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## Role Clarification and the Myocardial Infarction Patient's Primary Support Person

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ROLE CLARIFICATION AND THE MYOCARDIAL INFARCTION  
PATIENT'S PRIMARY SUPPORT PERSON

By

Susan L. Dunn

A Thesis

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## ABSTRACT

### ROLE CLARIFICATION AND THE MYOCARDIAL INFARCTION

#### PATIENT'S PRIMARY SUPPORT PERSON

By

Susan L. Dunn

The purpose of this study was to evaluate the effectiveness of role clarification in reducing anxiety of the myocardial infarction patient's primary support person (PSP). A quasi-experimental design was utilized. A nonprobability convenience sampling method produced a sample of 31 experimental and 38 comparison subjects. During the patient's hospitalization a pretest was given and the experimental group attended a role clarification session. Posttesting was done three weeks later. Both groups had higher trait and state anxiety levels than the norm at pretest and posttest. It was hypothesized that the experimental group would have lower posttest state anxiety levels. This was not supported. Additionally, there was no significant difference between pretest and posttest state anxiety scores in either group. Role clarity and support role performance were found to be significantly positively related in both groups. The results support the need for psychosocial assessment of the PSP and appropriate psychosocial interventions.

## Dedication

This project is dedicated to my husband, Randy and our children, Matthew, Kristen and Kara. Their love, encouragement and support throughout my educational endeavors have been essential and greatly appreciated.

## Acknowledgments

I would like to extend sincere appreciation to my thesis committee members for their willing assistance. I am most grateful to Dr. Mary Horan as my committee chairperson. Her encouragement, guidance and keen editorial skills were greatly appreciated.

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## Chapter 1

### INTRODUCTION

Coronary heart disease is the leading cause of death in the United States, with 489,970 deaths in 1993. Although it is anticipated that 1,500,000 Americans will have a myocardial infarction in 1996, the death rate from myocardial infarction has been declining. The death rate declined 29.7 percent from 1983 to 1993 (American Heart Association, 1996). As more people survive myocardial infarctions, attention is increasingly focused on the quality of the recovering patient's life. Cardiac rehabilitation exists to assist the myocardial infarction patient and his or her primary support person (PSP) in regaining an optimal level of physical, emotional, and social health.

Cardiac rehabilitation typically begins in the inpatient setting. Inpatient cardiac rehabilitation often includes activity progression, education, and emotional support. Traditionally, inpatient cardiac rehabilitation has been directed toward the patient's recovery. However, the importance of the patient's PSP, and her/his emotional recovery, cannot be overlooked. For the majority, it is the PSP who will be assisting and encouraging the patient during the recovery process.

The hospitalization and recovery of a patient who has experienced an acute myocardial infarction is characterized by emotional distress. Skelton and Dominion (1973) identified, as early as 1973, that the effect a myocardial infarction has on a patient can never be considered in isolation. They reported that the spouse experiences considerable emotional distress, with the period of convalescence after the patient's discharge identified as being particularly stressful.

A number of studies have continued to describe the spouse's anxiety after a myocardial infarction and/or coronary artery bypass surgery. Bedsworth and Molen (1982) identified anxiety as the most frequently reported response of spouses during the period immediately following the myocardial infarction patient's admission to a coronary care unit. Hentinen (1983) identified signs of stress in the wives of myocardial infarction patients eight weeks after discharge. Anxiety and psychosomatic symptoms have been reported as common and persistent in patients' spouses during hospitalization and for up to one year after a cardiac event (Artinian, 1992; Artinian & Duggan, 1993; Gilliss, 1984; Mayo, Foster & Williamson, 1978; Stanley & Frantz, 1988; Stern & Pascale, 1979).

During the patient's hospitalization the PSP is faced with the anticipation of role changes that are likely to occur. It is assumed that every PSP desires to perform in a supportive role.

However, the PSP frequently suffers from a lack of knowledge regarding his/her role after a myocardial infarction. Miller and Wikoff (1989) examined spouses of myocardial infarction patients three months after discharge. Results showed that only 37% of the spouses had received information regarding spouses' roles and responsibilities.

In a number of studies the spouses' roles were found to change dramatically after a cardiac event. Artinian (1992) examined spouses' role strain after their partners' coronary artery bypass surgeries at 48 hours, six weeks and one year. Results showed the presence of role strain at 48 hours and six weeks, with a dramatic increase in role strain at one year.

Insufficient knowledge of role behavior (ie. poor role clarity) can lead to role insufficiency, defined as any difficulty with support role performance (Meleis, 1975). Anxiety is one potential response to role insufficiency (Meleis, 1975). Feelings of anxiety, frustration, guilt, anger and depression have been reported in a number of studies (Artinian, 1992; Bramwell & Whall, 1986; Mayou, et al., 1978; Miller & Wikoff, 1989).

Assisting an individual in anxiety reduction is an important nursing intervention. The nurse can assist the myocardial infarction patient's PSP with anxiety reduction by intervening with role clarification and thus assisting with his/her support role performance. The support role performance of the myocardial

infarction patient's spouse has been found to have a direct negative effect on anxiety (Bramwell & Whall, 1986).

Role clarification, as a nursing intervention, can be preventive and/or therapeutic. Meleis (1975) suggests that the earlier preventive role clarification is offered, the lower the probability of role insufficiency. Thus, the myocardial infarction patient's hospitalization is an opportune time for role clarification. The PSP can begin to synthesize and incorporate role behavior prior to the patient's discharge home.

Intentional role instruction is one strategy for role clarification (Meleis, 1975). Role instruction offers an opportunity for PSPs to learn expected behaviors in the support role. As PSPs are typically present during the patient's hospitalization, time is available to discuss anticipated role changes and potential accompanying anxiety in a role clarification session.

Role modeling is a second strategy for role clarification (Meleis, 1975). When a PSP is observed enacting a certain role so that another PSP is able to understand and act out the behaviors in that role, role modeling occurs (Meleis, 1975). In our highly mobile society, with increasingly less face-to-face contact with extended families, most PSPs have not observed role models in such a support role. A role clarification session would provide an opportunity for intentional role modeling.

The efficacy of video in patient/family education has been well documented (Gagliano, 1988). However, very few studies have been done specifically examining the effect of video with cardiac patients' PSPs. Gates (1990) developed and used a preoperative exposure video examining it's effect on the anxiety level of open heart patients' spouses. This experimental study found mean posttest anxiety levels lower in the experimental group, but not at a statistically significant level.

The strength of video as a role modeling tool has also been demonstrated in a number of studies (Gagliano, 1988). Uzark, Rosenthal, Behrendt, and Beckett (1985) demonstrated that role modeling through video potentiated role understanding and improved emotional responses, including anxiety, in parents of babies with congenital heart defects. The use of a role modeling video, as a component of a role clarification session, could thus enhance role clarity for the myocardial patient's PSP.

#### Purpose

The purpose of this study was to evaluate the effectiveness of role clarification in reducing anxiety of the myocardial infarction patient's primary support person (PSP).

## Chapter 2

### REVIEW OF LITERATURE AND CONCEPTUAL FRAMEWORK

#### Review of the Literature

A number of studies have examined anxiety of the myocardial infarction patient's PSP. Most of these studies were descriptive in nature. Studies examining role clarification and support role performance are few. A review of the literature revealed that no research examined role clarity in a role clarification session as it relates to support role performance and anxiety of the myocardial infarction patient's PSP.

The presence of anxiety in the cardiac patient's PSP has been documented in a number of studies. Bedsworth and Molen (1982) conducted a study examining spouses' psychological stress during the patient's hospitalization. A non-experimental design was used in a convenience sample of 20 myocardial infarction patients' spouses. Stress was described as reported in interviews with spouses during the patients' stay in a coronary care unit. Anxiety was the most frequently reported response (51%) to identified threats. The most common type of threat was that of loss (75%), while the threat of new roles was identified by a minority (15%). However, examination of stress may have occurred

too early to capture anxiety in relationship to role changes. In addition, a small sample size may have limited the results.

The presence of anxiety in the myocardial infarction patient's PSP has also been identified after the patient's discharge home. Hentinen (1983) studied 59 spouses of myocardial infarction patients eight weeks after hospital discharge. A non-experimental ex-post facto design was used to analyze signs of stress and the need for instruction and support of myocardial infarction patients' wives. Signs of stress included insomnia (83%), fatigue (69%) and depression (55%). The spouses reported a lack of knowledge related to care of the patient at home. They reported no instruction for diet (64%), smoking (58%) or exercise (51%). The relationships between stress, instruction and support were not examined.

The effect of the PSP's level of anxiety in relationship to other variables has been researched. Miller and Wikoff (1989) conducted a study with a convenience sample of 40 myocardial infarction patients and their spouses examining spouses' psychosocial problems, resources and marital functioning three months after hospitalization. A non-experimental ex-post facto design was used. Anxiety was measured using the State Trait Anxiety Inventory. Pearson correlation indicated marital functioning as negatively related to both state ( $p < .002$ ) and trait anxiety ( $p < .000$ ). The researchers concluded that assisting

the PSP with anxiety reduction during the patient's hospitalization and recovery appeared essential. However, the small sample size limited generalizability of the results to other groups. No pretest was performed to act as a baseline in this study.

Miller and Wikoffs' (1989) findings were supported by a study by Miller, McMahon, and Ringel (1990). A cross-sectional, correlational design was used to study a sample of 136 coronary artery bypass surgery patients and their spouses for marital functioning in relation to spousal anxiety, coping methods and compliance. Simple regression analysis revealed spousal state anxiety as inversely and significantly related to marital functioning ( $p = .0038$ ). This finding would again support the importance of assisting the PSP with anxiety reduction. However, this study had a small sample size, limiting its generalizability. No pretest was done to serve as a baseline.

The relationship between marital functioning and emotional state was further examined with cardiac patients and spouses by Hilbert (1994). A nonprobability convenience sample of 66 myocardial infarction patients and their spouses ( $n = 132$ ) were examined in the acute care setting. Patients and spouses completed the Family APGAR instrument and the Affect Balance Scale. Descriptive results showed that both patients and spouses experienced substantial emotional distress in the acute care



setting when compared with norms for non-clinical subjects. Pearson correlation showed that couples' scores on each variable were significantly correlated. This included satisfaction with family function ( $r = .57$ ,  $p < .0001$ ), positive emotion ( $r = .64$ ,  $p < .0001$ ), negative emotion ( $r = .28$ ,  $p < .05$ ), and affect balance ( $r = .45$ ,  $p < .001$ ). A significant correlation was found in the spouse group between family function and positive emotion ( $r = .28$ ,  $p < .05$ ) and family function and affect balance ( $r = .27$ ,  $p < .05$ ). The study concluded that marital partners strongly influence each other's emotional states. In addition, it was concluded that spouses who have a low perceived satisfaction with family functioning may be at greater risk for emotional distress. However, generalizability of the results are limited by a small sample size and the nonprobability nature of the sample.

