of patients who experience a myocardial infarction are males older than 35 years. A great many of these males are married when they experience their heart attack. Their wives, traditionally, have had to wait in fear and suspense in waiting rooms or later at the bedside with little information or support. The emphasis of the care delivery system is on saving the patient's life; however, the patient's wife and family are an important part of the patient's life and will affect his recovery.

The time spent by families in waiting rooms and later at bedsides is frequently filled with feelings of fear, doubt, guilt, sorrow, and anger. Historically, few hospitals provide any planned support system for patients' families; so these families must cope as best they can. The wives and families of the myocardial infarction patient have great influence in the patient's treatment and rehabilitation. More information needs to be obtained and greater emphasis needs to be placed on the support and guidance of the families during both the secondary and tertiary phases of intervention.

Problem of Study

When pretreatment levels of state and trait anxiety are controlled, is there a significant difference in the posttreatment level of state anxiety among wives of men hospitalized with the signs and symptoms of a myocardial infarction, who experience individual crisis intervention therapy compared to wives not experiencing individual crisis intervention therapy.

Justification of Problem

Myocardial infarction is a severe and life-threatening trauma to the patient. Many drastic changes occur in the lives of victims and their families. Great

quantities of research have focused on the care of the patient; little emphasis has been placed on the effects of the myocardial infarction on the patients' families.

A large percentage of patients who experience a myocardial infarction are married when they experience their heart attack. Their wives must wait for long periods of time with only sketchy information about their husbands' condition. There is almost total concentration on the patient; however, the patient's wife and family will play an essential role in the outcome of his rehabilitation.

The American Heart Association rehabilitation goals emphasize the great importance of interaction among a family system (American Heart Association, 1981). Wynn (1967) identified the importance of the whole family unit to the patient's wellness.

There seems to be an urgent need to look upon illness not merely as an affliction of the patient, but as a disturbance of the whole family unit. . . . Whereas many men recover from a heart attack, many wives do not.
(Wynn, 1967, p. 850)

The men return to a house in chaos because the wives' needs had not been properly met. The result is that the wives feel confused and guilty, treating their husbands with fear and overprotectiveness. This blocks

the desired goal of encouraging the patient to care for himself and lead an independent life.

Wishne, Hackett, and Cassem (1971) noted that of 18 families studied, all demonstrated such great anxiety about the rehabilitation process that these families shielded the patients from information and physical exercise, inhibiting the patients' recuperation. These authors reported that these wives overprotected their husbands due to feelings of guilt that they somehow were the cause of the heart attack. These feelings were experienced alongside feelings of anger and frustration because to express their feelings might set off another attack. Thus, these wives treated their husbands with overly solicitous behavior that displayed characteristics similar to punishment.

In a long-term study conducted by Mayou, Foster, and Williamson (1978), many of the 85 wives of men suffering from their first myocardial infarction reported moderate to severe psychological effects. Thirty-eight percent reported stressful levels of anxiety with crying spells, sleep and appetite disturbances, and a tendency to feel numb, unreal, and wanting to cling to others. The investigators concluded that there were two main needs exhibited by these women: practical

support and advice while their husbands were hospitalized, and help for the whole family throughout the rehabilitation.

Individual intervention has the advantage of dealing specifically with the person's unique situation. Crisis intervention is an established form of short psychotherapy that has been very effective in helping people deal with such devastating situations as suicidal intent, divorce, school pressure, and a wide range of other stressful problems. Crisis intervention has originated in the work of Lindemann (1956) in his efforts to deal with the community-wide effects of the Coconut Grove nightclub fire. His work was amplified by Caplan (1961), who developed a system of assessment of the individual that would allow the therapist to direct his efforts to shoring up the areas of the total personality bent or broken by stressful situations. Since these pioneering studies, the field of crisis intervention has grown into a discipline of its own.

In practicing crisis intervention, the therapist looks for the causes of disequilibrium and the actions necessary to regain the level of functioning exhibited prior to the crisis. The intervention process consists

of (a) assessment of the nature of the problem and the strengths and weaknesses of the client, (b) planning and intervention based on the client's past coping behavior that can be reinforced, and (c) intervention designed to get the client to cognitively understand the situation.

Conceptual Framework

Using the Neuman Health-Care Systems Model (Neuman, 1974) the anxiety reaction can be conceptualized. Any stressor impinging on a person interacts with flexible and normal lines of defense that react in ways peculiar to that person. In the case of a stressor that is perceived as a severe threat, an individual with high trait anxiety will experience penetration of the lines of defense more quickly and elicit a higher intensity of response at the level of the lines of resistance (a high state anxiety reaction). The same stressor, perceived as having the same degree of danger to a person with low trait anxiety will either not penetrate the normal defenses or will elicit a lesser intensity of reaction.

The difference between the two extremes of reaction to a stressor depends on the perception of the stressor as dangerous and the learned response pattern of the

individual as exemplified by the flexible and normal lines of defense. Thus, the trait anxiety level corresponds to the effectiveness of the flexible and normal lines of defense in dealing with a particular stressor. Once penetration has occurred, the degree of state anxiety observed would correspond to the intensity and nature of the resistance brought to bear by the stressor. The high trait anxiety person resists harder and sooner than does the low trait anxiety person. When a person is observed to be experiencing high levels of state anxiety, knowing the degree of that person's trait anxiety is helpful in determining the relative force of the stressor as compared to the average population (Neuman, 1974; Spielberger, 1966).

The Health-Care Systems Model (Neuman, 1974) and the therapeutic goals of crisis intervention therapy are quite compatible. The types of stressors that are created by the occurrence of a myocardial infarction (especially among family members) fit the definition of a crisis. The purpose of intervention at the secondary level of prevention is to stop stressor penetration with the least damage to the system. Tertiary prevention is designed to reestablish lines of defense (Aguilera & Messick, 1978; Neuman, 1974).

Crisis intervention therapy, as described by Aguilera and Messick (1978), is designed to meet the goal of minimizing the effect of stressor penetration.

The minimum therapeutic goal of crisis intervention is psychological resolution of the individual's immediate crisis and restoration to at least the level of functioning that existed before the crisis period. (Aguilera & Messick, 1978, p. 21)

Crises are stressors of short duration and are self-limiting. The usual course of a crisis runs up to 6 weeks, and the individual makes some kind of resolution in that time whether receiving therapy or not. The difficulty is that many people reestablish their defenses at a lower level of functioning. Crisis intervention is designed to help reestablish at least the previous level of functioning (Aguilera & Messick, 1978).

The occurrence of a myocardial infarction has the characteristics of a crisis in that it is a stressor of such magnitude and severity as to be out of the individual's abilities to cope effectively using his normal problem-solving methods. The essence of a crisis is the inability of that individual to deal with the stress effectively, and thus it is a highly subjective experience. Some stressors are of such nature that they can be considered crises for the majority of the

population. Myocardial infarction is such a stressor (Hoff, 1978).

Assumptions

The assumptions of this study were:

1. Having a member of one's nuclear family hospitalized due to a myocardial infarction is a severe stressor.

2. Persons who have experienced a myocardial infarction will be cared for in an intensive care unit or a cardiac care unit for several days after admission.

3. Reduction of the level of anxiety experienced by a spouse is beneficial to the condition of the patient.

4. Wives of men who are hospitalized for treatment of a myocardial infarction are in crisis.

Hypotheses

The hypotheses of this study were:

1. With the pretreatment level of trait anxiety controlled, there is a significant difference in the posttreatment level of state anxiety among wives of men who have been hospitalized with the signs and symptoms of a myocardial infarction who experience individual crisis intervention therapy as compared to wives who do not experience crisis intervention therapy.

2. With the pretreatment level of state anxiety controlled, there is a significant difference in the posttreatment level of state anxiety among wives of men who have been hospitalized with the signs and symptoms of a myocardial infarction who experience individual crisis intervention therapy as compared to wives who do not experience crisis intervention therapy.

Definition of Terms

For this study, the following terms were used according to these definitions.

1. Trait anxiety--the score received on the trait anxiety scale of the State-Trait Anxiety Inventory.
2. State anxiety--the score received on the state anxiety scale of the State-Trait Anxiety Inventory.
3. Signs and symptoms of a myocardial infarction--the assessment of the admitting physician indicating that the patient may be experiencing a myocardial infarction requiring hospitalization to diagnose definitively.
4. Crisis intervention therapy--the type of therapy provided in this research (see Appendix A).

