This paper reviews the literature on the stresses and coping strategies of spouses of patients with myocardial infarction (MI). It attempts to identify specific problem areas of adjustment for the spouse and to explore the effects of spousal adjustment on patient recovery. Chapter one provides an overview of the importance in examining the psychosocial adjustment of the spouse of a patient with MI. Chapter two, the literature review, is divided into seven subheadings: an introduction to the literature, reactions of spouses to the MI, effects of the MI on the marital relationship, the spouse's needs, spousal coping methods, spousal influence on compliance, and a summary. Chapter three presents a summary of the purpose of the paper, followed by a discussion of the literature, conclusions, limitations of the literature reviewed, and recommendations for both further research and clinical applications. The literature reviewed suggests specific emotional symptoms experienced by wives of patients, including depression, anxiety, guilt, fear, worry, helplessness, loneliness, panic, fatigue, and irritability; specific somatic symptoms such as sleep and appetite disturbance, chest pain, inability to concentrate, tearfulness, palpitations, headaches, stomach pain, and faintness; and specific psychosocial needs, including the need to be included in treatment planning, the need for practical support (child care, transportation), and the need for emotional support. (NB)
SPOUSAL ADJUSTMENT TO MYOCARDIAL INFARCTION

A Seminar Paper Presented to
The Faculty of the College of Education
Ohio University

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

by
Elisa J. Ziglar
August, 1991
This seminar paper has been approved for the
School of Applied Behavioral Sciences and Educational Leadership
and the College of Education
by

Seminar Director

Director,
School of Applied Behavioral Sciences
and Educational Leadership

ii
# Table of Contents

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Statement of Problem</td>
<td>4</td>
</tr>
<tr>
<td>Research Questions</td>
<td>5</td>
</tr>
<tr>
<td>Significance</td>
<td>5</td>
</tr>
<tr>
<td>Delimitations</td>
<td>6</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>6</td>
</tr>
<tr>
<td>Procedure</td>
<td>7</td>
</tr>
<tr>
<td>Organization of the Study</td>
<td>8</td>
</tr>
<tr>
<td>2. Literature</td>
<td>9</td>
</tr>
<tr>
<td>Introduction</td>
<td>9</td>
</tr>
<tr>
<td>Reactions of Spouses to the MI</td>
<td>13</td>
</tr>
<tr>
<td>Effects on the Marital Relationship</td>
<td>19</td>
</tr>
<tr>
<td>The Spouse's Needs</td>
<td>22</td>
</tr>
<tr>
<td>Spousal Coping Methods</td>
<td>26</td>
</tr>
<tr>
<td>Spousal Influence on Compliance</td>
<td>29</td>
</tr>
</tbody>
</table>
Chapter One

Introduction

Introduction

The psychosocial effects of illness on the patient have long been studied and documented (Mailick, 1979; Morrow, Chiarello, & Derogatis, 1978; Moynihan, 1987; Olsen, 1970; Power & Dell'Orto, 1980). A vast amount of research literature has focused on patients who have suffered myocardial infarctions (MI) (Andrew et al., 1981; Boogaard, 1984; Waltz, 1986; Zetterlund, 1985). This literature has examined the patients' responses to the illness throughout the rehabilitation process. While some studies addressed the entire rehabilitation process (Mayou, Foster, & Williamson, 1978; Skelton & Dominian, 1973), others focused on specific stages of recovery including the acute onset of the illness (Bedsworth & Molen, 1982; Chavez & Faber, 1987; Leske, 1986; O'Keefe & Gillis, 1988), the recovery phase (Bramwell, 1984; Kline & Warren, 1983; Owen, 1987; Thompson & Cordle, 1988), and full rehabilitation (Hilbert, 1985; Hilbert, 1983; Maeland, 1988; Michela, 1981; Wishnie, Hackett, &
Cassem, 1971). The majority of this research has focused on the period of acute illness and hospitalization.