Sources of anxiety in the cardiac patient's PSP have been examined in a number of studies. Gilliss (1984) used a longitudinal descriptive design to study a convenience sample of 71 coronary artery bypass surgery patients and their spouses. The purpose of the study was to explore stress in the family during hospitalization and six months following discharge. A matched paired t-test revealed a significantly higher amount of stress present during hospitalization with the spouses as compared to the patients ( $t = -3.43$ ,  $p < .001$ ). A regression procedure identified role as the source of the difference in stress between patients

and spouses, however statistical results for the procedure were not provided in the published article.

Supportive-educative counseling by nurses and its effect on anxiety of myocardial infarction patients and their partners was examined in an experimental study by Thompson (1989). Sixty couples were randomly assigned to one of two groups: (a) the treatment group, who received a systematic program of nursing support in the form of one-on-one counseling in addition to routine care; or (b) the control group who received routine care. Anxiety was measured in both groups by the Hospital Anxiety and Depression Scale at the time of consent, and repeated at 24 hours and at five days. Analysis of variance demonstrated that the mean scores for the patients ( $p < .0005$ ) and the partners ( $p < .01$ ) in the intervention group were significantly decreased in comparison to the control group at five days. The counseling intervention in this study included teaching about risk factor modification and activity guidelines, and support for the expression of feelings and reactions by both patients and partners. Thus, the concept of roles was indirectly addressed in the groups.

There have been a limited number of studies examining support groups in relation to family members' anxiety during the critical hospitalization of a family member. Halm (1990) conducted a quasi-experimental study examining the effectiveness of a support group in reducing state anxiety of adult family members during a

relative's critical illness. In a convenience sample the control group (n= 30) received bedside support, while the experimental group (n= 25) attended a support group meeting in addition to the bedside support. Anxiety was measured by the State-Trait Anxiety Inventory, at the time of consent, and again between 12 to 18 hours after consent. The support group meeting occurred prior to the posttesting. One-tailed t-tests showed no significant difference in anxiety levels between the family members who received bedside support and those who attended support group sessions in addition to bedside support ( $t = .89$ ,  $p > .05$ ). However, experimental subjects who attended the support group sessions had a significant reduction in anxiety from pretreatment to posttreatment measurements ( $t = 2.69$ ,  $p < .01$ ). The findings suggest that the group intervention complemented bedside support in reducing anxiety of family members. Generalization of the research findings are limited by the small sample size.

The use of video with cardiac patients' spouses has had limited study. Gates (1990) examined a preoperative video's effect on anxiety levels of open heart patients' spouses. A pretest-posttest experimental design was used. The control group (n= 25) received routine preoperative teaching, while the experimental group (n= 25) viewed the preoperative video in addition to routine preoperative teaching. Anxiety was measured by the State-Trait Anxiety Inventory, with pretesting done the

night before surgery and posttesting done within five hours after surgery. Analysis of covariance showed that posttest anxiety levels of the experimental group were lower than the control group, but not at a significant level ( $p > .05$ ). The researcher gave several possible explanations. First, assisting the subject with coping was not done with the information giving and for some subjects the information may not have been their priority need. Second, the video may have been more effective if given three to seven days prior to the surgery. Third, the posttest may have been given too soon after surgery. Finally, a moderator to review information after the video may have increased effectiveness.

Role clarification with cardiac patients and their spouses has been examined in a small number of studies. Dracup et al. (1984) conducted a study to evaluate compliance in a role supplementation group for patients with documented coronary artery disease and their spouses. A sample of 58 couples was followed through a ten week series of group sessions based on Meleis' (1975) conceptual framework. Role clarification strategies were intentional role instruction, reference group interaction and role modeling. The study used a quasi-experimental time-series design. Three groups were evaluated: (a) group one consisted of patients and spouses who participated in the role supplementation group; (b) group two consisted of patients and their spouses, but only patients participated in the role supplementation group; and

(c) group three, the control group, consisted of patients and spouses who did not participate in the role supplementation group. Repeated measures analysis of variance revealed that participation of the spouse did not significantly increase patient compliance as expected. However, the researchers identified distinct differences in the two experimental groups which may have limited the study's findings. Anxiety and support role performance were not examined in either the patient or spouse.

In a study of wives' perceptions following their husbands' first myocardial infarction, Bramwell and Whall (1986) examined relationships between anxiety, empathy, role clarity and support role performance. Meleis' (1975) conceptual framework was used in the generation of three major hypotheses: (a) role clarity has a direct negative effect on anxiety and an indirect negative effect on anxiety via empathy and support role performance; (b) empathy has a direct negative effect on anxiety and an indirect negative effect on anxiety via support role performance; and (c) support role performance has a direct negative effect on anxiety. A non-experimental design was used with a convenience sample of 82 wives who were tested prior to the patient's hospital discharge and at three weeks after discharge. Path analysis results supported the third hypothesis. Perceived support role performance, as measured by a tool developed for the study, did have a direct negative effect on anxiety, as measured by the State Trait Anxiety

Inventory ( $p < .05$ ). Results support Meleis' (1975) proposition that one outcome of role insufficiency (ie. inadequate support role performance) is anxiety. The other two hypotheses were not supported. Generalizability of the results is limited due to the small sample size and the newly developed instruments.

The literature reviewed addresses many variables related to anxiety of the myocardial infarction patient's PSP. The presence of anxiety has been identified in multiple studies. The potential sources of anxiety and potential effects of anxiety on the PSP's life have been discussed. Inadequate support role performance has been positively related to anxiety. A limited number of studies identify role clarification as a beneficial nursing intervention in reducing anxiety. The lack of significant findings related to role clarification's effect on anxiety is likely due, in part, to the multiple number of variables potentially affecting anxiety. Thus, while the literature supports the use of role clarification as an intervention, this study will attempt to control for extraneous variables with the use of a comparison group, pretest-posttest design, and detailed demographic questionnaire.

### Conceptual Framework

Work by Meleis (1975) on role insufficiency and role supplementation offers a conceptual perspective for this study. The components and processes of Meleis' conceptual model are based on interactionist role theory. According to this theory, roles

are created, defined, stabilized, and altered based on interactions with others in complimentary roles (Dracup et al., 1984). This would include the myocardial infarction patient in transition from a sick role to a well role, in concert with the PSP in a support role transition.

Nurses assist individuals with health related life transitions and accompanying role transitions, by assessing for role insufficiency and intervening with role supplementation. A health-illness transition occurs when an individual moves from a well state to an illness state or from an illness to a well state. A role transition is the process of moving in and out of roles in a social system, and may result in role loss, role acquisition, or the simultaneous loss of one role and gain of another (Meleis, 1975). Role transitions require the individual to incorporate new knowledge, alter behavior, and thus change the definition of self in his/her social context (Meleis, 1975).

Nurses assess individuals during role transition for indicators of role insufficiency. Role insufficiency is defined as any perceived difficulty in the understanding and/or performance of a role. Role insufficiency may result from lack of knowledge of role behaviors, incongruity between role behavior and role expectations, or impaired or absent perceptions of role behavior (Meleis, 1975). In the case of a myocardial infarction,

the PSP's role is likely unfamiliar to her/him. Role insufficiency may be demonstrated in several ways, including anxiety, depression, apathy, grief, powerlessness and/or aggression (Meleis, 1975).

When potential or actual role insufficiency has been identified by the nurse, patient, and/or PSP, nurses may intervene using role supplementation. Role supplementation is the process of conveying information necessary to bring the individual to full awareness of anticipated behaviors, beliefs and goals involved in each role (Meleis, 1975). One component of role supplementation is role clarification. Role clarification is the identification of role-linked behaviors, sentiments, and goals associated with a role in concert with a significant other's role (Meleis, 1975).

Two role clarification strategies identified by Meleis are intentional role instruction and role modeling. Intentional role instruction is defined as the deliberate socialization of an individual to a specific new role (Meleis, 1975). Role modeling occurs when an individual is observed enacting a particular role so that others are able to understand and follow the role behaviors (Meleis, 1975). It is assumed within Meleis' (1975) framework that there is a positive correlation between the understanding of role requirements and support role performance.



### Hypothesis and Research Questions

This study was designed to evaluate the effectiveness of role clarification in reducing anxiety of the myocardial infarction patient's primary support person (PSP). The following hypothesis was explored in this study: Posttest state anxiety level will be lower among the primary support persons (PSPs) of myocardial infarction patients who receive role clarification in addition to conventional bedside support/teaching than those who receive only conventional bedside support/teaching.

In addition to the above hypothesis, the following research questions were addressed:

1. Was there a difference between pretest state anxiety and posttest state anxiety scores in the group receiving role clarification in addition to bedside support/teaching and the group receiving only bedside support/teaching?
2. What amount of variability in state anxiety was accounted for by role clarity and support role performance in the group receiving role clarification in addition to bedside support/teaching and the group receiving only bedside support/teaching?

### Definition of Concepts/Terms

Concepts and terms identified as important for this study included myocardial infarction patient, myocardial patient's

primary support person (PSP), role clarity, role clarification session, support role performance and anxiety.

The myocardial infarction patient is an individual who has sustained an acute myocardial infarction or "heart attack". The diagnosis of myocardial tissue damage is confirmed by a positive CPK-MB cardiac enzyme blood test.

The myocardial infarction patient's PSP is the adult the patient identifies as the person who will assume the major role in assisting and encouraging the patient during his/her recovery. The PSP may be a spouse, child, sibling, friend, etc.

Role clarity is the understanding of behavioral requirements for role performance, including knowledge of the goals, behaviors and sentiments, all in relation to occupants of counter roles (Meleis, 1975).

The role clarification session is a one hour meeting of one or more PSPs, with the researcher acting as facilitator. The purpose of the session is to provide role clarification through the use of instruction, videotape, and discussion.

Support role performance is the perception of the adequacy with which role behaviors are carried out, the effectiveness of role behaviors in accomplishment of related goals, and the congruence of role sentiments with role behaviors (Bramwell and Whall, 1986).

Anxiety is a state identified by transitory and/or general feelings of apprehension (Spielberger et al., 1983). State anxiety is a palpable reaction taking place at a particular time and level of intensity, while trait anxiety is how a person generally feels (Spielberger et al., 1983).