Limitations

Variables which were beyond the scope of this study and could not be controlled were:

1. Severity of the patient's cardiac condition.
2. Course of the patients' treatment or its duration.
3. Quality of the interpersonal relationship between patients and wives.
4. Presence of a patient history of previous episodes of distress usually associated with cardiovascular disease.
5. Degree of knowledge by the wives of the pathophysiology and treatment of myocardial infarction.
6. Degree of emotional support available from family, friends, and other sources.
7. Effectiveness of the wives' usual coping behaviors.
8. Investigator is both therapist and data collector; thus some bias may be incurred.
9. Use of antianxiety medication by the wives.

Summary

This study explored the effect of crisis intervention therapy on the anxiety level of wives of men who were experiencing a myocardial infarction. Previous

research indicated that wives do react to the stress of their husbands' myocardial infarction with anxiety and that crisis intervention therapy is a potent technique for dealing with short-term, intense stressors.

CHAPTER 2

REVIEW OF LITERATURE

In reviewing the literature on the subject of the emotional reaction of wives to the myocardial infarction of their husbands, little research has been reported. What research that has been conducted has been published only in the last few years. This chapter covers the research reported on the reaction of wives, reports of group therapy techniques used with myocardial infarction patients' wives, a review of the emotion of anxiety as it was conceptualized for this study, and the theory and technique of crisis intervention therapy.

The American Heart Association (1981) provides a good source of information on the impact myocardial infarction has on the population of the United States. This organization stated that diseases of the heart and blood vessels were the leading cause of death in the United States in 1978 (985,800) with more than double the number of deaths due to the second leading cause, cancer (396,060). Myocardial infarction alone is the cause of 65% of the cardiovascular deaths (641,000). The American Heart Association further reported that an estimated 4,330,000 persons in the United States have a history

of myocardial infarction and/or angina pectoris. In 1981, 1,500,000 Americans will experience a myocardial infarction, and 650,000 will die as a result.

With so many persons affected by myocardial infarction each year, the rehabilitation of the survivors becomes of critical importance to the prevention of further cardiovascular events. Rehabilitation must include the families of the victim for it to be effective. The American Heart Association (1981) has established the goals of a successful rehabilitation program as

1. Return to gainful employment, independent living, or self care.
2. Reducing or minimizing patient and family economic burden resulting from heart attack by working toward a short hospital stay and maximum speedy recovery.
3. Reducing the risk of another heart attack through re-education and implementation of a secondary prevention program.
4. Improvement of the quality of life for the surviving heart attack victim. (p. 20)

Wives and Myocardial Infarction

The earliest report to include the wife and family in considering the rehabilitation needs of a myocardial infarction victim was a study by Wynn (1967). This study was designed to prevent and treat invalidism in heart disease patients. Wynn isolated factors that tended to decrease function. He found that 50% of the

400 patients studied had significant invalidism. One of the signs of invalidism was depression to the extent that the patient became very dependent, egocentric, and a burden to their families. Wynn summarized the importance of the family in the patient's progress:

There seems an urgent need to look upon illness not merely as an affliction of the patient, but as a disturbance of the whole family unit, whose suffering, indeed, may be as serious as, and more prolonged than that of the patient himself. It has been truly said that "whereas many men recover from a heart attack, many wives do not." Emotional distress in wives following such a serious and often sudden illness in their husbands may be extreme, and impair their ability to care for their families. (p. 850)

Wynn (1967) did not document this subjective finding but attributed it to inadequate moral support, guidance, reassurance, and explanation. Wynn also attributed the wives' distress to confusion due to folklore and poorly understood reading. "As a consequence, many wives were unduly fearful and overprotective" (p. 850).

In a study of 24 families of heart attack victims, Wishne et al. (1971) noted that all 24 families demonstrated anxiety about the rehabilitation process, some to the extent of being disproportionate to the patient's actual condition. These families protected the patients from adverse information and discouraged

physical exercise, incurring resentment and humiliation from the patient.

The wives in particular tended to overprotect their husbands in an aggressive way. They felt guilty at having been somehow instrumental in the genesis of the heart attack and were frustrated at being unable to express grievances and anger lest such action bring on another myocardial infarction. (Wishne et al., 1971, p. 1294)

These wives were using their outwardly solicitous attitude as a mask for expressing suppressed anger.

In a study of 65 wives of men who had experienced a myocardial infarction, Skelton and Dominian (1973) found that the psychological impact was fairly uniform among the wives. These authors reported the same tendency toward overprotection and guilt as reported by Wynn (1967) and Wishne et al. (1971). These wives reported feelings of loss, depression, and guilt during the time their husbands were in the coronary care unit.

The effect of myocardial infarction on a patient can never be considered in isolation since it is bound to have an appreciable impact on the spouse, usually the wife, who may suffer severe emotional distress. Her understanding, attitude, and ability to cope may be crucial in the rehabilitation of the patient. (Skelton & Dominian, 1973, p. 101)

The initial reaction reported by these wives was a sense of numbness and panic with a feeling of unreality. These feelings changed with time to a sense of threatened

loss with a fear of a recurrence of the myocardial infarction, death, or permanent disability. These women tended to feel guilty and blame themselves for the attack either by acts of omission or commission, or by protecting their husbands from stress in the future (Skelton & Dominian, 1973).

Skelton and Dominian (1973) found that anxiety was a frequent emotion experienced with depression. Many wives reported sleep disturbances or appetite changes. The most severe reactions occurred in the wives under 45 years of age and those with a previous history of psychiatric problems. Six of the wives reacted so strongly with anxiety as to be unable to cope with their normal lives. Sixteen wives had a severe anxiety reaction; the symptoms were apparent at the 3-month and 1-year follow-up interviews. They reported sleep disturbances and symptoms of anxiety that were a severe disruptive influence for their families.

During the period in the hospital the wives form attitudes towards the illness which influence the way they react to and treat their husbands when they return home. The nature of the sudden and severe illness is bound to create considerable distress for the wife however much support is received. (Skelton & Dominian, 1973, p. 103)

In a short-term study by Mayou, Williamson, and Foster (1976), the authors noted that relatives had little

contact with medical or nursing staff during the early stages of the hospitalization and reacted to the unfamiliar environment with anxiety and awe which hindered their getting accurate information on their relative's status.

A later, long-term study by Mayou et al. (1978) reported many of the 82 wives of men suffering their first myocardial infarction experienced major psychological effects as well as changes in their work, leisure, and social activities. The authors noted that wives play a major role in the patient's rehabilitation so their emotional status and behavior as well as the status of family life were critical determinants of the level of the patient's recuperation.

Mayou et al. (1978) described psychological reactions of the wives. Thirty-eight percent experienced moderate to severe distress with crying, sleep and appetite changes, numbness, and unreal feelings. These same women continued to experience emotional distress at the 2-month and 1-year interviews. The women experienced anxiety, depression, fatigue, irritability, poor concentration, and insomnia.

The two main needs therefore to be highlighted by this study are greater practical support and advice for the wives of men with myocardial infarction while they are in the hospital and

advice and help for the whole family throughout the convalescence. (Mayou et al., 1978, p. 701)

Stern and Pascale (1979) studied the psychosocial adaptation made by spouses of myocardial infarction patients. The authors pointed out that the family provides the social context in which the patient experiences his illness and may even define the patient's illness, the nature of the care given, and the extent of compliance with rehabilitation measures. Families are greatly disrupted by illness.

Spouses and children may be embittered by new demands placed on them and become overtly angry and withholding as a result. Fearing overt expression might injure, the spouse may be overprotective. (Stern & Pascale, 1979, p. 83)

Many wives, while being overtly supportive and protective, are denying their own needs resulting in anxiety and depression.

Stern and Pascale (1979) studied 52 wives of myocardial infarction patients. Twenty-six percent of the wives were found to be anxious at the initial interview with somatic symptoms which often mimicked those of the patient. The anxious wives were very concerned that they had been the cause of the infarction. This anxiety was alleviated by the time of the 6-month follow-up interview.

Spouses coped by regressing themselves and becoming psychologically incapacitated, by engaging in a frenzy of outside activities, or by becoming over solicitous of their husbands and controlling the situation thereby. (Stern & Pascale, 1979, p. 85)

Families with good integration and flexible roles had the best ability to cope while dependent spouses were particularly prone to problems of coping with the situation.

Previous efforts at intervention into the conflict faced by wives of myocardial infarction patients have been based on a group therapy model and deal mostly with supplying information on pathophysiology and goals for rehabilitation. Few of these groups dealt with care of the emotional needs of wives during the acute phase of the illness.

Jersilid (1967) and Holub, Eklund, and Kennan (1975) described groups led by nurses designed to educate spouses on heart anatomy and physiology, to describe risk factors for recurrence, and to allow ventilation of fears about rehabilitation. The emphasis in these groups was on increasing the knowledge base of the participants rather than dealing with coping skills or emotional reactions.