One particularly difficult phase of recovery is the period after the patient is released from the hospital and is homebound (Thompson & Cordle, 1988). However, these first two months of convalescence are not as thoroughly addressed in the literature as is the period of acute illness and hospitalization. The transition from hospital to home affects the patient's entire family and the family is probably the most predominant influence in determining the patient's adaptation (Davidson, 1979). The transition that the family must make at this critical time can be devastating to a family that lacks the coping skills necessary to adjust to the demands of caregiving and changes in roles.

Social support is an important influence in the patient's ability to adapt to the illness (Davidson, 1979). Spousal support is the most important source of social support, due to the nature of the marital relationship (Bedsworth & Molen, 1982); social support research indicates that patients receiving spousal support tend to make more complete recoveries (Davidson, 1979; Northouse,
The research suggests that support of the patient by his or her spouse plays an integral role in the patient's compliance with the physician's recommendations (Andrew et al., 1981; Kline & Warren, 1983; Miller & Wikoff, 1989; Scherubel, 1985; Southam & Dunbar, 1986).

There is a growing body of research which indicates that the patient's level of compliance with the physician's recommendations regarding diet, exercise, and medication is affected by the patient's psychosocial adjustment and level of social support (Andrew et al., 1981; DeVon & Powers, 1984; Gilbar & DeNour, 1989; Kline & Warren, 1983; Owen, 1987; Southam & Dunbar, 1986). Armed with knowledge about recovery from MI, necessary dietary changes, and prescribed levels of activity, the patient's spouse can help provide the impetus to comply, thus improving the prognosis.

Ultimately, the goal is to improve the prognosis and ease the recovery of the patient; a great deal of research is now geared toward the dilemma of the patient's spouse as a way to achieve this end (Bramwell, 1984; Chavez & Faber, 1987; Larsen, 1987; Levine, 1982; Livsey, 1972; Murdaugh, 1987; Northouse & Swain, 1987;
Nyamathi, 1983; Replin, 1985; Stetz, 1987). While the spouse may be the most important family member in terms of providing support to the patient, he or she may also bear the brunt of the stress associated with recovery (Baider & DeNour, 1984; Northouse, 1988; Stern & Pascale, 1979). The spouse of a cardiac patient endures, perhaps, as many changes in his or her life as does the patient. While providing support for a recovering family member, the patient's spouse may be faced with finding support for him or herself.

Although the literature includes a variety of recommendations to assist the family of cardiac patients to adjust to and cope with the stresses associated with an ill family member, very few empirical studies have been conducted in this area. A thorough understanding of the specific problem areas faced by patients with MI and their spouses is necessary in order to develop effective programs to meet the needs of this population.

Statement of the Problem

Spouses of patients with MI endure stresses similar to those of the patient; these stresses and coping strategies will be explored
in this paper.

**Research Questions**

1. Are there specific, identifiable problem areas of adjustment experienced by spouses of patients with MI in the literature?

2. Does the literature indicate a relationship between the spouses' problem areas of adjustment and the adjustment of the patient to the MI?

**Significance**

The purpose of this paper is to identify specific problem areas of adjustment for the spouse of the patient with MI and to explore the effects of spousal adjustment on the patient's recovery. The results of this review can be beneficial to health care professionals who may then be able to assist families through referrals to mental health personnel. Such referrals should facilitate families in alleviating their adjustment problems and therefore improve the patient's compliance with medical recommendations and prognosis. In addition, the review adds to the existing literature on the effects of illness on the patient's family, especially the spouse. Finally, areas in which further research is needed are identified.
Delimitations

The study encompasses information gleaned from a number of different fields of study. Literature from the field of health psychology pertaining to patient compliance with physicians' recommendations is included. Relevant material from the body of social support literature is reviewed. While a great deal of the information is obtained from medical and nursing journals, only that material that specifically addresses adjustment to illness is included in this study. Several studies that discussed specific interventions are reviewed.