## Chapter 3

### METHODOLOGY

#### Design

A quasi-experimental design with a nonequivalent comparison group was used for this study. PSPs of hospitalized acute myocardial infarction patients were invited to participate. One group of PSPs received conventional bedside teaching and support from staff nurses and the inpatient cardiac rehabilitation nurses. The second group of PSPs elected to attend a role clarification session in addition to the conventional bedside teaching and support. All PSPs were informed of the role clarification session by the nursing staff and/or inpatient cardiac rehabilitation nurses. Thus, all PSPs had the option to attend the group.

The PSPs in both groups completed a pretest immediately after giving consent, prior to the optional role clarification session. The PSPs in both groups completed the posttest three weeks after consent. Posttesting was done three weeks after consent in an effort to capture data during the early outpatient phase of recovery, a time when dramatic role changes often are present.

An experimental design would have been preferable in identifying a causal relationship among variables, however there was an ethical constraint. The role clarification session had

been in place at the selected institutional setting for approximately six years. Both the cardiac rehabilitation staff, and PSPs who had participated in the session, identified it as an important component of the care provided. It could have been considered unethical to deprive PSPs the opportunity to attend this session.

### Sample

The subjects for this study were female PSPs of male myocardial infarction patients at one acute care hospital in west Michigan. Female PSPs were selected because of the nature of the clinical population. Male PSPs are fewer in number, as female myocardial infarction patients tend to be fewer in number, older, and are more likely to be widowed and/or without a male PSP. In addition, studies have shown that female caregivers of cardiac patients express a higher level of caregiving burden than men (Biegel, 1991), and are found to be significantly more distressed than male caregivers (Young & Kahana, 1989).

A non-probability convenience sampling method was used. Data was collected over an eleven month period from May, 1995 to April, 1996. The anticipated sample size for each group was 40. However, because of anticipated changes in the design of the hospital's cardiac rehabilitation program, and because of the expiration of the study's one year grant award, data collection was stopped prior to reaching the anticipated sample size. The

actual sample size was 31 experimental and 38 control subjects. With an alpha value of .05, power of .80, and a medium to large effect size, this sample size was considered sufficient (Polit and Hungler, 1991).

Myocardial infarction patients were identified by the hospital laboratory's daily CPK-MB cardiac enzyme computer summary, available to the researcher via the cardiac rehabilitation nurses. The patients met the following criteria:

1. First-time myocardial infarction
2. Acutely hospitalized at time of PSP's consent and pretest
3. May have experienced invasive procedure, including open heart surgery, as result of myocardial infarction
4. Physiologically stable (ie. without cardiopulmonary resuscitation, defibrillation, intra-aortic balloon pumping, or reinfarction) within previous 24 hours

Patients who met this criteria were then approached, briefly introduced to the study, and asked to identify their PSP. Specifically, the patient was asked to identify the female who would have the major role in assisting and encouraging him during his recovery.

PSP subjects for the study were selected according to the following criteria:

1. Eighteen years of age or older
2. Speaks, understands and reads English.

## Instruments

Demographic forms. An instrument to collect pretest demographic information was developed by the researcher for this study (Appendix A). Variables of interest included age, marital status, living situation, employment status and life changes.

An instrument to collect posttest demographic data was developed by the researcher for this study (Appendix B). The posttest demographic data form captured changes over the three week period in marital status, living situation, employment status and life changes. In addition, there were five questions specifically related to the PSP's role.

State-Trait Anxiety Inventory. The State-Trait Anxiety Inventory (STAI), developed by Spielberger et al. (1983), was used. This is a revised version of the widely used STAI of 1970 (Spielberger et al. 1983). It provides an operational measurement of state anxiety and trait anxiety. The state anxiety scale and trait anxiety scale each contain 20 statements that describe the presence or absence of anxiety. The state anxiety scale measures the intensity of the subject's anxiety at a particular moment. The trait anxiety scale measures how the subject generally feels. The scales are rated by the subject on a Likert type scale of 1 (not at all), 2 (somewhat), 3 (moderately so), and 4 (very much so). A total score can range from 20 to 80.

There is a high degree of validity reported for the trait and state anxiety scales. Substantial information is available on concurrent, convergent, divergent and construct validity in the Manual for the State-Trait Anxiety Inventory (Spielberger et al., 1983). There is also high reliability for internal consistency with the trait and state anxiety scales. Cronbach alpha coefficients for samples of working adults, students, and military recruits for the trait anxiety scale ranged from .89 to .91. Cronbach alpha coefficients for the state anxiety scale with the same samples ranged from .91 to .95. Alpha reliability coefficients for internal consistency are higher for the state anxiety scale when it is given under conditions of psychological stress (Spielberger et al., 1983). A high reliability for internal consistency was found in Bramwell and Whalls' study (1986) examining wives' anxiety in response to their husbands' first myocardial infarction. Cronbach alpha coefficients of .94 for the state anxiety scale and .90 for the trait anxiety scale were obtained. The Cronbach alpha coefficient for internal consistency in this study was computed as .93 on the state anxiety pretest and .94 on the state anxiety posttest. A Cronbach alpha coefficient for the trait anxiety scale in this study was computed as .94. Reliability coefficients of .70 or greater are considered adequate in making group comparisons (Polit & Hungler, 1991).



Role Clarity Questionnaire. The Role Clarity Questionnaire, designed by Bramwell and Whall (1986), was used to measure the clarity with which PSPs perceive their support role. The questionnaire was modeled after Rizzo, House and Lietzmanns' (1970) role ambiguity scale. Eight positively worded statements are rated by the subject on a six-point Likert type scale, ranging from 1 (completely disagree) to 6 (completely agree). The statements describe the knowledge a support person should have in assisting the patient during recovery, including the patient's physical needs, emotional needs, and activity level guidelines. The questionnaire was screened for face and content validity prior to its use in Bramwell and Whall's (1986) study by a panel of eight nurse researchers, clinical nurse specialists and cardiovascular nurse practitioners. It was then pretested with 17 wives of MI patients. Internal consistency was measured with coefficient alpha in the Bramwell and Whall (1986) study of 82 subjects. The Cronbach alpha coefficient was .82 with item-total correlations ranging from .45 to .72. The Cronbach alpha coefficient for role clarity in this study was .88.

Support Role Performance Questionnaire. The Support Role Performance Questionnaire, designed by Bramwell and Whall (1986), was used to measure PSPs' self-assessment of the adequacy with which they provide support to their partners after the myocardial infarction. The instrument consists of eight positively worded

statements, each of which are rated by the subjects on a six-point Likert type scale ranging from 1 (completely inadequate) to 6 (completely adequate). The statements describe the actual performance of assisting the patient during recovery, including assisting the patient with his physical needs, emotional needs, and activity guidelines. This tool was developed, pretested, and revised by Bramwell and Whall in a similar fashion to the Role Clarity Questionnaire. It was validated through submission to the panel of nurse experts who assessed the scale for face and content validity. It was then pretested with the wives of MI patients for further assessment of face validity and direction for item revision. Rating and revision continued until acceptable levels of agreement regarding face validity were achieved. Internal consistency was measured with Cronbach alpha coefficient in the Bramwell and Whall study (1986), producing a coefficient alpha of .88. Item-total correlations for the seven items ranged from .59 to .79. The Cronbach alpha coefficient for support role performance in this study was .92.

### Procedure

Recruitment of subjects. Myocardial infarction patients were identified by the daily laboratory cardiac enzyme summary. The researcher reviewed the patients' charts to verify that they met the predetermined criteria. She then met briefly with each patient and asked him to identify his PSP (see Appendix C).

The researcher met with the eligible PSP in the patient's hospital room or waiting room, with or without the patient present. The researcher explained the general nature and purpose of the study, following a prepared verbal script (Appendix D). The PSP was then asked to read the consent form in it's entirety, or the researcher read the consent form to the PSP while the PSP read along, if the PSP so preferred (Appendix E). The PSP was then asked to sign and date the consent form and it was witnessed by the researcher and a second witness. No PSP refused participation in the study.

The patient's health care team was notified of the PSP's participation in the study by a statement written by the researcher in the progress note section of the patient's chart. The progress note alerted team members to possible concerns that the PSP may have expressed during study participation. A copy of the signed consent form was placed on the patient's chart.

Collection of data. After written consent was obtained, the PSP was asked by the researcher to complete the pretest tools in the following order: pretest demographic form, state anxiety scale, and trait anxiety scale. In agreement with Spielberger's recommendations (Spielberger et al., 1983) the state anxiety scale was given before the trait anxiety scale. The researcher advised the PSP not to discuss the questions or answers with anyone while completing the pretest. The researcher left the room, allowing

the PSP approximately 15 minutes to complete the forms. The researcher then returned to retrieve the forms.

Three weeks after consent, posttest forms were mailed to the PSPs by the researcher with a request that they complete the forms and mail them back to the researcher in a self addressed, stamped envelope (Appendix F). Posttest forms included the posttest demographic form, state anxiety scale, role clarity and support role performance questionnaires. When posttest forms were not received by the beginning of the fourth week, a follow-up postcard was mailed to the PSP by the researcher (Appendix G). At the completion of the study a summary of the results were mailed to those PSPs who expressed an interest in receiving them.

The role clarification session. The role clarification session, "Supporting Hearts", was developed by the researcher in 1988. It was offered twice per week, on Tuesdays and Fridays, with the intent that every PSP had the opportunity to attend during a patient's hospitalization. The sessions were scheduled at 2:00 p.m. for 60 minutes, which corresponded with the patients' "rest time". The PSPs met in a private waiting room next to the Medical Intensive Care Unit and sat in a semi-circle arrangement of chairs. The number of PSPs who attended the sessions during the 11 months of data collection ranged from one to five PSPs per session, with an average of two PSPs per session. The researcher acted as facilitator for all sessions.

The session format for this study included an introduction by the facilitator, with an emphasis on confidentiality of information and feelings shared. Intentional role instruction was then provided by the facilitator regarding potential role insufficiency and the benefits of role clarification, following a session outline (Appendix H). Role insufficiency and role clarification information was based on Meleis' (1975) conceptual framework and a thorough review of the literature.

A 20 minute role clarification video was then shown. This video, titled "Portrait of the Heartmate: The Challenge of Recovery" (1989), is one of a series based on the book Heartmates by Rhoda Levin (1994). The video offers role modeling by showing a variety of spouses discussing their experiences, emotions, and role changes after their partners' myocardial infarctions.