Adsett and Bruhn (1968) stated that their 7-year study led to the conclusion that close-knit family

relationships and support from significant others are most important factors in achieving a successful rehabilitation outcome. They believed that the attitudes of the physician and spouse are of special importance in influencing the patient's emotional adaptation.

Six couples were chosen from a group of 65 post-infarction patients who had had their attacks at least 1 year previously and who were having difficulty in adapting to their disability. The wives and patients met separately for 10 meetings. The groups had the goals of observing how the subjects were coping, assisting in expressing feelings and finding solutions to problems, observing for physiological changes, and identifying the level of long-term adaptation as compared to controls (Adsett & Bruhn, 1968).

The results of the study indicated that the wives were quieter, more dependent, and sought structure and assistance more than the patients. The wives were over-protective and afraid of hurting their mates resulting in great inhibition of aggressive or sexual feelings. The women reported high levels of anxiety and guilt feelings that they had contributed to their husbands' infarction and thus incurred responsibility for the prevention of future attacks. The wives talked of needing to be in

control of their husbands' behavior to lower the men's stress level even at the expense of the wives' high stress levels. "The tendency of the wives to deny their own dependency needs in favor of mothering their husbands seemed to be their way of coping with uncertainty" (Adsett & Bruhn, 1968, p. 582).

McGann (1976) conducted a psychotherapy group for wives of myocardial infarction patients which met informally on a weekly basis to discuss several areas of interest to the women. They talked about what the situation was like when the infarction occurred, what they were afraid of now, and what they expected in the future as a result of the infarction. The group leaders provided information on myocardial infarction pathophysiology, the healing process, and prevention measures. The emotional aspects of adjusting to the myocardial infarction including the danger of overprotectiveness were discussed. The wives were assured that the normal patterns of dealing with the incident included feelings of anxiety and depression. The authors' subjective evaluation of the benefits of this group were the sense that the wives were not alone in their problem, that the emotions they were feeling were appropriate,

and that there were a range of possible responses they could try to cope with the situation.

Another support group for wives of men who had experienced a myocardial infarction was led by a nurse and a minister. Harding and Morefield (1976) reported that sharing of the problems and pressures with other women could be helpful. The goals of the therapy group they led were to provide support by the sharing of similar experiences, to present factual material that was intended to reduce the anxiety of not knowing what was going on or what to expect, and to provide information on the changes in life-style necessary for prevention of future heart problems. The minister provided spiritual guidance in the question of the relationship of the myocardial infarction to life and death. The authors felt that the woman-to-woman format of the group (both group leaders were women) facilitated good group dynamics.

Harding and Morefield (1976) were able to identify recurring group issues that were dealt with in their sessions. Soon after entry into the group, each member appeared to need a time for catharsis of the pain and terror of the early stages of the myocardial infarction and the disruption it caused. The wives were very anxious and fearful of the unknowns about their husbands'

condition and what it meant for them. Many wives in this study also experienced depression as a result of the anxiety and stress that had no relief. Anger was also observed which was directed at specific personnel such as doctors and nurses but more accurately at the unfairness of the situation. The wives were helped to freely express their anger and direct it at the proper cause. This guidance prevented their turning the anger inward and creating a more severe depression. There was a sense of very severe actual and frighteningly potential loss experienced by the wives. There was grief over the loss of security and comfort of their old life-style. The sense of loss was especially acute for wives who were already coping with the recent experience of children leaving home.

Harding and Morefield (1976) encountered the additional issues of the need for better communication, the fear of death, the role work played in their husbands' lives, the uncertainty of discharge from the hospital, and the anxiety about their sexual future. These wives were eager to share their discomfort at having to pretend they were coping well when visiting their husbands and avoiding all distressful topics. The authors observed that many myocardial infarction patients and their wives

shared few communications containing expressions of feelings. A further communication problem was noted between the wife and the medical staff. Many wives were reluctant to ask questions and became very anxious when little spontaneous information was forthcoming. The group leaders presented alternative communication styles and gave encouragement for more assertive and feeling-based communication. Death was a topic that was often avoided and was on the minds of the wives. They shared concerns about their own deaths along with the potential death of their husbands. There was much resistance to the discussion of this concept in an open way.

The concept of work was found to be a topic of concern in the lives of these families. The group led by Harding and Morefield (1976) discussed how the husbands might be so closely identified with their work that they might have great difficulty adjusting to changes in their work level. The wives expressed fear that the work their husbands did might have been the stressor that caused the myocardial infarction and were afraid that a return to work might lead to another attack, this one fatal. The therapy group leaders explained that the attitude with which work is approached is a more likely cause of concern than the work itself.

These wives were also uncertain of how to handle their husbands after discharge. Many expressed a fear that they would become overly demanding in their efforts to change their husbands' life-styles. The women were concerned about the need to enforce their husbands' independence and avoid overprotectiveness.

Toth and Toth (1977), a married couple (one a social worker; the other a nurse), conducted group therapy for the patients and spouses about dealing with the after-effects of a myocardial infarction. The goals of this group were to inform the members about the etiology of heart disease and the necessity of changes in life-style. The sharing of experiences with the accompanying realization that others had experienced similar feelings increased the cohesiveness of both the couples and the group. The authors reported that they emphasized the role of the wife in rehabilitation and the necessity for improved expression of feelings in their relationship with their husbands. Since the focus of this therapy program was on the patient, the wives were dealt with as secondary persons. The authors expressed the belief that a therapy group of just wives would be beneficial in dealing with their unique problems, but this was not the purpose of their study.

Breu and Dracup (1978) identified that spouses of critically-ill patients from all causes have severe feelings of loss and grief that are enhanced by deprivation of usual social contacts and sources of support, reversal of roles and forcing into independent behavior, interruption of all normal daily routines, loss of financial stability, interruption of their interpersonal support system, and relocation to an unfamiliar place for most of each day. The authors reported on a five-step plan to deal with the grief reaction. First, the initial anxiety must be relieved by providing orientation to the hospital facilities and rules and to their husbands' condition. Second, the wives have a need for information about their husbands' day-to-day progress in simple terms, repeated as often as necessary to be understood. Third, the spouses need time to be with the patient on a flexible schedule and not feel as if they are in the way. Fourth, the women need to feel useful and helpful to the patient by being given small care tasks during visits. Fifth, the wives need to have a mechanism for support and ventilation of their feelings so that they do not have to keep up a brave front all the time.

Anxiety

Anxiety is an emotion that is experienced as being very distressful, draining, and overpowering. The person experiencing it often cannot isolate the specific source and thus feels powerless to intervene or cope. Anxiety and the physiological symptoms it creates have been most frequently described reactions experienced by wives of myocardial infarction patients.

Beck (1971) stated that the instigation of an anxiety response depends on the perception of threat of physical or psychological injury to the person or threat to the safety, health, or security of others in the person's domain. The threat can also exist toward a community the person values and with which the person feels connected; the threat can also be perceived as the potential loss of an object.

Anxiety is enhanced by (1) appraisal that the individual cannot cope with or neutralize the threatening object; (2) immediacy of the perceived danger; (3) unpredictability of when the actual damage will occur; (4) high probability attached to the occurrence of the noxious event; (5) high degree of damage expected as a result of the noxious event. (Beck, 1971, p. 497)

For the anxiety to be elicited, the key element is danger and the perceived lack of coping devices. In anxiety reactions, conceptual systems revolving around

danger are accentuated and innocuous situations are labeled as dangerous (Beck, 1971).

Groen (1975) defined the concept of anxiety in the following way:

a characteristic, unpleasant emotion, induced by the anticipation of a danger or a frustration which threatens the security, homeostasis, or life of the individual or the biosocial group to which he belongs. (p. 733)

The person perceives the environment through the subjective sensory organs and with the hereditary and acquired programming of the central nervous system. The reaction observed is as much determined by the significance attached to the event as the event itself. Anxiety is largely determined by previous experience, conditioning, and learning.

Nemiah (1975) stressed that the stimulus for the anxiety is dependent on the person's individual perception of the stressor and is based on past experience. He stated that patients experience marked lessening of anxiety when they are able to talk about their problems with a concerned person. Nemiah also concluded that patients gain reassurance about unrealistic fears and encouragement to cope.

Beck and Rush (1975) differentiated between fear and anxiety by stating that fear is an ideation whereas

anxiety is an unpleasant emotional state where the possible consequences of situations are feared. A person's fear is a future oriented concept leading to the emotion of anxiety. Ideation that is danger related is accompanied by body sensations that reinforce the ideation. The less avoidable, the more frequent, or the more unpredictable the situation, the more likely there will be a spiral of increasing anxiety.