Although this study focuses on a medical issue, this is not a medical study. Therefore, extensive medical terminology or data is omitted.

Definition of Terms

A few terms that appear often throughout the present study warrant specific explanation. Myocardial Infarction (MI), the illness that is primarily addressed in the review is known to the layperson arrest in which the heart ceases to function for a period of time. Instead, during a MI the heart malfunctions due to a lack of blood
supply to one or more areas of the heart (American Red Cross, 1988); this can be painful and frightening and can have serious consequences.

*Psychosocial adjustment* is defined as the multidimensional impact of illness and is associated with psychological role behaviors (Deroagtis, 1986). The dimensions associated with psychological and social adaptation to medical illness are: health care orientation, vocational environment, domestic environment, sexual relationships, extended family relationships, social environment, and psychological distress (Derogatis, 1986).

*Coping*, a process that occurs on many levels and that changes over time, is defined as behavior that is successful in "preventing, reducing, or eliminating the effects or consequences of the stressor on the husband [patient], spouse, or family" (Nyamathi, 1983, p. 514).

**Procedure**

This paper was researched using the PsychLit and MedLine CD-ROM systems at Alden Library at Ohio University. Search words, which were used singly and in combinations included: heart attack, myocardial infarction, adjustment, psychosocial adjustment,
family, and spouse.

**Organization of the Study**

Chapter One of the study has provided an overview of the importance in examining the psychosocial adjustment of the spouse of a patient with MI. Chapter Two, a literature review, is divided into seven subheadings: an introduction to the literature, reactions of spouses to the MI, effects of the MI on the marital relationship, the spouse's needs, spousal coping methods, spousal influence on compliance, and a summary. Chapter Three presents a summary of the purpose of the paper, followed by a discussion of the literature, conclusions, limitations of the literature reviewed, and recommendations for both further research and clinical applications.
Chapter Two

Literature Review

Introduction

Illness of one member of a family has an impact not only on the patient, but on the entire family. "From a systems perspective, when illness occurs in the family, the effects are not confined to the sick individual but reverberate throughout the family system." (Northouse & Swain, 1987, p. 221). Craven and Sharp (1972) note that the impact on the family is becoming a greater problem due to the restructuring of the family in our society; while extended families were once the norm, they have been replaced by smaller nuclear family groups. In addition, the increased pace of daily life and changes in the health care system have also affected the impact of illness on the family (Craven & Sharp, 1972).

Livsey (1972) states that when one family member becomes ill, the equilibrium of the family as a whole becomes disrupted and disorganized. Depending upon which member of the family becomes ill, the family may be faced with financial hardship, changes in roles within the family, and changes in structural generational
boundaries (Craven & Sharp, 1972; Livsey, 1972; Olsen, 1970). These
changes become stressors that are added to, and often compound, the
stress of the illness itself. While the amount of stress may depend
on the family's available resources, its life-cycle stage, and its
usual method of meeting its needs (i.e., within or outside of the
family itself) (Craven & Sharp, 1972), the stressors may change in
accordance with the severity and course of the illness and with the
phase of recovery (Mailick, 1979).

Some families are able to cope more effectively with the
additional stressors associated with illness. Those with strong
moral-religious values tend to respond in more adaptive ways
(Scherubel, 1985). Families with higher measures of psychosocial
adjustment prior to the illness are more likely to successfully
adjust to the stresses imposed by the illness (Mayou et al., 1978).

Chavez and Faber (1987) note that if the family is ill-equipped to
cope with the stress of the illness, the result could be that the
patient may be called upon to provide emotional support rather than
receive it.