After viewing the video, PSPs were given an opportunity to ask questions and share their experiences, feelings and anticipated role changes. The facilitator was available to answer questions, acknowledge and/or reflect the PSPs' feelings, and redirect conversation when necessary. The facilitator recorded descriptive notes when each session was completed, including unique characteristics of the PSPs, unique comments and responses, and/or questions that arose during the session.

Potential risks to subjects. There were minimal risks to the subjects involved in this study. The subjects may have

potentially become fatigued completing the questionnaires or during the role clarification session, although no subjects verbalized or exhibited fatigue. The subjects may have become emotionally distressed during the role clarification session, resulting from introspection and/or self-disclosure of feelings. No subjects were observed as abnormally distressed. Subjects were provided with appropriate resources for continued support follow-up, if they desired, including the hospital medical social work department and cardiac rehabilitation program.

There was a risk that subjects could have potentially felt a loss of privacy in completing the questionnaires, although no subjects verbalized this. The researcher emphasized the strict confidentiality of data collected on the questionnaires, including the omission of names on the questionnaires and the destruction of any list of subjects' names kept after the study was completed.

## Chapter 4

### RESULTS

The purpose of this study was to evaluate the effectiveness of role clarification in reducing anxiety of the myocardial infarction patient's primary support person (PSP). Data analysis was accomplished using the Statistical Package for Social Sciences (SPSS/WIN) software. Significance was set at  $p < .05$  for all tests.

#### Characteristics of Subjects

Eighty one PSPs initially met the criteria for this study. None refused participation. Of the 81 original candidates, six experimental and six comparison subjects were excluded from the study. Of these 12 subjects, two subjects' husbands died prior to the posttest (one experimental and one comparison). One comparison subject reported a breakup of her relationship with her significant other prior to the posttest. Three experimental and three comparison subjects did not return the posttest due to lack of available time. Of the remaining subjects, two experimental and one comparison, did not return the posttest and could not be reached for comment. Sixty nine subjects completed participation in the study.

Of the 69 subjects in this study, 31 subjects chose to attend the role clarification session at some point during the patient's hospitalization, and thus comprised the experimental group. Thirty eight subjects did not attend the role clarification session during the patient's hospitalization, and thus comprised the comparison group.

All of the subjects in the experimental group stated they chose to attend the role clarification session because it might help them in some way. The majority (66%) of the comparison group subjects elected not to attend the role clarification session, even though they were available to attend at a time when it was offered. These subjects stated they did not need the session's information and/or support. Approximately one-third of the comparison group subjects (34%) did not attend the optional role clarification session because of a scheduling conflict with a hospital procedure or because the patient was discharged prior to the session offering.

The majority of subjects in this study were middle aged. Fourteen subjects in the experimental group and 17 subjects in the control group stated that they were in the age range of 46-60 years. Table 1 illustrates the age ranges of all participants in the study.



Table 1  
Sample Distribution by Age Range In Years

Age Range	Experimental (n= 31) Frequency (Percent)	Comparison (n= 38) Frequency (Percent)
18-30	1 ( 3.2)	0 ( 0.0)
31-45	6 (19.4)	8 (21.1)
46-60	14 (45.2)	17 (44.7)
61-75	8 (25.8)	13 (34.2)
>76	2 ( 6.5)	0 ( 0.0)

The majority of PSPs identified themselves as wives of the MI patient. Twenty eight of the experimental PSPs (90.3%) and 36 of the comparison PSPs (94.7%) were wives. Three experimental PSPs and two comparison PSPs identified themselves as friends or companions of the MI patient. The majority of PSPs lived with the patient. Only one experimental subject identified herself as a companion who lived with someone other than the patient. Marital status and living status were unchanged pretest to posttest.

The educational backgrounds of the two groups were similar. The majority of subjects indicated their highest education completed as attendance or graduation from high school. Nineteen experimental (61.3%) and 26 comparison (68.4%) subjects attended or graduated from high school, but did not attend college.

A greater percentage of PSPs in the experimental group were employed outside of the home as compared to the comparison group. Most of those working did so on a full-time basis. Table 2

illustrates the employment categories of the sample. Table 3 shows sample distribution by work-time. Type and hours of employment did not change pretest to posttest.

Table 2  
Sample Distribution by Employment

Employment Category	Experimental (n= 31) Frequency (percent)	Comparison (n= 38) Frequency (percent)
Homemaker	8 (25.8)	17 (44.7)
Retired	4 (12.9)	4 (10.5)
Skilled	4 (12.9)	2 ( 5.3)
Unskilled	2 ( 6.5)	2 ( 5.3)
Clerical	3 ( 9.7)	5 (13.2)
Business executive	2 ( 6.5)	1 ( 2.6)
Professional	6 (19.4)	6 (15.8)
Owner of business	2 ( 6.5)	1 ( 2.6)

Table 3  
Sample Distribution by Work-time

Work Time Status	Experimental (n= 31) Frequency (percent)	Comparison (n= 38) Frequency (percent)
Full-time	17 (54.8)	12 (31.6)
Part-time	2 ( 6.5)	5 (13.2)
NA	12 (38.7)	21 (55.3)

The PSPs in both groups identified a variety of past experiences with heart conditions. A higher number of subjects in the experimental group stated that a person close to them had

experienced an MI or heart surgery in the past. Nineteen subjects (61.3%) in the experimental group and 11 (35.5%) in the comparison group reported a person close to them had experienced an MI. Sixteen (42.1%) experimental and 10 (26.3%) comparison subjects reported a person close to them had experienced heart surgery in the past. In addition, two comparison subjects had a history of an MI themselves, while one had a history of heart surgery.

A minority of the PSPs in both groups experienced their partner having heart surgery during their hospital admission for the MI. The percentage of this occurrence was similar between the two groups. Six experimental PSPs (19.4%) and seven comparison PSPs (18.4%) experienced their partner having surgery following the MI.

The PSPs in both groups were asked on the pretest demographic form to identify stressors that they had experienced within the past 12 months. They were also asked on the posttest demographic form to identify stressors that they had experienced, or continued to experience, since the patient's hospital discharge. Subjects were given a list of 14 possible stressors and were given the option of writing in other stressors not listed. The comparison group reported a range of zero to eight stressors at pretest and zero to six stressors at posttest, while the experimental group reported a range of zero to nine stressors at pretest and zero to six stressors at posttest. The majority of the comparison group

at pretest reported one (34.2%) or two (23.7%) stressors. A minority (15.8%) of the comparison group reported zero stressors at pretest. In contrast, a greater number (47.4%) of the comparison group reported zero stressors at posttest, while 30.2% reported one stressor and 13.2% reported two stressors. The majority of the experimental group at pretest reported zero (35.5%), one (22.6%), or two (16.1%) stressors. The experimental group's posttest scores were similar, with the majority again reporting zero (45.2%), one (22.6%) or two (19.4%) stressors. It is of importance to note that a smaller percentage of comparison subjects reported zero stressors at pretest (15.8%) as compared to the experimental group (35.5%). However, the comparison group had a greater increase in the number of subjects reporting zero stressors at posttest (47.4%) as compared to the experimental group (45.2%).

PSPs were asked on the posttest to what extent they believed their role as important in the patient's recovery. The subjects were asked to mark one of three choices: (a) very important, (b) important, or (c) not very important. None of the 69 subjects stated that their role was not very important. A higher percentage of the comparison group indicated their role as very important (84.2%), with 15.8% indicating their role as important. The experimental group stated their role was very important (71.0%) or important (29.0%).

Subjects were asked on the demographic posttest to describe what things had been helpful to them in their support role since the patient's heart attack. The support of friends and family was the most common response, with 18 experimental and 17 comparison subjects reporting this. A greater number of comparison subjects (18) found cardiac rehabilitation teaching and literature helpful as compared to the experimental subjects (6). A greater number of comparison subjects (10) identified their close relationship with their partner as being helpful as compared to the experimental group (1). Religious faith and/or prayer was identified by eight experimental and seven comparison subjects as helpful.

Subjects were also asked on the demographic posttest what they had learned about their support role since the patient's heart attack that they would like to pass on to someone else in a similar situation. The need for patience during their partner's recovery was the most common response, with 10 comparison and 6 experimental subjects reporting this. A greater number of experimental subjects (13) reported that encouraging the patient to be responsible for himself had been helpful, as compared to comparison subjects (4). A greater number of comparison subjects (10) reported feeling overwhelmed with their role change as compared to the experimental subjects (0).

### Anxiety Scores

The mean anxiety scores for this study are shown in Table 4. Adjusted mean scores were used for subjects who omitted one or two items on the trait or state instrument. Adjustment was done using Speilberger's prescribed method for respondents who omit one or two items on either scale, described in the Manual For The State-Trait Anxiety Inventory (Speilberger, et al., 1983). A prorated full-scale score was obtained by determining the mean weighted score for the scale items to which the individual responded, multiplying this value by 20, and rounding the product to the next higher whole number. An adjusted score was obtained for four subjects who were missing one variable on an instrument and two subjects who were missing two variables on an instrument.

Table 4  
Anxiety Scores

Anxiety	Experimental (n= 31)		Comparison (n= 38)	
	M	SD	M	SD
Pretest Trait	34.66	8.28	32.29	8.13
Pretest State	41.87	12.37	39.66	10.90
Posttest State	41.39	11.99	37.42	12.14

Scores for trait and state anxiety tests can vary from a low anxiety score of 20 to a high anxiety score of 80. State anxiety

scores are expected to be higher during stress, while trait anxiety scores are expected to remain relatively stable. The experimental group had higher mean scores for trait, pretest state and posttest state anxiety as compared to the comparison group.

Although trait anxiety is considered stable, the stronger the trait anxiety, the more probable the person will experience more intense elevations in state anxiety in a threatening situation (Spielberger et al., 1983). To examine the two groups' state anxiety scores further, the mean anxiety scores for the experimental and comparison subjects were grouped according to proneness to high versus low anxiety. The median of the trait anxiety scores was used to divide the two groups into high versus low anxiety groups. The median was used as an unbiased estimator in dividing each group as equally as possible. Mean state anxiety scores based on this grouping are shown in Table 5.