Grinker (1966) determined from his studies during World War II that moderate levels of anxiety were facilitative of better performance but that excessive amounts of anxiety promote reduced performance and efficiency. The tendency of the stimulus for anxiety to generalize when the anxiety reaches a certain level leads the person to perceive less accurately the less stressful stimuli.

Grinker (1966) stated

anxiety is a curvilinear phenomenon in that it is associated with both differentiation and redifferentiation. Some people who are stimulated by anxiety become more proficient and efficient; those who are overwhelmed with anxiety regress and react as if they were no longer adults in that they are unable to maintain the levels of emotional stability which they had previously achieved. (p. 130)

Grinker pointed out that man attempts to deal with anxiety by blaming it on outside sources, calls it

fear, and chooses an object outside of himself to blame it on.

The concept of anxiety used in this study was that formulated by Spielberger (1966). Anxiety is a fundamental explanatory concept in theories of personality and psychopathology. Anxiety is also considered to be a principal causative agent in insomnia, psychological and psychosomatic symptoms, and even creative self-expression.

Spielberger (1966) divided anxiety into two distinctive parts: state anxiety and trait anxiety. State anxiety can be thought of as

a transitory emotional condition or feeling state that is characterized by subjective, consciously perceived feelings of tension and apprehension and heightened autonomic nervous system activity. (State anxiety) may vary in intensity and fluctuate over time. (p. 719)

Trait anxiety is conceptualized as "a relatively stable individual difference between people in the tendency to respond to situations perceived as threatening with elevations in state anxiety intensity" (Spielberger, Gorsuch, & Lushene, 1970, p. 3). Trait anxiety has the character of being a motivation that relies on past experiences that lead the person to view the world in a certain way and to show responses that are consistent (Spielberger et al., 1970).

Spielberger and colleagues (1970) shortened the definition of state anxiety by comparing to it kinetic energy and trait anxiety by comparing it to potential energy. State anxiety is a reaction occurring at a particular moment at a specific intensity. Trait anxiety demonstrates the strength of a latent tendency to respond to more varied stressors and to specific stressors with higher levels of state anxiety than persons with low trait anxiety.

Crisis Intervention Therapy

Crisis intervention is a brief form of psychotherapy that supports and strengthens the coping abilities of persons experiencing distress from acute problems. It has a wide range of applications from suicide intervention to dealing with the dissolution of important relationships. The services of most centers providing crisis intervention provide treatment on a walk-in or phone-in basis rather than by appointment. Services are focused on the presenting problem and clients are referred elsewhere for treatment of major psychopathology. The goal is to return the client to their previous level of function which had been disrupted by the crisis. The early history of crisis intervention was founded on the descriptive research of Lindemann (1956), who worked

with the survivors and relatives of victims of the Coconut Grove Nightclub fire in the 1940s and other groups during World War II. His conclusion was that grief, if suppressed, would manifest in more severe disability in the future. In 1958, Tyhurst broadened the work of Lindemann by suggesting that every person experiences grief as well as other transition states as a normal part of human development. It is the sudden, intense, and threatening elements of the event that create disruption requiring intervention. Old behavior patterns are ineffective in dealing with the stressor. Crises result in new flexibility from the individual in an effort to remove the stress; thus, they are an opportunity for formulating more effective behavior both for the present crisis and for the future (Zusman, 1975).

Okun (1976) defined crisis intervention as the use of those skills and techniques that helping professionals use when a client experiences an unexpected threat and when usual methods of coping are ineffective. Crisis intervention can range in intensity from just someone to listen to intensive therapy. The interviewer deals with the client's perceptions and beliefs about the crisis, not objective evidence. How a client responds to each crisis is dependent on past learning, experiences,

life-styles, and life philosophy. Crisis intervention as usually practiced is done by volunteers who have undergone short-term, intensive training.

Another definition of a crisis was stated by Caplan (1964) as

a short period of psychological disequilibrium in a person who confronts a hazardous circumstance that for him constitutes an important problem which he can for the time being neither escape nor solve with his customary problem solving resources. (p. 21)

Caplan (1964) stated four developmental phases found in every crisis.

1. There is an initial rise in tension as habitual problem solving techniques are tried.
2. There is a lack of success in coping as the stimulus continues and more discomfort is felt.
3. A further increase in tension acts as a powerful internal stimulus and mobilizes internal and external resources. In this stage emergency problem solving mechanisms are tried.
4. If the problem continues and can neither be solved nor avoided, tension increases and a major disorganization occurs. (pp. 40-41)

Since stressful events are part of every normal life, the characteristic that makes an event of crisis proportions is the ability of the person experiencing it to cope. To differentiate among concepts that seem similar to a crisis is important for complete understanding. Stress is pressure, tension, or strain. An emergency is

an unforeseen set of circumstances needing immediate action. However, stresses and emergencies can lead to crises depending on the coping pattern of the person experiencing them. There are some events that are part of the developmental process for everyone that have the great potential to become crises: the transition between periods of life such as between childhood and adolescence or between adolescence and adulthood. Other events of this kind are the result of unforeseen trauma that cannot be prepared for or for which the person has no reservoir of past experience. The addition of such a situational event at the time the person is experiencing a transition period can easily lead to a crisis for that person.

Hoff (1978) reported that the trigger for a crisis is a threat of or actual loss of psychosocial or other support without a chance to prepare. A crisis develops in four phases. First, the causative event results in an increase in anxiety, and the person uses his normal coping behavior in an attempt to reduce the stress. Second, the usual methods of coping are ineffective while the original stressor continues. Third, the anxiety level increases even more causing the person to use every possible resource to decrease the ever-increasing anxiety. Fourth, the stressor continues unabated; the person's

coping is ineffectual; and anxiety increases to an unbearable degree.

The onset of a crisis can result in several outcomes for the person experiencing it. The person can return to his precrisis level of function as the result of effective coping. The person can exceed his precrisis level of function by the acquisition of new resources or coping behavior. The person can retreat into psychopathological behavior patterns to reduce the stress and anxiety, such as neurosis, psychosis, drug or alcohol abuse, and suicide or homicide.

Hoff (1978) reported that crises result in high levels of anxiety. Anxiety is one of the most painful emotions a person can experience. The person has a sense of dread, a fear of loss of control, the inability to focus attention, and physical symptoms such as sweating, diarrhea, nausea and vomiting, tachycardia, headache, chest or abdominal pain, and insomnia.

Aguilera and Messick (1978) provided the intervention techniques used in this study. These authors agreed that a crisis is both a threat to the person experiencing it and an opportunity to grow through learning new, more effective behaviors. Crisis intervention is an extension of brief psychotherapy with the

immediate goal of the resolution of the presenting problem and a return to at least the level of function existing before the crisis. Realizing that crises are by nature self-limited to a duration of 4-6 weeks, the median length of therapy recommended is 4 weeks.

Crisis intervention can be practiced from both a generic and an individual prospective. The generic approach is based on the observation that there are certain easily recognizable and commonly experienced crises in people's lives. Therapy is based on the characteristic pattern of each type of crisis with the goal of adaptation that is effective for all members of the given group. The generic approach emphasizes

1. Specific situational and maturational events occurring to significant population groups.
2. Intervention oriented to crisis related to these specific events.
3. Intervention carried out by non-mental health professionals. (Aguilera & Messick, 1978, p. 23)

The individual approach emphasizes assessment of the individual problem by a mental health professional with emphasis on interpersonal and intrapsychic aspects. The goal of this process is to reach a personal solution to the particular situation from that client's unique point of view (Aguilera & Messick, 1978).

Morley, Messick, and Aguilera (1967) proposed attitudes that would facilitate the crisis intervention therapy technique. The therapy should be thought of as the preferred treatment rather than as second best. The therapist should assess the presenting problem only, while avoiding a thorough psychological diagnosis. There must be an awareness that time is limited and work must be geared to avoid tangential or unrelated material. The therapist ought to be willing to take an active, directive approach, serving as an information giver or liaison to referral sources. The goal of the therapy is to return clients to their previous level of function, at the very least and to an improved level of function, if possible. The specific steps of crisis intervention as set out by Aguilera and Messick (1978) and as used in this study, are detailed in Appendix A.

Summary

This chapter included a review of pertinent literature on the effect of myocardial infarction on the wives of the men who experience it. Authors agree that there is severe stress associated with a myocardial infarction, that wives respond to the stress with anxiety, and that this event has the elements of a crisis. Previous efforts at intervention with wives have centered

on a group therapy approach that emphasizes information giving and emotion discharging goals. No previous therapy efforts have used individual therapy or crisis intervention therapy techniques. The emotion of anxiety was frequently mentioned in discussions on the reaction of spouses to myocardial infarction. The theory of anxiety as a dual function emotion was discussed.