"The same factors that predict subjective well-being in
healthy populations also have been identified as influencing the ability of the chronically ill to cope effectively with the after-effects of physical impairment." (Waltz, 1986, p. 792). One of these factors is social support, specifically from the ill person's spouse, whose role is inherent in the interdependent nature of the marital relationship. The quality of family life, especially the marriage, helps to determine the psychological and social outcome for the patient (Mayou, et al., 1978). Results from a longitudinal study of patients with MI and their spouses suggest that an emotionally fulfilling relationship can help to fill the gaps when effects of the MI force a change in life goals due to impairment or necessary retirement (Waltz, 1986). This study implies that perception of a happy family life can have a positive effect on the patient with MI.

The effects of the MI on the patient and his or her family can be very stressful. The spouse may be under a great deal of stress in order to maintain effective family functioning. He or she may be faced with the demands of changing roles, financial instability, and may be overwhelmed by a host of unwelcome feelings and symptoms
Changes in daily schedules and social activities due to the patient's illness may result in a decrease of social support for the spouse; changes in sexual activities and communication patterns may result in marital dissatisfaction (Mailick, 1979; Thompson & Cordle, 1988; Waltz, 1986). Overall, these changes may cause the spouse to resent the patient (Wishnie et al., 1971), thereby providing less support and affecting the prognosis. The ability of the patient's spouse to cope in an optimal way with his or her ill partner can significantly impact the patient's physical and emotional adaptation to the illness (Nyamathi, 1987).

Family members' attitudes, including those of the spouse, may have a profound effect on the patient's reaction to the prescribed regimen (Bedsworth & Molen, 1982); specifically, participation in rehabilitation programs was found to be related to family support (Scherubel, 1985). Spousal support, especially, affects the patient's compliance with the physician's recommendations; several studies have investigated the relationship between spousal support and compliance (Andrew, et al., 1981, Miller & Wikoff, 1989).

The spouse's attitude, ability to cope, and understanding of the
MI and its possible effects on the patient and family are important to the rehabilitation of the patient (Skelton & Dominian, 1973). Since the research suggests that the adjustment and prognosis of the patient is, at least to some extent, dependent on the support of the spouse, it follows that it is inherently related to the ability of the spouse to adjust to the changing demands placed on him or her. The spouse of a cardiac patient could be considered the fulcrum of a family in transition and as such merits further study.

Reactions of Spouses to the MI

A great deal of the research that addresses the spouses of patients with MI focuses on the reactions of the spouse to the acute event and the subsequent convalescence. Many of the studies began with an initial contact with the spouse shortly following the patient's admission to the hospital and compared this initial data to that collected at one or more follow-ups (Bedsworth & Molen, 1982; Mayou et al., 1978; Skelton & Dominian, 1973; Stern & Pascale, 1979). Owen (1987) notes that the stress and life changes experienced by the spouse of a patient with MI may persist for up to one year. The results of these studies, most of which utilized an
open interview format, illustrated the wide range of emotional and somatic responses that could be expected.

Emotional responses to and perceived threats from a MI were studied during the period immediately following admission to the cardiac care unit of the hospital (Bedsworth & Molen, 1982). In open-format interviews conducted with the wives of patients with a first MI, the subjects reported feelings of anxiety, depression, guilt, shame, anger, fear, apathy, helplessness, hopelessness, loneliness, and numbness. They perceived threats from loss of their mate, changes in their life goals, loss of a healthy mate, financial insecurity, new family roles, separation from their mate, the strange hospital environment, total responsibility for their dependents, recurrence of the MI, and recurrence of their own illness. This study did not include any information about the patient nor any follow-up interviews.

A number of studies have, however, included follow-up interviews. Another study that investigated emotional responses of the spouse to a MI also included somatic responses. Skelton and Dominian (1973) questioned 65 wives of patients with MI and found
that during the hospital stay, the spouses of the patients reported feelings of panic, threat of loss, fear of recurrence, guilt, self-blame, depression, anxiety, and overwork. Many of the patients' wives suffered from sleep and appetite disturbances and 26% reported psychosomatic symptoms including headaches, stomach pains, faintness, heart symptoms, chest pains, and palpitations. Demographic data indicated that wives under the age of 45 had more severe reactions than their older counterparts, and those with previous emotional problems suffered more. While 48% of the wives indicated that their incomes were reduced, this proved to be a source of worry for only 29%; those whose husbands had been self-employed found that they had added responsibility from the business (Skelton & Dominian, 1973).