Table 5  
State Anxiety Scores Based on Proneness to High Versus Low Anxiety

State Anxiety	Experimental (n= 31)			Comparison (n= 38)		
	n	M	SD	n	M	SD
Low Anxiety						
Pretest	15	33.07	7.84	19	35.95	10.35
Posttest	15	34.13	9.73	19	34.74	14.67
High Anxiety						
Pretest	16	50.13	9.92	19	43.37	10.39
Posttest	16	48.19	9.87	19	40.11	8.50

Mean trait and pretest state anxiety scores were computed for the 12 PSPs who did not return a posttest. The six comparison PSPs who did not return a posttest had similar mean trait anxiety scores ( $M = 34.67$ ,  $SD = 8.7$ ) to the study sample of 38 comparison subjects ( $t = -.66$ ,  $d.f. = 42$ ,  $p = .51$ ). The six comparison subjects who did not return a posttest also had similar mean pretest state scores ( $M = 39.5$ ,  $SD = 11.09$ ) to the study sample of 38 comparison subjects ( $t = .47$ ,  $d.f. = 41$ ,  $p = .64$ ). However, the six experimental PSPs who did not return a posttest had significantly higher trait anxiety scores ( $M = 45.67$ ,  $SD = 7.47$ ) as compared to the 31 experimental subjects ( $t = -3.02$ ,  $d.f. = 35$ ,  $p = .005$ ). The six experimental subjects who did not return a posttest also had much higher pretest state anxiety scores ( $M = 52.67$ ,  $SD = 8.2$ ) as compared to the 31 experimental subjects ( $t = -2.19$ ,  $d.f. = 10.87$ ,  $p = .05$ ). The significance of these findings is limited by the low number of subjects in the group not returning a posttest.

#### Role Scores

The role clarity and support role performance scores are shown in Table 6. Scores for both tests can vary from a low of eight to a high of 48. The comparison group had a higher mean score for both role clarity and support role performance.



Table 6  
Role Scores

	Experimental (n= 31)		Comparison (n= 38)	
	M	SD	M	SD
Role Clarity	40.07	6.42	42.97	4.11
Support Role Performance	38.90	7.35	42.76	4.29

Independent t-tests were used to examine the differences between group means for role clarity and support role performance. There was a statistically significant difference found, with the comparison group scoring higher on both role clarity ( $t= 2.28$ ,  $d.f.= 67$ ,  $p= .026$ ) and support role performance ( $t= 2.59$ ,  $d.f.= 46.10$ ,  $p= .013$ ).

The mean role clarity and support role performance scores for the experimental and comparison subjects were also grouped according to proneness to high versus low anxiety. These scores are shown in Table 7. The high and low anxiety subjects in the comparison group had higher mean scores for both role clarity and support role performance.

Table 7  
Role Scores Based on Proneness to High Versus Low Anxiety

Anxiety	Role variable	Experimental (n= 31)			Comparison (n= 38)		
		n	M	SD	n	M	SD
Low	Role Clarity	15	40.60	7.02	19	43.95	4.17
	Support Role Performance	15	39.93	9.30	19	43.26	4.75
High	Role Clarity	16	39.56	5.99	19	42.00	3.92
	Support Role Performance	16	37.94	5.04	19	42.26	3.84

Independent t-tests were used to examine the differences between group means for role clarity and support role performance in the high and low anxiety groups. No significant differences were found between the experimental and comparison low anxiety groups for role clarity or support role performance. No significant difference was found between the two high anxiety groups for role clarity. However, support role performance was statistically higher in the comparison high anxiety group as compared to the experimental high anxiety group ( $t = 2.88$ ,  $d.f. = 33$ ,  $p = .007$ ).

#### Hypothesis and Research Questions

Analysis of covariance (ANCOVA) was used to analyze the hypothesis: Posttest state anxiety level will be lower among the

primary support persons (PSPs) of myocardial infarction patients who receive role clarification in addition to conventional bedside support/teaching than those who receive only bedside support/teaching, controlling for differences in proneness to anxiety. The pretest trait anxiety score was used as the covariate. A significant correlation was found between trait anxiety and posttest state anxiety. However, the hypothesis was not supported. The coefficient of determination showed that only 30% of variation in posttest state anxiety between the two groups can be explained by the intervention of role clarification. These findings are shown in Table 8.

Table 8  
ANCOVA for Posttest State Anxiety With Trait Anxiety As The Covariate

Source of Variation	df	MS	F	p
Between Groups	1	96.15	0.89	0.348
Covariate	2	1386.38	12.88	0.000
Within Groups	65	107.60		

(r-squared= .303)

In an attempt to explain the 70% remaining variance between the two groups not accounted for by the intervention of role clarification, a second ANCOVA was done grouping the experimental and comparison subjects according to proneness to high versus low anxiety. A significant relationship was again found between the covariate of trait anxiety and posttest state anxiety

( $f = 5.05$ ,  $p = .009$ ), however there was no significant difference found between the experimental and comparison subjects when grouped for high and low anxiety proneness ( $f = .69$ ,  $p = .559$ ). The coefficient of determination again showed that only 30% of variation in posttest state anxiety between the two groups can be explained by the intervention of role clarification ( $r\text{-squared} = .316$ ).

To further investigate the remaining variance between the two groups, a third ANCOVA was done examining specifically the high anxiety group. Although the role clarification intervention was found to be somewhat more effective with the high anxiety experimental subjects, there was no statistically significant difference found between the experimental and comparison high anxiety subjects ( $f = 3.02$ ,  $p = .092$ ). The coefficient of determination showed that 35% of variation in posttest state anxiety between the two high anxiety groups can be explained the role clarification intervention ( $r\text{-squared} = .354$ ).

A paired  $t$ -test was used to analyze the research question: Will there be a difference between pretest state anxiety and posttest state anxiety scores in the group receiving role clarification in addition to bedside support/teaching and the group receiving only bedside support/teaching? Although there was a slight decrease in the experimental group scores pretest to posttest, the difference was not significant ( $t = .23$ ,  $d.f. = 30$ ,

$p = .821$ ). Likewise, there was a decrease in the comparison group scores pretest to posttest, although this was not found to be significant ( $t = 1.19$ ,  $d.f. = 37$ ,  $p = .242$ ).

A paired t-test was repeated with the experimental and comparison subjects grouped according to high and low anxiety proneness. The experimental low anxiety group scores increased slightly pretest to posttest, but not significantly so. The experimental high anxiety group scores decreased pretest to posttest, but this was not statistically significant. The comparison low and high anxiety group scores decreased pretest to posttest, but this finding was not significant.

Correlation coefficients and multiple regression analysis were used to answer the research question: What amount of variability in posttest state anxiety is accounted for by role clarity and support role performance in the group receiving role clarification in addition to bedside support/teaching and the group receiving only bedside support/teaching? In the experimental group the Pearson correlation showed a significant negative relationship between role clarity and posttest state anxiety ( $r = -.312$ ,  $p = .044$ ), but no significant relationship between support role performance and posttest state anxiety ( $r = -.158$ ,  $p = .197$ ). In the comparison group the Pearson correlation showed no significant relationship between role clarity and posttest state anxiety ( $r = .028$ ,  $p = .434$ ) or support

role performance and posttest state anxiety ( $r = .017$ ,  $p = .460$ ). Multiple regression analysis showed that role clarity and support role performance could not be used as predictors of anxiety in either group ( $r\text{-squared} = .05$ ).

#### Other Findings of Interest

To determine if other relationships existed between variables in the two groups, additional correlation coefficients were done. In the experimental group the Pearson correlation showed a significant negative relationship between trait anxiety and support role performance ( $r = -.350$ ,  $p = .027$ ). In the comparison group a significant negative relationship was found between trait anxiety and role clarity ( $r = -.335$ ,  $p = .020$ ). Role clarity and support role performance were found significantly positively related in both the experimental group ( $r = .707$ ,  $p = .000$ ) and comparison group ( $r = .840$ ,  $p = .000$ ).

To determine if other variables were predictive of posttest state anxiety in the group as a whole, correlation coefficients and a multiple stepwise regression were done. As expected, trait anxiety was found to have a significant positive relationship with posttest state anxiety ( $r = .408$ ,  $p = .000$ ) and was found to account for 17% variance in the dependent variable ( $r\text{-squared} = .17$ ). The number of selected stressors on the posttest demographic form was also found to have a significant positive relationship with

posttest state anxiety ( $r = .216$ ,  $p = .037$ ), accounting for 23% variance in the dependent variable ( $r\text{-squared} = .23$ ).

In summary, the hypothesis for this study was not supported. Posttest state anxiety level was not found to be significantly lower among the PSPs who received role clarification. This finding was true even when examining subjects based on high and low anxiety proneness. Similarly, there was no statistical significance when examining the study's research question whether there would be a difference between pretest and posttest state anxiety scores in either the experimental or comparison groups. Pretest and posttest state anxiety scores were not significantly different in either group. Finally, when examining the study's second research question regarding the amount of variability in posttest state anxiety accounted for by role clarity and support role performance, it was found that role clarity and support role performance could not be used as predictors of posttest state anxiety in either of the two groups.

## Chapter 5

### Discussion and Implications

The effectiveness of role clarification as a nursing intervention was examined in this study. It was hypothesized that posttest state anxiety levels would be lower among PSPs who received role clarification in addition to conventional therapy than those who received conventional therapy alone. The hypothesis was not supported. There were, however, important differences between the two groups that may have affected state anxiety levels. These differences, along with other important findings, are worthy of discussion.

The experimental group had a higher mean trait anxiety score at pretest than the comparison group. According to Spielberger, et al. (1983), the stronger the trait anxiety, the more probable that an individual will experience higher elevations in state anxiety in a threatening situation. The experimental group did have a higher mean state anxiety score at pretest than the comparison group, especially those subjects who later in the study did not return a posttest. The experimental group continued to have a higher mean state anxiety score than the comparison group at posttest.



In addition to proneness to anxiety, several factors may have affected the state anxiety levels of each group. First, a greater percentage of experimental PSPs were employed full-time outside of the home as compared to the comparison group. The mean posttest state anxiety score of the experimental group may be indicative of their attempts to meet the demands of full-time employment along with their new demands in a support person role. Because of full-time employment, the experimental PSPs may have had less time to adjust to the impact of the myocardial infarction, lifestyle changes, and role changes.

A second factor that may have affected state anxiety levels is that a greater number of experimental PSPs reported a person close to them having had experienced a myocardial infarction in the past. Depending on the PSP's type of prior experience with a myocardial infarction, it may have affected the experimental group's mean state anxiety level. However, data was not collected as to the type of myocardial infarction experience the PSPs had been involved with in the past.

A third factor that may have affected state anxiety levels is that experimental PSPs had less of a reduction in the number of other stressors pretest to posttest as compared to the comparison group. In fact, the study findings showed that an increased number of stressors at posttest was significantly related to, and somewhat predictive of, greater posttest state anxiety.