CHAPTER 3

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

The design, setting, population, and sample are discussed in this section. The method by which the data were collected and the procedures used to protect the human rights of subjects are also described. Additionally, information on the instrument used is discussed.

This research was a field study using a quasi-experimental, pretest, posttest, two-group design with no randomization of selection of subjects or assignment to groups. Pretreatment levels of state and trait anxiety were used as covariants. Posttreatment levels of state anxiety were used as the dependent variable. The independent variable was individual crisis intervention therapy.

Setting

The setting for the research study was a 360-bed Veteran's Administration Hospital located in a large urban area in the southwestern United States with a population of over 600,000 people. The institution treats approximately 20,000 patients annually; and of these, approximately 174 are treated annually for a diagnosis of myocardial

infarction. Patients who utilize this institution come from the middle to lower classes. Many of the patients using this facility are elderly and retired. All are veterans of service in the Armed Forces of the United States or American Indians.

Population and Sample

The population consisted of wives of men who had been admitted to a Veteran's Administration Hospital in the southwestern United States for treatment of signs and symptoms of myocardial infarction. The population consisted of members of the middle to lower classes.

The convenience sample consisted of 20 subjects. The first 20 subjects who met the criteria and agreed to participate in the study made up the study sample. Ten of the subjects were assigned to the control group and received no individual crisis intervention therapy. The remaining 10 subjects were assigned to the experimental group and received 5 hours of individual crisis intervention therapy from the researcher. The decision of which group of subjects to study first (control group or experimental group) was made by drawing a slip from a container. The slip, marked "control" was drawn and the first 10 subjects agreeing to participate in the study

were designated the control group. The second 10 subjects agreeing to participate were designated the experimental group.

Protection of Human Subjects

Prior to data collection, permission was requested and granted by the Human Subjects Review Committee of Texas Woman's University (see Appendix B). Agency permission was also obtained from the Veteran's Administration Medical Center (see Appendix C).

All wives interviewed were informed that their identity and the identity of their husbands would be known only to the researcher. They were informed that they would be identified on all score sheets by a number.

No pressure was exerted on the women to participate in the study. The general nature of the study was explained. The procedure for the study was explained, and the amount of time they would be asked to invest was also explained. They were informed that they would be free to leave the study at any time without any pressure to stay or any effect on their husbands' treatment.

The wives being considered for the control group were informed that there were no potential benefits or risks to themselves from participation in the study.

The wives who were considered for the experimental group were informed that the potential benefit of participation in the study would be that they would receive assistance in coping with the stress of their husband's illness. They were informed that a possible risk would be emotional trauma as a result of discussing their husbands' illness and their feelings about it. They were told that in the event of emotional trauma, they would be free to leave the study and they would be referred to a therapist in the Mental Health Clinic of the Veteran's Administration Hospital. The women indicated willingness to participate in the study by signing a consent form (see Appendix D).

Instruments

Two instruments were used to collect the data for this study: a demographic questionnaire and the State-Trait Anxiety Inventory (Spielberger et al., 1970). The demographic questionnaire (see Appendix E) was administered to both groups of subjects at the time of the pretest. The information on the demographic questionnaire was used to provide a more accurate description of the population. The demographic questionnaire included information on the length of marriage; number, age, and location of children; health of husband

prior to the myocardial infarction; current health of the wife; and medications being taken by the wife.

The second instrument used in the study was the State-Trait Anxiety Inventory (see Appendix E) designed by Spielberger et al. (1970). The State-Trait Anxiety Inventory consists of two 20-question, subject-administered scales. The questionnaire, which measures state anxiety, has the subjects indicate on a 4-point scale how they are currently feeling. The trait anxiety questionnaire instructs subjects to indicate on a similar 4-point scale how they generally feel. The questionnaires were scored from a key provided by the company from which the tool was purchased. The questionnaires were designed with reverse scoring. The maximum possible score was 80 points on each questionnaire; a high score meant a high level of anxiety, and a low score indicated low anxiety level.

Validity

The validity of the State-Trait Anxiety Inventory was tested in several ways. Criterion-related validity was measured for the trait scale in comparison to the IPAT Anxiety Scale by Cattell and Scheier, the Taylor Manifest Anxiety Scale, and the Zuckerman Affect Adjective Checklist. According to Spielberger et al. (1970),

correlation among these tests was moderately high and approaches the level of the individual scale reliabilities. IPAT Anxiety scale was 0.75. The correlation between the trait anxiety scale and the Taylor Manifest Anxiety Scale was 0.80. The correlation between the trait anxiety scale and the Zuckerman Affect Adjective Checklist was 0.58. Spielberger et al. (1970) concluded that the scales studied were interchangeable in measuring trait anxiety.

The state anxiety scale was tested using construct validity tests. Over 900 college students were administered the state anxiety scale with the standard instructions and again after being told to imagine they were about to take a final examination in an important course. The mean state anxiety score was higher in the examination condition for both males and females.

The state anxiety scale was further tested on 197 college students by being administered under four different examination conditions: normal, after a 10-minute relaxation training, after 10 minutes of a difficult intelligence test, and after a stressful movie. The scores were lowest after the relaxation training followed by the normal condition, the examination condition, and the movie condition. These validity tests indicate

that the two scales are valid measures of the types of anxiety they are designed to measure (Spielberger et al., 1970).

Reliability

The reliability of the State-Trait Anxiety Inventory was examined by means of checking its stability using the test-retest method on a sample of undergraduate college students. The test-retest correlations for the trait anxiety scale were high, ranging from 0.73 to 0.86. Students were tested, then retested at 1-hour, 20-day, and 104-day intervals. During the interval the students were exposed to a period of relaxation training, a difficult intelligence test, and a film containing serious accidents. As would have been expected, the state anxiety scale test-retest trials resulted in low correlations since state anxiety is a transient emotion based on situational factors. The test-retest correlates for the state anxiety scale ranged from 0.16 to 0.54.

The internal consistency of the state anxiety scale was measured as a more accurate test of its reliability. Cronbach's Alpha test of mean interitem correlation (a modification of the Kuder-Richardson method) was used. The results of this test were on a range between 0.86

to 0.92. The reliability of the tool was, thus, demonstrated to be very high (Spielberger et al., 1970).

Data Collection

Women whose husbands had been admitted to the hospital with signs and symptoms of a myocardial infarction were interviewed by the researcher. These women had the general nature of the study explained to them, including the type of questionnaires to be administered. The State-Trait Anxiety Inventory was described as a self-evaluation questionnaire. The women were told that the questionnaires would be administered on the first day of the study and then again 5 days later. They were also informed that the results would be used to improve the care of wives of other men having myocardial infarctions. They were assured of confidentiality in that they would not be identified by name in the study, and only the researcher would be aware of their identity. All subjects were assigned a number, and only this number was used to identify the subjects.

The control group was informed that the pre- and posttests would be given and that no other contact would be made with them. They were informed that the initial self-evaluation questionnaire would consist of two sets of 20 questions each. Five days later they would take a

second self-evaluation questionnaire consisting of one set of 20 questions. On one set of 20 questions, they would be asked to respond as they generally feel, measured on a 4-point scale. On the other set of 20 questions they would be asked to respond as they are currently feeling, measured on a 4-point scale. They were asked, after the explanation, to sign a permission form, if they agreed to participate in the study. The pretest was administered at this time and an appointment was made to administer the posttest in 5 days.

The treatment group was informed that the initial self-evaluation questionnaire would consist of two sets of 20 questions each. Five days later, a second self-evaluation questionnaire would be administered consisting of one set of only 20 questions. On one of the initial sets of questions, they would be asked to respond as they were feeling currently and on the other set of questions as they generally feel. Both sets of questions were rated on a 4-point scale. They were further informed that the researcher would talk with them for 1 hour each day for 5 days starting the same day they filled out the initial questionnaire. They were told that the purpose of these five 1-hour talks would be to help them to deal more effectively with their husbands' current illness.

They were told that on the sixth day of the study, they would be administered another self-evaluation questionnaire. They were asked to sign a permission form after receiving this explanation and if they agreed to participate in the study.

The individual crisis intervention therapy was conducted using the steps outlined in Appendix A. Each subject was assisted to define the exact nature of the crisis in terms that were meaningful to the subject. The subjects were then questioned to determine the strengths, weaknesses, and resources of the family system. For example, the presence of children in the local area was determined to be a resource, while a history of family disagreements or conflict was considered a weakness. A strong feeling of commitment to the spouse was considered a strength. The subjects were questioned to determine how they had coped in the past with similar situations or how people they had known had coped. The subjects were encouraged to utilize those coping behaviors that were effective and to increase contact with significant others. Because each subject's situation and family system was different, the specific interventions were planned to deal with specific problems encountered in each case.