The study by Skelton and Dominian (1973) included follow-up interviews at three, six, and twelve month intervals. Few changes were noted at the three month follow-up, and those that were reported were attributed to an increased fear of recurrence of the MI and problems due to the patients' reactions after being discharged from the hospital. Many of the wives stated that they had begun to
listen for heartbeat and breath sounds while their husbands slept and 88% reported new worries about recurrent chest pains and the patients' level of activity.

By twelve months after the MI, 40% of the patients' wives reported "satisfactory adjustment", which was not defined in the study. "Reasonable adjustment", described as ongoing tension, anxiety, and a lack of equilibrium was reported by 35%. The remaining 25% of the patients' wives reported "poor adjustment" including depression and severe emotional distress; in one half of these cases, the patient had either died or become physically incapacitated (Skelton & Dominian, 1973).

Another study that included several follow-up interviews included 82 wives of patients with a first MI; interviews were conducted in the hospital and at two and twelve month intervals (Mayou et al., 1978). This study found that wives experienced similar symptoms of anxiety, tearfulness, and sleep and appetite disturbances at all three interviews. At first follow-up, subjects reported unexpected difficulties during the first few weeks following their husbands' discharge from the hospital and that
anxiety, depression, fatigue, irritability, poor concentration, and insomnia were common.

Distress was still common at the twelve month interview; although wives reported that they were less irritable, they noted that they found themselves consciously controlling their tempers. Poor health became a frequent complaint of 40% of the subjects in the study and impairment of social life as well as additional responsibilities were noted by many. One confusing aspect of this study was that comparisons were made between wives and patients, however it was not indicated that the patients had been participants in the study. Nonetheless, some comparisons between patients and wives were made suggesting that during the initial stages of the illness the wives were more distressed than the patients, but after one year the spouses' levels of distress were reduced and were closer to the levels of the patients.

A study by Stern and Pascale (1979) was conducted with 25 spouses of patients with MI. The subjects, most of whom were female, were interviewed during the hospitalization and at six month follow-up using three testing instruments. Initially, the
spouses reported that they continued to attend to their own roles
and responsibilities in addition to assuming the patients' roles and
visiting the patient in the hospital. Symptoms including depression,
anxiety, concerns about the patient's survival and finances, guilt
about having caused the MI, and physical symptoms that mimicked
those of the patient were reported by 26% of the women.

At the follow-up interview, it was found that a different 28%
of spouses were symptomatic and that the symptoms that were
reported had changed. The new symptoms included concerns about
the patient's health, fear of relapse, and concerns about the
seemingly permanent changes in the family's equilibrium. Spouses
noted that upon the patient's discharge from the hospital, they were
faced with a new set of demands; reactions of anger and
overprotectiveness were common. The authors of the study noted a
lack of correlations between the anxiety and depression of the
patient and spouse, but again it was not indicated whether the
patients participated in the study.

The findings of these studies indicate that spousal reactions to
the MI change throughout the patient's recovery. These changes
appear to fit into a model that divides the illness and its impact into three phases (Maillick, 1979). The diagnostic phase is defined by uncertainty, guilt, anxiety, fear, a mixture of denial and acceptance, and a change in patterns. The second phase is labeled adaptation to long-term illness and is distinguished by feelings of powerlessness, anger, guilt, fear and tolerance. The adaptation phase is when role changes predominate and the family must balance care of the patient with continued growth. The third phase, ending of an episode of illness is the time of recovery. Roles change again, and a new balance is achieved that is marked by altered expectations. Anger and disappointments that previously went unexpressed may be voiced and hostility and conflict increase. The spouse may desire that previously deferred needs be met and that restitution for earlier sacrifices be made.