Experimental PSPs may have been overwhelmed with the number of additional stressors, thus increasing their state anxiety.

A fourth potential factor that may have affected state anxiety levels is the intervention itself. The role clarification session could have potentially increased the posttest state anxiety level of experimental subjects. If the experimental PSP perceived the intervention as taxing on her available resources, she may have appraised it as stressful (Lazarus, 1974; Stern & Pascale, 1979).

Perhaps most importantly, all of the PSPs in the experimental group made a choice to attend the role clarification session. In contrast, the majority of the comparison group made a choice not to attend. Factors affecting this choice were not measured, however the experimental group may have elected to attend because of their higher proneness to anxiety and/or their higher pretest state anxiety. Thus, the experimental group may have perceived a need for help and/or perceived an inability to cope. Other factors affecting this choice might have been that the experimental subjects had few other support systems in their life and/or their preferred method of coping may have been in a group setting. In contrast, the comparison group may not have perceived a need for help and/or perceived an ability to cope. Other explanations may be that the comparison subjects may have had other support systems in place and/or they may have coped in a

manner other than attendance at a group. They may have preferred to cope independently through information seeking activities or used denial or avoidance.

#### Relationship of Findings to Previous Research

The presence of anxiety in the cardiac patient's PSP during the patient's hospitalization is well documented in the literature. This study supports previous research findings that the cardiac patient's PSP is emotionally distressed not only during the patient's hospitalization, but also during early outpatient recovery. Findings support the need for nurses to assist the PSP with anxiety reduction in both the inpatient and outpatient setting.

Normal anxiety levels are reported for a variety of subject groups in the Manual For The State-Trait Anxiety Inventory (Speilberger, et al., 1983). The mean trait and state anxiety scores for a normative sample of working adult females in the age group of 50-69 years are shown in Table 9. Mean trait and state anxiety scores for a normative sample of general medical-surgical (GMS) patients, mean age 55 years, are also shown in Table 9. The GMS scores reflect Speilberger's expectation that state anxiety scores are higher during a stressful situation.

Table 9  
Anxiety Level Norms Reported by Spielberger

Anxiety	Working Females Age 50-69 years (n= 382)		GMS Patients Mean age 55 years (n= 110)	
	M	SD	M	SD
Trait	31.79	7.78	41.33	12.55
State	32.20	8.67	42.68	13.76

The mean trait anxiety score for both the experimental and comparison groups in this study are similar to Spielberger's normative sample of working females. However, the mean pretest state anxiety scores for both groups in this study are much higher than Spielberger's normative sample of working females. The pretest state anxiety scores for both groups in this study are, in fact, similar to those of Spielberger's GMS patients. This is especially true of the experimental group. In addition, and perhaps more importantly, the mean posttest state anxiety scores for the two groups in this study remain higher than Spielberger's sample of normative working females. The experimental PSPs' mean posttest state anxiety score is very similar to that of Spielberger's GMS patient group.

The pretest state anxiety scores for both the experimental and comparison groups indicate that the PSPs were experiencing considerable stress during the hospitalization of their partners. This supports previous research that has examined PSPs in the

acute care setting (Artinian, 1992; Bedsworth & Molen, 1982; Gilliss, 1984; Halm, 1990; Hilbert, 1994; Skelton & Dominion, 1973; Thompson, 1989). Perhaps more importantly, the PSPs posttest state anxiety scores verify that subjects in both groups continued to experience stress three weeks after the myocardial infarction. Posttest state anxiety was particularly true of the experimental subjects, who had very similar state anxiety scores at both pretest and posttest.

It is of interest to note that 10 comparison subjects reported feeling "overwhelmed" on the posttest demographic instrument, in contrast to zero experimental subjects reporting this. Thus, both the state anxiety scores and descriptive findings support a number of studies that have identified anxiety as common and persistent in the PSP after the cardiac patient's hospital discharge (Artinian, 1992; Bramwell & Whall, 1986; Hentinen, 1983; Miller & Wikoff, 1989; Stanley & Frantz, 1988).

#### Relationship of Findings to Conceptual Framework

Meleis' (1975) work on role insufficiency and role supplementation provided the conceptual framework for this study. A myocardial infarction is a life transition, with accompanying role transitions, for both the patient and PSP. Role transitions require PSPs to incorporate new knowledge regarding their role, to change the definition of themselves as a support person (role

clarity), and alter their role behavior (support role performance).

Meleis (1975) assumes that most individuals in a role transition will experience role insufficiency. Because role clarity and support role performance were not measured at pretest, it can not be determined whether this assumption was supported by the study in the acute care setting. However, role clarity and support role performance were measured in both groups at posttest. Mean role clarity and support role performance scores were high for both groups, which does not support Meleis' (1975) assumption of role insufficiency in the early outpatient setting.

The comparison group scored significantly higher than the experimental group in both role clarity and support role performance at posttest. This difference was especially true of high anxiety subjects. The high anxiety comparison subjects scores were significantly higher for support role performance than the high anxiety experimental subjects. It is also of interest to note that a higher percentage of comparison group subjects indicated their role as very important as compared to the experimental subjects. Thus, subjects in the comparison group had a perceived better understanding of their role, perceived themselves as better performing their role, and perceived their role as more important as compared to the experimental group. However, Meleis' (1975) contention that a role clarification

intervention will increase both role clarity and support role performance cannot be addressed by this study because of the absence of pretest data. In addition, the conventional care of subjects in the comparison group may have included some one-on-one role clarification by staff nurses and/or cardiac rehabilitation staff, thus affecting the comparison group scores.

Meleis' (1975) framework assumes that role insufficiency (ie. poor role clarity and/or perceived inadequate support role performance) may be demonstrated by anxiety. This assumption was supported, in part, by Bramwell and Whalls' (1986) study, which showed that perceived support role performance did have a direct negative effect on anxiety. The present study, which used Bramwell and Whalls' (1986) role clarity and support role performance tools, lends support to Meleis' assumption in a different manner. A significant negative relationship was found between posttest state anxiety and role clarity in the experimental group, although role clarity was not predictive of anxiety. The present study also suggests that the role clarification intervention may have been somewhat more effective in subjects prone to high anxiety, although this finding was not statistically significant. These findings might suggest that experimental subjects may have had even higher posttest state anxiety scores had they not received the role clarification intervention.

Role clarity and support role performance were significantly positively related in both groups in this study. This supports Meleis' (1975) assumption that an understanding of role requirements will increase one's performance in a support role. Both groups had fairly high role clarity and support role performance scores. It is possible that the comparison group may have had pre-existing role clarity and support role performance prior to the myocardial infarction and/or may have sought out role clarification during conventional inpatient and/or outpatient care. In contrast, the experimental group may have had lower pre-existing role clarity prior to the myocardial infarction, and sought out the group role clarification intervention. Thus, it is possible that the experimental groups' mean role clarity and support role performance scores may have been lower at posttest had they not received the role clarification intervention.

#### Limitations

The greatest weakness of this study was the inability to randomly assign subjects to different treatment groups. Although the two groups in this study were homogeneous in relation to many demographic variables, the experimental group was clearly different in that it sought out the role clarification intervention. The validity threat due to selection bias was decreased, but not entirely controlled for, through the use of a pretest.



Generalizability of the study results is also limited by a small sample size. Although data was collected over an 11 month period, only 69 subjects qualified for the study. With 31 and 38 subjects in the experimental and comparison groups respectively, it may have been difficult to detect statistical significance on tests.

The subjects were relatively homogeneous in demographics as a group and thus may not be a representative sample of the population. All subjects were female and Caucasian. The majority were middle-aged, married to the patient, and high school educated. These variables, along with the fact that the sample was drawn from only one research site, limits generalizability to the population.

The attrition of subjects is a limiting factor in this study. It would have been particularly interesting to examine posttest data on the six experimental subjects who had a high pretest state anxiety scores, but failed to return the posttests. The inclusion of their data may have changed the study results.

Anxiety may not be the appropriate outcome variable affected by role clarification. Anxiety was selected as the dependent variable because of the extensive research available confirming its presence in cardiac patients' PSPs. In addition, anxiety was selected based on Meleis' (1975) contention of its prevalence with role insufficiency. When PSPs were asked at posttest to describe

what had been helpful to them in providing assistance to the patient, 18 experimental and 17 comparison subjects reported that support from family and friends had been helpful. A much larger number of comparison subjects (18) than experimental subjects (6) reported cardiac rehabilitation information as helpful. A much larger number of comparison subjects (10) than experimental subjects (1) reported their close relationship with their partner as being helpful. Eight experimental and seven comparison subjects reported faith and/or prayer as helpful. Thus, psychosocial variables suggested by the subjects as potentially appropriate outcome variables for analysis included coping and marital functioning.

The role clarification intervention was a one hour session that occurred during the patient's hospitalization. All of the experimental subjects attended only the one session. One hour may not have been enough time for PSPs to identify their roles, feelings, and goals. The PSPs may have benefited more from a lengthier session, or a series of sessions. In addition, the experimental PSPs may have been too overwhelmed with information and emotions in the hospital setting to retain the role clarification information. Sessions occurring in the outpatient setting may have been more beneficial.

Two role clarification strategies were used during the role clarification session; intentional role instruction and role

modeling. Intentional role instruction was accomplished through discussion. Role modeling was done by use of a videotape. It could not be determined if one of these strategies, or both, had an effect on role clarity and/or support role performance.

Posttesting at three weeks may have been too early to capture positive effects of the role clarification intervention. Typically the patient is still in a sick role at three weeks, not yet having returned to full pre-myocardial infarction activity levels. Posttesting at six weeks or later may have been more appropriate.

#### Recommendations for Nursing

The study's hypothesis was not supported and there were several limitations to this study. Thus, the study does not provide direct implications for nursing. However, the study can provide important recommendations for nursing practice, education, and research based on suggestive findings, the conceptual framework, and previous research. These recommendations apply to nurses in the acute care setting, with special emphasis on the continuation of care to the outpatient setting.

Application to Practice. The myocardial infarction patient's hospital length of stay is limited. The patient and PSPs' time during this short stay is monopolized with interventions, visits from various hospital personnel and visits from family and friends. In addition, the PSP's anxiety level is typically high.

Subsequently, these factors create a challenging environment for the nurse to interact with the PSP in the hospital setting.

Assessment of the PSP's psychosocial status is critical during this period. The nurse must focus on trait anxiety as an important variable, in addition to state anxiety, role clarity, and coping strategies being used. The initiation of appropriate interventions should occur at this time.