Treatment of Data

The data were analyzed using analysis of covariance. Even though the sample size was small, the parametric analysis of covariance can be applied as there is no perfectly correlating nonparametric test.

If the sample sizes are equal, violations of the assumptions of normality and homogeneity of conditional variances are not likely to have drastic effects on parametric analysis of covariance. . . . Even though parametric analysis of covariance may yield a biased F test (and biased confidence intervals), the estimates of the adjusted means will not, in general, be biased. (Huitema, 1980, pp. 255-256)

The pretreatment level of state anxiety and the pretreatment level of trait anxiety were used as covariants. The posttreatment level of state anxiety was the dependent variable. The individual crisis intervention therapy was the independent variable. The hypotheses were to be accepted if the data were significant at the 0.05 level of significance.

CHAPTER 4

ANALYSIS OF DATA

The posttreatment level of state anxiety was analyzed to determine if there was a significant difference between wives of men who had been hospitalized for treatment of the signs and symptoms of a myocardial infarction who experienced individual crisis intervention therapy as compared to wives who did not experience crisis intervention therapy. The pretreatment state and trait anxiety levels were used as covariants. The post-treatment level of state anxiety was used as the dependent variable. The individual crisis intervention therapy was used as the independent variable.

Description of the Sample

The study sample consisted of 20 wives of men who had been admitted to the Veteran's Administration Hospital for treatment of the signs and symptoms of a myocardial infarction during a 7-month period from late January 1981 until early August 1981. The age of the sample varied widely (see Table 1). While the ages of the wives ranged from 30 to 74 years, the mean age was 54.85 years.

Table 1
Description of Sample: Age of Subjects

Age (Years)	Frequency	Percentage
30-39	1	5
40-49	6	30
50-59	7	35
60-69	5	25
70-79	<u>1</u>	<u>5</u>
Total	20	100

The ages of the husbands did not vary as greatly as the ages of the wives. The majority of the husbands were in their fifth or sixth decades (80%). The ages of the husbands ranged from 46 to 76 years, while the mean age was 58.4 years (see Table 2).

Table 2
Description of Sample: Age of Subjects' Husbands

Age (Years)	Frequency	Percentage
40-49	3	15
50-59	7	35
60-69	9	45
70-79	<u>1</u>	<u>5</u>
Total	20	100

The length of the marriage of the family units also varied widely with a range from 3 to 54 years. The mean length of marriage was 27 years. The mean length of marriage was longer for the control group than for the experimental group by 4.3 years (see Table 3).

Table 3

Description of Sample: Length of Marriage

Length of Marriage (Years)	Frequency	Percentage
1-10	5	25
11-20	1	5
21-30	3	15
31-40	7	35
41-50	3	15
51-60	<u>1</u>	<u>5</u>
Total	20	100

The mean age and standard deviation of the wives' ages were different between the control group and the experimental group. The control group had a mean age of 55.6 years and the experimental group had a mean age of 54.1 years. The standard deviation for the control group was 11.79 years and for the experimental group was 8.19 years (see Table 3).

The husbands in the control group were substantially older than the husbands in the experimental group. The mean age for the control group was 61.7 years as compared to 55.1 years for the experimental group (see Table 4).

Table 4
Description of Sample by Subjects' Age,
Spouses' Age, and Length of Marriage

	Control Group (<u>n</u> =10)	Experimental Group (<u>n</u> =10)	Total (<u>n</u> =20)
Subjects' Age (Years)			
<u>M</u>	55.60	54.10	54.85
<u>SD</u>	11.79	8.19	9.91
Spouses' Age (Years)			
<u>M</u>	61.70	55.10	58.40
<u>SD</u>	7.79	7.22	8.05
Length of Marriage (Years)			
<u>M</u>	29.20	24.90	27.05
<u>SD</u>	18.10	13.30	15.63

In attempting to determine if the control and experimental groups of the sample were statistically, comparable post hoc t tests were done on the ages of the subjects, the age of the spouse, and the length of

marriage. Intact convenience groups were used and no assignment was made to groups. The control and experimental groups were not significantly different on the basis of the age of the subjects, $t(18) = .33$, $p = .745$. The two groups were not significantly different on the basis of the age of the husbands, $t(18) = 1.97$, $p = .065$. The groups were also not significantly different on the basis of the length of the couples' marriage, $t(18) = .60$, $p = .553$. At the .05 level of significance, the groups were not significantly different; at the .10 level of significance, the groups differed by the factor of the husbands' age.

The number of children in each family was determined as a further descriptor of the sample. The number ranged from 0 to 5 children. The mode of the number of children was 2, and the mean was 2.45. The second most frequently occurring number was 3 children (see Table 5).

The location of the children was obtained as a descriptor of the sample since an element of individual crisis intervention therapy is the available support systems for the client, of which children are an important one. There were a total of 11 families with children living locally and 9 families with either no children or none living in the local community. If at

least one child lived locally, that family was considered to have children living locally (see Table 6).

Table 5

Description of Control and Experimental
Groups by Number of Children

Number of Children	Control	Experimental	Total
0	0	2	2
1	0	2	2
2	4	3	7
3	3	2	5
4	1	1	2
5	<u>2</u>	<u>0</u>	<u>2</u>
Total	10	10	20

Table 6

Description of Sample by Location of Children

Location	Control	Experimental	Total
Local	5	6	11
Distant	5	2	7
No Children	<u>0</u>	<u>2</u>	<u>2</u>
Total	10	10	20

The previous history of illness in the husband was also obtained by the demographic questionnaire. Three types of illness related by the literature to myocardial infarction were recorded as significant to this study. These illnesses were angina pectoris, diabetes mellitus, and previous history of myocardial infarction. In scoring this area for statistical evaluation, the most severe symptom occurring was scored. For the sample, seven husbands had previous myocardial infarctions or angina pectoris. Five husbands had a history of diabetes, and eight husbands had no history of cardiovascular related illness (see Table 7).

Table 7

Description of Sample by Spouses' History
of Heart Disease Related Illness

	Control	Experimental	Total
Angina pectoris	3	1	4
Myocardial infarction	1	2	3
Diabetes mellitus	3	2	5
None	<u>3</u>	<u>5</u>	<u>8</u>
Total	10	10	20

Chi-square was used to check for similarity between the groups on the factors of number of children, location of children, and history of previous heart disease. Using the χ^2 test for these factors was problematic since expected cell frequencies did not equal or exceed 5 and combining categories did not provide a satisfactory test. The approximation to the χ^2 distribution is reliable as long as no more than 20% of the expected frequencies are below 5 and none are less than 1. This provides a conservative test and is reliable with expected frequencies as low as 1.5 as long as the frequencies are of similar sizes (Gibbons, 1976). Therefore, categories were grouped to obtain frequencies as close to 5 as possible while maintaining logical combinations.

In a further attempt to determine if the control and experimental groups of the sample were statistically comparable, the approximation to test was done on several variables. The two groups were determined not to be significantly different on the basis of the number of children in the family, $\chi^2(1) = 1.818$, $p > .05$. The control group and the experimental group were not significantly different on the basis of the location of the children, $\chi^2(1) = .202$, $p > .05$. The two groups were

not significantly different on the basis of the history of heart disease related illness, $\chi^2(2) = 2,313$, $p > .05$.

The scores on the State-Trait Anxiety Inventory for both groups were very similar in all respects leading to the impression, prior to statistical analysis, that the hypotheses would have to be rejected. The experimental group had higher mean pretreatment trait anxiety scores and had a larger standard deviation than the control group (see Table 8).

Table 8
Description of Sample by Pretreatment and
Posttreatment State-Trait Anxiety
Inventory Scores

	Control	Experimental	Total
Trait			
<u>M</u>	34.30	35.30	34.80
<u>SD</u>	12.46	14.66	13.25
Pretreatment State			
<u>M</u>	57.50	53.40	55.40
<u>SD</u>	15.51	15.66	15.32
Posttreatment State			
<u>M</u>	39.50	37.70	38.60
<u>SD</u>	14.11	14.18	13.80

The control group had a much higher pretreatment mean state anxiety score, but the standard deviation in both the control and experimental groups was very similar. The mean of the posttreatment state anxiety score for the control group was higher than the experimental group, indicating that the control group was slightly more anxious at the end of the data collection period than the members of the experimental group.

Fourteen of the sample of 20 wives had pretreatment state anxiety scores over 50 points, and one subject in the control group had a pretreatment state anxiety score of 77 points. The mean pretreatment state anxiety score for the control group was 57.5; for the experimental group the pretreatment state anxiety mean was 53.4. The mean posttreatment state anxiety score for the control group was 39.5, and the mean posttreatment state anxiety score for the experimental group was 37.7. The highest posttreatment state anxiety score for the control group was 61 points, and for the experimental group was 56 points.