Effects on the Marital Relationship

Once the acute phase of the illness has ended, the patient's spouse may begin to exhibit behaviors engendered by helplessness and concern (Skelton & Dominian, 1973). The illness may have altered the nature of the partnership of the marital relationship as
evidenced by changes in roles and responsibilities (Davidson, 1979; Mayou et al., 1978; Michela, 1981). Michela (1981) discusses what appears to be a typical pattern of anger and conflict; differences in perception between spouse and patient seem to be a central issue in the conflict. Activities that the spouse may perceive as expression of concern may be interpreted by the patient as overprotectiveness, sympathy may be deemed proof of helplessness, and firmness construed as engendering guilt (Skelton & Dominian, 1973). What the patient may view as an attempt to merge the sick role behavior with previous role behaviors, the overprotective spouse may view as careless and defiant (Kline & Warren, 1983). An overprotective spouse's actions may be humiliating to a recovering patient (Wishnie et al., 1971).

Michela (1981) studied the perceived changes in the marital relationship following a MI in 40 couples. Results indicated that both patients and spouses experienced similar feelings of depression and helplessness which resulted in an increase in the expression of affection. Spouses felt an increase in anxiety and anger, but also a need to suppress conflict with the patient.
Eventually a power struggle may ensue between the patient and spouse (Davidson, 1979). Frustration with role changes by both partners can lead to marital strain (Waltz, 1986). Suppression of anger by the spouse can result in solicitousness that becomes punitive with deleterious effects on the marriage (Wishnie et al., 1971).

As recovery continues sexual relations, which have ceased during the acute and early recovery phases of illness, resume. Owen (1987) reports that 50% to 80% of couples resume sexual activity within two to six months of the MI. At a one year follow-up, Skelton and Dominian (1973) found that the sex life of subjects had returned to normal for 53% of subjects and had resumed with some changes for 39%.

Overall, the marital relationship survives the crisis. The interdependent nature of a spousal relationship is flexible enough to adapt. Mayou, et al. (1978) found that although 20% of the marriages in their study deteriorated, 25% improved. More encouraging were the results of a study by Thompson and Cordle (1988) in which 47% of the subjects thought their marital
relationships were closer, 37% noted no change, and only 16% felt the relationships were slightly worse off.

The Spouse’s Needs

In order for the patient’s spouse to effectively support and assist the patient through the recovery process, certain needs of the spouse must be identified and met. The spouse often feels a need to be involved with the patient’s physicians, but when included they may come to feel they are intruding (Moynihan, 1987). Questions about role uncertainty, expectations, and lack of information are frequent needs that should be addressed by the medical professionals (Miller & Wikoff, 1989; Olsen, 1970; Thompson & Cordle, 1988).

The wives of patients with MI often recognize their influence on their husbands’ convalescence and, although anxious to care for them, indicate that they are not provided with adequate information to do so (Mayou et al., 1979). Davidson (1979) stated that wives of cardiac patients reported feeling unsure of their abilities to provide an adequate diet for the patients. All of the 18 families of patients with MI interviewed by Wishnie, et al. (1971) indicated an
uncertainty about their roles in the patient's recovery.

Forty couples were studied following a MI and findings showed that 70% of the spouses received no information regarding what problems to expect, how to cope with problems that might arise, and what their own needs may be in the time of crisis; 57% of couples received no information on resuming sexual activities (Miller & Wikoff, 1989). The spouses in this study indicated that they had requested information, which indicates a recognition of unmet needs.

A number of researchers have identified spousal needs and have made recommendations in reference to attending to the needs of the spouses. O'Keefe and Gilliss (1988) note that families should receive focused and supportive interventions based on their perceived needs. In order to achieve consistency throughout the recovery process, families and the patient need to be provided with the same information about what to expect (Zetterlund, 1985).