The practicing acute care nurse must have an understanding of PSPs' variability in their proneness to anxiety, state anxiety, role clarity, and coping strategies. Perhaps a pretest would help determine the appropriate intervention. Available interventions might include one-on-one counseling, group sessions, use of videotapes and audiotapes, and/or literature. Whatever the strategy, it should emphasize that anxiety and poor role clarity are quite typical in the PSP, and are to be expected. Nursing practice should include role clarification interventions when appropriate, with priority given to those PSPs who have a high proneness to anxiety.

It is essential that the acute care nurse encourage the PSP to follow-up her needs in the outpatient setting. Outpatient nursing care of the PSP should begin within one to two weeks after the patient's discharge home. Nurses in an outpatient setting have an opportunity to assess and intervene with the PSP on a scheduled, long-term basis. Although the PSP's anxiety level

typically remains high in the early outpatient setting, the patient's physical status has stabilized. This is an opportune time for the nurse to re-assess the PSP's trait anxiety, state anxiety, role clarity, support role performance, and coping strategies. The PSP, who is now likely experiencing actual role changes, may be more receptive to role clarification information at this time.

The practicing nurse can encourage the patient and PSP to participate in an outpatient cardiac rehabilitation program. It is essential that the PSP have direct involvement in the cardiac rehabilitation program so that her psychosocial needs can be addressed on an ongoing basis. Cardiac rehabilitation promotes the belief that individuals have control over their own health. It can provide the PSP with continued information regarding her role, and provide emotional support as needed. If the patient and PSP are unable to attend an outpatient cardiac rehabilitation, home health care and/or telephone follow-up may be appropriate. These are additional avenues through which anxiety and role clarity can be assessed, and appropriate interventions can be put into place. Whatever the outpatient setting, it is of utmost importance that acute care nurses are able to communicate psychosocial assessments and interventions to their peers in the outpatient setting.

Application to Nursing Education. Recommendations for nursing education include both nursing school and continuing education settings. Education of nursing students and continuing education of practicing nurses in both acute care and outpatient settings should emphasize the considerable distress experienced by the cardiac patient's PSP. This should include discussion of published nursing research studies that have examined the PSP's anxiety in the inpatient and outpatient settings.

Nurses should continue to be educated regarding role theory, specifically the potential for role changes in a cardiac patient and PSPs' relationship. Education should emphasize psychosocial assessment skills, including assessment of proneness to anxiety, state anxiety, role clarity, support role performance and coping. Nursing education should emphasize the use of psychosocial interventions, including role clarification. A variety of role clarification strategies should be emphasized in an attempt to meet PSP's individual needs.

Application to Nursing Administration. Recommendations apply to nursing administration in both acute care and outpatient settings. The nurse administrator can support psychosocial assessment of the PSP by providing nurses with appropriate assessment tools. The nurse administrator can also provide the nurse with appropriate intervention tools, including audiovisual equipment, videotapes, audiotapes, and literature. Nursing

administration can assist the nurse in providing the PSP an environment conducive to psychosocial assessment and intervention. This would likely include a private, quiet, and comfortable room to meet with the PSP. Budgetary support by nursing administration is needed to cover the costs of assessments and interventions, potentially including salaried time, nursing tools and an appropriate environment. Finally, the nurse administrator can assist in the PSP's care by supporting a system of communication between nurses in the inpatient and outpatient setting.

#### Recommendations for Further Research

This study's findings suggest the need for continued research with this population. Although posttest state anxiety was not significantly lower in the group who received the role clarification intervention, there are several factors that may have affected the results. Further research is recommended with changes in the sample, design and variables.

This study should be replicated, at least in part, with a larger sample size. The inclusion of subjects from several hospitals would increase the number of available subjects, and would perhaps offer a more heterogeneous group in regard to ethnicity, marital status, age and educational level. The inclusion of male PSPs should also be considered, as there has been limited research examining the male PSP's recovery.

Posttest state anxiety may have been assessed too early after hospital discharge to capture the effect of the intervention. A longitudinal study design may be more appropriate, as it would capture changes in the dependent variable over time. Perhaps anxiety could be assessed at pretest, followed with posttesting at three weeks, three months, six months, and one year.

Variations of the independent variable should be considered. Perhaps the type of role clarification intervention could be based on an individual PSP's need, such as a group intervention, one-on-one counseling, or the independent viewing of a video. Because a video would be less costly than one-on-one counseling or a group intervention, it might be interesting to examine the outcome of these strategies. A second possible variation with the intervention could be the brief introduction of role clarification in the hospital setting by use of a videotape or one-on-one counseling, followed with more extensive role clarification in an outpatient setting. Outpatient role clarification could occur in a cardiac rehabilitation program, physician office, home health care visit, or by telephone follow-up.

Anxiety may not have been the appropriate outcome variable to examine, as it may not have been the variable most affected by role clarification. It would be of particular interest to examine the PSP's coping style. The majority of comparison subjects in this study elected not to attend the role clarification session.



Therefore, it may be assumed that they perceived an ability to cope in their own way. It would be interesting to examine whether their method of coping was adaptive. An investigation examining coping styles of the myocardial infarction patient's PSP, and their correlation with role clarity, would be of particular interest.

### Conclusion

A myocardial infarction is characterized by emotional distress for the patient's PSP. It is thus essential that nurses assess the PSP's psychosocial status on an ongoing basis. Areas for assessment might include anxiety, frustration, guilt, anger and depression. Previous research, along with Meleis' (1975) conceptual framework, support the assessment of anxiety. Trait and state anxiety were examined in this study. Findings showed that subjects in both the experimental and comparison groups were more anxious than the norm in both the acute care and early outpatient settings. A limited number of studies identify role clarification as a beneficial nursing intervention in reducing anxiety. The effect of role clarification in reducing anxiety of the myocardial infarction patient's PSP was examined in this study. However, the subjects who received the role clarification intervention did not have a significantly lower posttest state anxiety level as compared to the comparison group. The lack of support for the study's hypothesis may be attributed to the number

of limitations discussed. Further research is needed to examine the effect of role clarification in the PSP's recovery.

## Appendices

## Appendix A

### Demographic Form

The questions below describe things about yourself. Please answer all questions to the best of your ability. There are no right or wrong answers. All information will be kept confidential.  
(The "patient" refers to the individual who was hospitalized with a heart attack and identified you as his primary support person)

1. Age: (Please check (X) age category)

- |  |  |
|--|--|
| <input type="checkbox"/> 18 through 30 years | <input type="checkbox"/> 61 through 75 years |
| <input type="checkbox"/> 31 through 45 years | <input type="checkbox"/> 76 years or above   |
| <input type="checkbox"/> 46 through 60 years |  |

2. Race: (Please check (X) primary ethnic category)

- |  |   |
|--|---|
| <input type="checkbox"/> White/Caucasian | <input type="checkbox"/> African American |
| <input type="checkbox"/> Oriental        | <input type="checkbox"/> Hispanic         |
| <input type="checkbox"/> Native American | <input type="checkbox"/> Other            |

3. Marital Status: (Please check (X) one)

- |                                  |                                   |
|----------------------------------|-----------------------------------|
| <input type="checkbox"/> Married | <input type="checkbox"/> Divorced |
| <input type="checkbox"/> Widowed | <input type="checkbox"/> Single   |

4. Your relationship to the patient: (Please check (X) one)

- |   |                                   |
|---|-----------------------------------|
| <input type="checkbox"/> Wife                 | <input type="checkbox"/> Friend   |
| <input type="checkbox"/> Sister               | <input type="checkbox"/> Daughter |
| <input type="checkbox"/> Other (specify_____) |                                   |

5. Your living situation: (Please check (X) one)

- |   |
|---|
| <input type="checkbox"/> You live with the patient                    |
| <input type="checkbox"/> You live with someone other than the patient |
| <input type="checkbox"/> You live alone                               |

6. Your educational level: (Please check (X) highest completed)

- |  |
|--|
| <input type="checkbox"/> Some of grade/junior/high school or completed high school |
| <input type="checkbox"/> Some of college   |
| <input type="checkbox"/> Completed 4 years college                                 |
| <input type="checkbox"/> Beyond 4 years of college                                 |

(PLEASE TURN TO NEXT PAGE)

7. Your current occupation (Please check (X) one)

- |  |   |
|--|---|
| <input type="checkbox"/> Homemaker             | <input type="checkbox"/> Clerical             |
| <input type="checkbox"/> Professional          | <input type="checkbox"/> Business executive   |
| <input type="checkbox"/> Skilled worker        | <input type="checkbox"/> Unskilled worker     |
| <input type="checkbox"/> Owner of own business | <input type="checkbox"/> Retired              |
| <input type="checkbox"/> Currently unemployed  | <input type="checkbox"/> Other (specify_____) |

8. If you work outside the home, you work: (Please check (X) one)

- ☐ Full time (40 hours or more per week)  
☐ Part time (Less than 40 hours per week)

9. Below is a list of things which happen to many people at some time in their life. Which of these have you experienced during the past **12 months**? (Please check (X) all that apply)

- ☐ Marriage  
☐ Divorce or separation from your spouse  
☐ Menopause  
☐ Pregnancy  
☐ An addition in your household  
☐ Retirement (\_\_\_\_your retirement \_\_\_\_spouse's retirement)  
☐ Moving  
☐ Major sickness or injury in family (other than the patient's heart attack)  
☐ Death of a family member or close friend  
☐ Children left home  
☐ Fired or laid off from work \_\_\_\_ Financial difficulties  
☐ Change in work hours or responsibilities  
☐ Concern over aged parents  
☐ Other (specify\_\_\_\_\_)

10. Below is a list of heart conditions. Which of these have you ever experienced? (Please check (X) all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Heart attack  | <input type="checkbox"/> Other heart condition |
| <input type="checkbox"/> Heart surgery | (specify_____)                                 |

11. Below is a list of heart conditions. Which has a person close to you experienced (other than the current heart attack patient)? (Please check (X) all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Heart attack  | <input type="checkbox"/> Other heart condition |
| <input type="checkbox"/> Heart surgery | (specify_____)                                 |

YOU HAVE COMPLETED THIS FORM. PLEASE CHECK AND MAKE SURE YOU HAVE ANSWERED ALL QUESTIONS.

**THANK YOU FOR YOUR EFFORTS!**

## Appendix B

### Demographic Form

The questions below describe things about yourself **since the patient's discharge from the hospital**. Please answer all questions to the best of your ability. There are no right or wrong answers. All information will be kept confidential.