The experimental group, while tending to respond with greater anxiety (higher trait anxiety scores), were initially less anxious than the control group. The control group had higher state anxiety scores than the

experimental group and showed a greater decrease in their level of state anxiety over time. The experimental group had a greater tendency to react with anxiety, but initially had lower state anxiety scores than the control group. The experimental group did not reduce their state anxiety to as great a degree as the control group even with the intervention of the independent variable.

Test of Hypotheses

The first hypothesis of this study was: With the pretreatment level of trait anxiety controlled, there is a significant difference in the posttreatment level of state anxiety among wives of men who have been hospitalized with the signs and symptoms of a myocardial infarction who experience individual crisis intervention therapy as compared to wives who do not experience crisis intervention therapy. The pretreatment level of trait anxiety was the covariant. The posttreatment level of state anxiety was the dependent variable. The 5 hours of individual crisis intervention therapy received by the experimental group was the independent variable. Analysis of covariance was used to test the hypothesis (see Table 9).

Table 9

Analysis of Covariance Table of Posttreatment
State Anxiety of Control and Experimental
Groups by Pretreatment Trait Anxiety

	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	Significance of <u>F</u>
Pretreatment Trait Anxiety	2043.11	1	2043.11	22.52	.001
Main Effects:					
Group	33.40	1	33.40	0.368	.552
Explained	2076.51	2	1038.28	11.44	.001
Residual	<u>1542.29</u>	<u>17</u>	<u>90.72</u>		
Total	3618.80	19	190.46		

Based on the results of the analysis of covariance, Hypothesis 1 was not confirmed. The individual crisis intervention therapy did not account for the differences observed between the groups' scores. The covariant, pretreatment trait anxiety, was more effective in explaining the differences observed. This indicates the two groups differed significantly from each other in trait anxiety level before the treatment was initiated.

The second hypothesis of this study was: With the pretreatment level of state anxiety controlled, there is a significant difference in the posttreatment level of state anxiety among wives of men who have been

hospitalized with the signs and symptoms of a myocardial infarction, who experience individual crisis intervention therapy as compared to wives who do not experience crisis intervention therapy. The pretreatment level of state anxiety was used as the covariant. The posttreatment level of state anxiety was used as the dependent variable. The 5 hours of individual crisis intervention therapy was the independent variable. Analysis of covariance was used to test the hypothesis (see Table 10).

Table 10

Analysis of Covariance Table of Posttreatment State Anxiety of Control and Experimental Groups by Pretreatment State Anxiety

	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	Significance of <u>F</u>
Pretreatment State Anxiety	1340.24	1	1340.24	10.00	.006
Main Effects:					
Group	1.02	1	1.02	.008	.931
Explained	1341.26	2	670.63	5.00	.020
Residual	<u>2277.54</u>	<u>17</u>	<u>133.97</u>		
Total	3618.80	19	190.46		

Based on the results of the analysis of covariance, Hypothesis 2 was not confirmed. The individual crisis

intervention therapy did not account for the differences between the control and experimental groups in relation to posttreatment state anxiety. The covariant, pretreatment state anxiety, was most effective in explaining the differences observed. This indicates that the two groups differed significantly from each other in state anxiety before any treatment was initiated.

Summary of Findings

The demographic factors were analyzed to determine if the control and experimental groups were significantly different. The two groups were determined not to differ significantly according to the demographic variables. The hypotheses of the study were tested using analysis of covariance. Both hypotheses were not confirmed by the analysis of the data obtained. The covariants were most effective in explaining the differences observed between the control and experimental groups. Individual crisis intervention therapy, as provided in this study, was not effective in explaining the differences observed.

CHAPTER 5

SUMMARY OF THE STUDY

This chapter reviews the methodology of the study as it relates to the problem and hypotheses. The findings of the study are discussed and are related to previous research on the subject. Conclusions based on the research findings are made, and implications for nursing based on the conclusions are drawn. Recommendations for further research based on this study are suggested.

Summary

This study was designed to determine if there was a significant difference in the posttreatment state anxiety level when the pretreatment levels of state and trait anxiety were controlled among wives of men who have been hospitalized for treatment of the signs and symptoms of a myocardial infarction, who experience individual crisis intervention therapy as compared to wives who do not experience therapy. The wives of men who were hospitalized with the signs and symptoms of a myocardial infarction were approached by the researcher within 24 hours after their husbands' admission. Wives of men

with a diagnosed myocardial infarction or men who had been admitted to have a myocardial infarction ruled out were the subjects of the study. The purpose of the study and what would be required in their participation was explained. The control group was examined first. A total of 10 women completed the demographic questionnaire, the consent forms, and both questionnaires of the State-Trait Anxiety Inventory on the first day. Five days later these wives completed a second state scale questionnaire as a posttest. The members of the control group received no intervention or other contact from the researcher during the time interval between the two tests. No effort was made to monitor the progress of the patients.

The 10 wives in the experimental group received the same basic instructions and were administered the same demographic questionnaire, consent forms, pretest and posttest as the control group. On the day of the initial contact and then every day for the next 4 days, the subjects in the experimental group received 1 hour of individual crisis intervention therapy (a total of five 1-hour sessions). The individual crisis intervention therapy served to bring to awareness the conflicts, guilt, anxiety, and depression felt by the wives. The

therapy was designed to assess the subjects' available coping mechanisms and to assist them to find and use available support systems such as children, friends, and clergy. The therapy also pointed out new coping behaviors such as improved reality testing. The issues of the husbands' current hospitalization and the wives' coping with that stressor were explored in great detail. Side issues or long-term problems were avoided except as they pertained to the myocardial infarction diagnosis. On the sixth day, a posttest was administered. The state scale of the State-Trait Anxiety Inventory was completed on a day where there was no therapy to avoid biasing the results.

The results of the demographic questionnaire indicated that the control and experimental groups were not significantly different in the demographic variables at the .05 level of significance. The analysis of covariance test of Hypothesis 1 indicated that the individual crisis intervention therapy did not explain the differences between the control and experimental groups. Hypothesis 1 was not confirmed. Hypothesis 2 was also not confirmed after testing with the analysis of covariance. The independent variable did not explain the statistical differences observed. In

the case of each hypothesis, the covariant was effective in explaining the differences noted between the control and experimental groups. This indicates that the two groups differed significantly from each other in both state and trait anxiety before any intervention was initiated.

Discussion of the Findings

With pretreatment levels of trait anxiety controlled, there was no significant difference in the posttreatment level of state anxiety between the control and experimental groups in this sample. The level of trait anxiety statistically explained the observed group scores. The individual crisis intervention therapy did not appear to reduce the anxiety of the subjects.

With the pretreatment level of state anxiety controlled, there was no significant difference in the posttreatment state anxiety scores between the control and experimental groups in this sample. The pretreatment level of state anxiety statistically explained the differences between the groups. The individual crisis intervention therapy did not appear to reduce the anxiety of the subjects.

The raw anxiety test scores were high among the subjects of the study. The mean pretreatment state anxiety score for all subjects was 55.4 of a possible 80 points. The mean posttreatment state anxiety score for all subjects was 38.6 of a possible 80 points. These data indicated that the wives of men who are hospitalized with the signs and symptoms of a myocardial infarction do experience high levels of state anxiety within 24 hours after their husbands' admission, and this level of anxiety is reduced after 5 days of hospitalization with or without individual crisis intervention therapy.

As reported by Spielberger et al. (1970), state anxiety is a transient emotion that is not usually sustained. Persons experiencing peaks of anxiety have learned to cope with and reduce high levels of anxiety. The drop in the state anxiety level between the first and sixth days of the study could be a reflection of these coping behaviors. Considering the Neuman Health-Care Systems Model (Neuman, 1974), the unfortunate result is that although the anxiety due to stressor penetration may be reduced, the reconstructing lines of defense may be reconstituted at a lower level of function reflecting a diminished capacity to defend

the core from subsequent stressor penetrations. As the person's coping behavior acted to reduce stressor penetration, the stressor was diminishing in intensity. The husbands were either improving or their symptoms were being diagnosed as only acute angina. The wives' feelings of anxiety may be directly related to the physical condition of their husbands. If their husbands were improving, the wives would tend to feel less anxious or afraid; if the husbands' condition was worsening or remaining unstable, the reason for continued high levels of state anxiety would be present. The status of the husbands' condition was not monitored during this study. Had the husbands' condition been included as a variable, it may have accounted for the data that were observed in this study. Since the husbands' myocardial infarction was the original stressor for the wives in this study, their husbands' continued illness or worsening condition was likely to have been a major factor in the changes in state anxiety that were observed in the wives. In addition, the individual crisis intervention may have acted to augment the lines of resistance, but the effect was not measurable with the dependent variable chosen for

this study, with the statistics used, with the tool used, or with as small a sample as was used in this study.

No previous research was reported dealing with the measurement of anxiety among the subject population, although anxiety was noted frequently as an emotion experienced by women in similar circumstances. Previously reported research used no statistical evaluations or employed subjective measurements. All previous research consisted of group therapy techniques. This research cannot be compared to the literature for these reasons.

Conclusions and Implications

Based on the findings of this study, the following conclusions were made.

1. Wives of men who have been admitted to the hospital for treatment of the signs and symptoms of a myocardial infarction experience high levels of state anxiety within 24 hours after their husbands' admission.

2. The state anxiety level among the women in this study, with or without individual crisis intervention therapy, decreased by the sixth day of the study.

3. Individual crisis intervention therapy had no measurable effect on the state anxiety level of the sample.

4. Since the state anxiety level of the subjects decreased between the pre- and posttests, variables which were not being controlled for may have been exerting an effect on the observed results.

This study found that wives of men being treated for the signs and symptoms of a myocardial infarction experience high levels of anxiety. An implication for nursing practice is that intensive care area nurses must intervene to reduce that anxiety. The intervention can consist of increased input of information to the wives in clear, simple terms, repeated often. Anxiety reduces the person's ability to understand complicated information, so the nurse's information may not be heard the first time it is offered. Since the hypotheses of the study were not confirmed, no further implications can be drawn.

Recommendations for Further Study

The following recommendations for further study were made.

1. This study should be repeated using a much larger sample and in a setting other than a Veteran's Administration Hospital.
2. This study should be replicated with increased delimitation on the selection of subjects based on the spouses' experiencing a first myocardial infarction.
3. This study should be replicated measuring other variables as the dependent variable while retaining the individual crisis intervention therapy as the independent variable.
4. A long-term study should be done with over-protectiveness as the dependent variable and individual crisis intervention therapy as the independent variable using a population of wives of men experiencing their first myocardial infarction.
5. This basic study should be repeated on other populations of family members, such as those of trauma victims, burn victims, or those with exacerbations of chronic illnesses.
6. A study should be done comparing the effectiveness of individual crisis intervention therapy as compared to group therapy with anxiety as one of several dependent variables.

7. A study should be done similar to this research with the husbands' physical condition monitored and correlated with the level of state anxiety observed in their wives.

8. The crisis generated by the husband returning home should be studied by determining if nursing interventions in the time just before the patient goes home reduce the amount of overprotective behavior observed in the wives once the patient is home.

APPENDIX A

OPERATIONAL DEFINITION OF CRISIS INTERVENTION THERAPY

Individual crisis intervention can be defined as a form of brief psychotherapy that concentrates on the demands of situations for novel adaptation reactions. It emphasizes assessment of the psychosocial processes of the person in crisis. All intervention is designed to solve the unique problems that initiated the crisis at hand. The therapist looks for the causes of the disequilibrium and the actions necessary to regain the level of functioning exhibited prior to the crisis. Success of the process of crisis intervention depends on

1. Accurate assessment of the nature of the crisis for that person.
2. Awareness of the time limitations.
3. Remembering the necessity of directive therapy at times.
4. Awareness of the necessity of remaining goal directed and avoiding getting into traditional psychotherapy.

The steps of crisis intervention are

1. Assessment of the nature of the problem and the strengths, weaknesses, and resources of the client system.

2. Planning of intervention based on a knowledge of the client's past coping behavior that has been successful in similar circumstances that can be reinforced for use in this crisis.

3. Intervention designed to get the client to cognitively understand the situation, fully explore the current feelings being experienced, examine possible coping behaviors, and encourage contact with significant others.

4. Resolution and reinforcement of successful coping behavior with planning of how to use new coping skills in the future.

APPENDIX B

TEXAS WOMAN'S UNIVERSITY

Human Research Committee

Name of Investigator: Edward P. Sadler Center: Dallas
 Address: 2508 New Orleans #117 Date: July 27, 1979
Dallas, Texas 75235

Dear Mr. Sadler:

Your study entitled Crisis Intervention with Wives of Myocardial Infarction Patients has been reviewed by a committee of the Human Research Review Committee and it appears to meet our requirements in regard to protection of the individual's rights.

Please be reminded that both the University and the Department of Health, Education and Welfare regulations require that written consents must be obtained from all human subjects in your studies. These forms must be kept on file by you.

Furthermore, should your project change, another review by the Committee is required, according to DHEW regulations.

Sincerely,

Estelle D. Feitz

Chairman, Human Research
Review Committee

at Dallas

APPENDIX C

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING
DENTON, TEXAS 76204

DALLAS CENTER
1810 INWOOD ROAD
DALLAS, TEXAS 75235

AGENCY PERMISSION FOR CONDUCTING STUDY

The Veterans Administration Medical Center, Tucson, Arizona

GRANTS TO Edward F. Sadler, R.N.

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:

When pretreatment levels of state and trait anxiety are controlled, are there significant differences in the posttreatment level of state anxiety among wives of men who have been hospitalized with a myocardial infarction, who experience individual crisis intervention therapy.

The conditions mutually agreed upon are as follows:

1. The agency (may) (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. The agency is (willing) (unwilling) to allow the completed report to be circulated through interlibrary loan.
5. Other _____

Date: December 1968

Edward F. Sadler
Signature of Student

Robert M. Ziegler
Signature of Agency Personnel
Associate Chief of Staff for Research

Robert M. Ziegler
Signature of Faculty Advisor

APPENDIX D

SUBJECT CONSENT

You are being asked to voluntarily participate in a project entitled "Crisis Intervention with Wives of Myocardial Infarction Patients." The purpose of the project is to determine the feelings of wives of men who are admitted to the hospital with symptoms like those of a heart attack. The study will help to determine what nurses and others can do to help wives who are experiencing this situation. Crisis intervention is a form of short therapy that is designed to help people who are having difficulty in dealing with situations in their lives.

You are among 30 wives of men admitted to the Veteran's Administration Medical Center, Tucson, Arizona, selected randomly to participate in this study. I will take about 20 minutes now in a private area nearby to have you fill out a short questionnaire about yourself that will allow you to be placed in the appropriate categories when the research is analyzed. You will also fill out two, 20-question, self-evaluation questionnaires that will describe how you feel generally and at this moment.

You will be assigned by me to one of two groups of wives. The Measurement Group will fill out the questionnaires described above the first day of the project. Five days later, you will fill out one more self-evaluation questionnaire. The wives in the Discussion Group will also fill out the questionnaires described above. You will spend an hour each day for 5 days, in private, starting the same day you fill out the questionnaires, talking to me about your feelings in the situation. Then, on the sixth day, you will fill out another self-evaluation questionnaire.

I will not record your name on any forms. All forms will be identified only by a number assigned by me, and I will be the only person to know your identity. All information shared with me during our discussions will remain confidential. The information from this study is intended as part of my Master's Degree thesis and may be published in the future.

There are no costs to you. There are no risks or benefits to the wives in the Measurement Group. Members

of the Discussion Group may benefit from having someone to talk with during the situation of their husbands' illness. There is some slight risk that talking with me may make you aware of unpleasant feelings. Benefits will also come to patients in the future in the form of better nursing care to people in similar situations.

There is no medical treatment or compensation for physical injuries incurred as a result of participation in this project. If you should have a strong unpleasant reaction from the study, professional staff of the Mental Hygiene Clinic are prepared to assist you. You are free to withdraw from the project at any time without it affecting you or your husband's care.

You are free and encouraged to ask questions at any time during your participation in the project.

SUBJECT'S CONSENT

I have read the above statements. The nature, demands, and benefits of the study have been explained to me. I understand that I may ask questions and that I am free to withdraw from the project at any time without effecting the health care of my husband. I understand that this consent form will be filed in an area designated by the Human Subject's Committee with access restricted to the Principal Investigator or authorized representatives of the Veteran's Administration Medical Center. A copy of this form is available to me upon request.

Subject's Signature

Date

Witness's Signature

Date

Investigator's Signature

Date

APPENDIX E

INFORMATION SHEET

Subject Number _____ Subject Group _____

Age of Subject _____ Spouse's Age _____

Date of Marriage _____

Number of Children _____

_____ Ages of Children

_____ Location of Children

What was your husband's health like before this attack?

What is your health like now?

What medications are you taking?

APPENDIX F

STATE-TRAIT ANXIETY INVENTORY

The State-Trait Anxiety Inventory is copyrighted and is available from Consulting Psychologists Press, 577 College Avenue, Palo Alto, California 94306.

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