(The "patient" refers to the individual who was hospitalized with a heart attack and identified you as his primary support person)

1. Marital Status: (Please check (X) one)

<input type="checkbox"/> Married	<input type="checkbox"/> Divorced
<input type="checkbox"/> Widowed	<input type="checkbox"/> Single

2. Your living situation: (Please check (X) one)

<input type="checkbox"/> You live with the patient
<input type="checkbox"/> You live with someone other than the patient
<input type="checkbox"/> You live alone

3. Your current occupation (Please check (X) one)

<input type="checkbox"/> Homemaker	<input type="checkbox"/> Clerical
<input type="checkbox"/> Professional	<input type="checkbox"/> Business executive
<input type="checkbox"/> Skilled worker	<input type="checkbox"/> Unskilled worker
<input type="checkbox"/> Owner of own business	<input type="checkbox"/> Retired
<input type="checkbox"/> Currently unemployed	<input type="checkbox"/> Other (specify _____)

4. If you work outside the home, you work: (Please check (X) one)

<input type="checkbox"/> Full time (40 hours or more per week)
<input type="checkbox"/> Part time (Less than 40 hours per week)

5. Which of the following have you done **since the patient's discharge from the hospital**? (Please check (X) all that apply)

<input type="checkbox"/> Attended a support group
<input type="checkbox"/> Received counseling by a professional (such as a social worker, psychologist, clergy person, etc.)
<input type="checkbox"/> Discussed role changes after a heart attack with a health care professional (such as a doctor, nurse, etc.)
<input type="checkbox"/> Read a book which discussed role changes after a heart attack (other than books received during hospitalization)
<input type="checkbox"/> Viewed a film which discussed role changes after a heart attack

(PLEASE TURN TO NEXT PAGE)

6. Below is a list of things which happen to many people at some time in their life. Which of the things listed below have you experienced **since the patient's discharge from the hospital?**  
(Please check (X) all that apply)

☐ Marriage  
☐ Divorce or separation from your spouse  
☐ Menopause  
☐ Pregnancy  
☐ An addition in your household  
☐ Retirement ( ☐ your retirement ☐ spouse's retirement )  
☐ Moving  
☐ Major sickness or injury in family  
☐ Death of a family member or close friend  
☐ Children left home  
☐ Fired or laid off from work ☐ Financial difficulties  
☐ Change in work hours or responsibilities  
☐ Concern over aged parents  
☐ Other (specify \_\_\_\_\_)

7. Who do you believe has the major role in supporting and encouraging the patient during his recovery?  
(Please check (X) one)

☐ Yourself  
☐ Someone other than yourself (specify \_\_\_\_\_)  
☐ Unsure

8. To what extent do you believe your role in the patient's recovery is important? (Please check (X) one)

☐ Very important ☐ Important ☐ Not very important

9. What things have been helpful to you when you are providing assistance and encouragement to the patient?  
(List all)

(PLEASE TURN TO NEXT PAGE)

10. What have you learned about your role as the primary support person since the patient's heart attack that you would pass on to someone in a similar situation? (List all)

11. Is there anything about yourself not covered in this form that you would like to discuss? \_\_\_\_yes \_\_\_\_no  
(If yes, describe)

YOU HAVE COMPLETED THIS FORM. PLEASE CHECK AND MAKE SURE YOU  
HAVE ANSWERED ALL QUESTIONS.

THANK YOU FOR YOUR EFFORTS!



## Appendix C

### Verbal Script (Patient)

Hello \_\_\_\_\_

My name is Sue Dunn. I am an R.N. at Butterworth Hospital and a student in the masters degree nursing program at Grand Valley State University. I am conducting a study for my thesis involving the support persons of patients who have had heart attacks. I am interested in the support person's role in assisting the heart attack patient, including the support person's feelings and her understanding of her role during the patient's recovery. Could you tell me who you believe will be your primary support person? This would be the female who will have the major role in assisting and encouraging you during your recovery. (PSP's name \_\_\_\_\_)

What is the support person's relationship to you? (PSP's relationship to patient \_\_\_\_\_)

What time of the day is your support person most commonly at the hospital? (Time of day \_\_\_\_\_)

I will meet with her in the near future to talk with her about my thesis work.

Thank you for your help.

## Appendix D

### Verbal Script (PSP)

Hello \_\_\_\_\_

My name is Sue Dunn. I am an R.N. at Butterworth Hospital and a student in the masters degree nursing program at Grand Valley State University. I am conducting a research study for my thesis involving the female support persons of male patients who have had heart attacks. I am interested in the support person's role in assisting the heart attack patient, including the support person's feelings and her understanding of her role during the patient's recovery. (Fill in heart attack patient's name) has identified you as his primary support person.

I would like your help in this study. If you agree to participate it would involve completing 3 questionnaires today, which will take about 15 minutes. In three weeks you will receive 4 questionnaires which will take about 30 minutes for you to complete. I will give today's questionnaires to you when we are done talking, and would pick them up from you in approximately 15 minutes. The questionnaires in 3 weeks will be mailed to you. A self addressed stamped envelope will be provided for you to return the questionnaires to me. Any information you provide on these questionnaires will be considered confidential and your name will not be used.

The risks involved in participating are minimal. Completing the questionnaires may cause you some fatigue or raise some concerns within yourself. Should this occur, I will be available to talk with you and/or refer you to appropriate resources. You may withdraw from the study at any time without any effect on your care or the care of the patient who has had a heart attack.

The benefits to you are limited. You may receive a better understanding of your feelings. By participating you will be adding to existing information known about support persons of heart attack patients.

You may ask questions at any time. I can be reached at (616) 391-1220 from 9:00 am to 5:00 pm Monday through Friday.

This study has been approved by the Human Research Review Committee of Grand Valley State University and the Research and Human Rights Committee of Butterworth Hospital.

Your signature on the consent form shows that your participation in this study has been explained to you to your satisfaction and that you freely consent to participate. A copy of the signed consent form will be given to you. A summary of the results of this study will be provided to you if you so desire.

Do you have questions about the study?

Would you be interested in participating?

## Appendix E

### CONSENT FORM

#### Role Clarification and the Myocardial Infarction Patient's Primary Support Person

I am willing to participate in a research study being conducted by Sue Dunn, RN, BSN, concerning the support person's role in assisting the heart attack patient during his recovery. A total of 80 persons will participate. I will be asked to fill out 3 questionnaires today and 4 questionnaires in 3 weeks. These will provide information about my understanding of my role during the patient's recovery, my feelings, and some general information about myself. Today's questionnaires will take about 15 minutes to complete. The questionnaires in 3 weeks will take about 30 minutes to complete. A self-addressed stamped envelope will be included with the questionnaires in 3 weeks to return them.

My confidentiality will be preserved and my name will not be revealed in any reports resulting from this study. There is no extra cost to me for participating. The risks involved in participating are minimal. Completing the questionnaires may cause some fatigue or raise some concerns within my mind. The researcher is available to discuss my concerns and can refer me to appropriate resources. Neither the researcher, Grand Valley State University, or Butterworth Hospital will accept any financial responsibility for referrals. I may withdraw from this study at any time without any effect on my care or the patient's care.

The possible benefits of participating in this study include a better understanding of my feelings and a contribution to nursing knowledge. This study is being conducted by Sue Dunn, an RN at Butterworth Hospital and a graduate student at Grand Valley State University. If I have questions I may call her at (616) 391-1220 between 9:00 am and 5:00 pm Monday through Friday. If I have any questions regarding my rights as a patient, I may call the Butterworth Institutional Review Board representative, Linda Pool, at (616) 391-1291.

I have read and understand the information presented above. All of my questions have been answered to my satisfaction. I consent of my own free will to participate in this study. I will receive a copy of this consent form.

\_\_\_\_\_  
Signature of primary support person

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of principle investigator

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of witness

\_\_\_\_\_  
Date

Appendix F  
Patient Letter

Date

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dear \_\_\_\_\_,

I am hoping that this letter finds you well. As you will recall, you agreed to participate in a research study concerning the support persons of heart attack patients. To conclude your participation in the study, I would like you to complete the four questionnaires enclosed.

These questionnaires will take approximately 30 minutes to complete. Please do not discuss the questions or your answers with anyone until after you have completed and mailed all of the questionnaires. A self addressed stamped envelope is provided for you to return the questionnaires to me at your earliest convenience.

I would like to thank you for your willingness to participate in this study. Your information will add to the understanding of the support person's role after a patient's heart attack. If you had indicated an interest in receiving the results of this study a summary will be sent to you when it is available.

I look forward to receiving your completed questionnaires soon. If you have any questions please do not hesitate to call me at (616) 391-1220.

Sincerely,

Sue Dunn, RN, BSN  
Masters Nursing Student  
Grand Valley State University

## Appendix G

### Patient Reminder Postcard

Date \_\_\_\_\_

Dear \_\_\_\_\_,

This is a reminder that your completed questionnaires for my research study have not yet been received. The information you provide is valuable to the completion of this study. Please do not hesitate to call me at (616) 391-1220 if you have any questions or concerns regarding the completion of these forms. I look forward to receiving them soon. Thank you again for your willingness to participate.

Sincerely,

Sue Dunn, RN, BSN

## Appendix H

### Supporting Hearts

#### Objectives

Upon completion of the Supporting Hearts session, the primary support person (PSP) will be able to:

1. identify the potential for role insufficiency in the PSP of a patient who has had a myocardial infarction.
2. recognize the potential benefits of role clarification.
3. describe the anticipated behaviors and goals involved in her role as a PSP.
4. discuss willingly her experience, feelings and anticipated role behaviors as a PSP.

#### Outline

- I. Introduction
  - A. Introduction of session facilitator
  - B. Introduction of participants
  - C. Emphasis of confidentiality
- II. Purpose of session
  - A. Support of the PSP during her/his recovery after a patient's myocardial infarction
  - B. Review of common needs based on past experiences and literature review
- III. Role insufficiency
  - A. Definition
  - B. Causes (types of role transitions)
  - C. Symptoms
  - D. Potential with the PSP of myocardial infarction patient
- IV. Role clarification
  - A. Definition
  - B. Strategies
    1. Intentional role instruction (video, discussion)
    2. Role modeling (video)
    3. Benefits for PSP of myocardial infarction patient
- V. Anticipated behaviors and goals as PSP of myocardial infarction patient
  - A. Video "Heartmates: Portrait of the Heartmate- The Challenge of Recovery"
  - B. Discussion
    1. Experiences
    2. Feelings
    3. Anticipated role behaviors and goals
- VI. Conclusion

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