While consistency of information is important, Miller and Wikoff (1989) criticize medical professionals for tending to address the spouse's needs from the patient's perspective.
Intervention with the family can enhance the patient's potential for recovery (O'Keefe & Gilliss, 1988). The physician, due to being trusted, is in a good position to help the family aid the recovery by including it in discussions that focus on future treatment; appropriate referrals can then be made as needed (Olsen, 1970). Other medical personnel, including nurses, can also provide information and support (Thompson & Cordle, 1988). One way this can be achieved is by utilizing a systems perspective, that is, viewing the patient as a part of a family as well as an individual (Craven & Sharp, 1972). Additionally, both the patient and spouse should receive an explanation of the treatment plan and be given an opportunity to discuss their expectations and concerns with the doctor or nurse (Chavez & Faber, 1987; Craven & Sharp, 1972; Kline & Warren, 1983).

Education groups led by nurses may be appropriate referrals for spouses of patients with MI (Stern & Pascale, 1979). In some cases the spouse may choose to participate in the cardiac rehabilitation program, although spouses are rarely routinely included (Miller & Wikoff, 1989). Assuming that in some cases the family will lack
the skills necessary to cope with the medical crisis and the ensuing stresses, a referral to mental health providers may be warranted; group therapy, couples therapy, family and individual counseling could all be appropriate referrals (Levine, 1982; Olsen, 1970; Stern & Pascale, 1979).

The high incidence of unmet needs and lack of provision of information may indicate a lack of awareness of spousal needs by medical personnel. Only one study was found that indicated that many of the spouse's needs are being met. In a study by Thompson and Cordle (1988) 71% of the wives of patients with MI reported that they had received enough support although only 23% of that support came from doctors and nurses. Most of the wives felt that they were well-informed about the patient's smoking, exercise, and medications, 21% believed they knew enough about MIs, and 24% felt that the medical professionals gave them opportunities to ask questions. The most overlooked areas were general care and diet.

This study (Thompson & Cordle, 1988) suggests that the spouse's needs may change throughout the recovery process. Certainly emotional support and information are needed during the
acute phase of the medical crisis as a means of reducing uncertainty (Chavez & Faber, 1987; Zetterlund, 1985). Northouse (1988) found that ongoing support has a greater influence than does initial support, and dependability of the support network is more important than its size. Support may be most needed by the spouse following the patient's discharge from the hospital when he or she is confronted with decisions and unforeseen uncertainties and worries (Thompson & Cordle, 1988), but certain types of practical support (e.g., help with childcare, transportation to the hospital) became less important once the patient comes home (Mayou et al., 1978).

In addition, the study by Thompson and Cordle (1988) suggests that not all of the spouse's needs must be met by medical personnel. Results of the study indicate that 74% of spousal needs are met by relatives, and 30% are met by neighbors. Owen (1987) notes that coworkers are often a source of emotional support for the spouse of a patient with MI. Finally, the spouse may seek assistance in meeting his or her needs by consulting a pastor or mental health professional (Stern & Pascale, 1979).

**Spousal Coping Methods**
Spousal stress due to life changes may persist for up to one year during which time various coping mechanisms will be used (Owen, 1987). As the spouse's needs change throughout the different phases of illness or recovery, so do the coping responses that are utilized by the spouse to relieve his or her stress (Murdaugh, 1987). Coping behaviors reflect the spouse's ability to adapt to changes in the environment.

The ability to cope can be influenced by a number of factors in the environment and the type of coping mechanisms used (Nyamathi, 1983). Specific coping styles and behaviors are determined by the personality of the individual and the particular changes to which he or she is attempting to adapt (Nyamathi, 1983). Specific coping mechanisms can be conscious or unconscious (Nyamathi, 1983), active or passive (Bedsworth & Molen, 1982). The patient's spouse may use specific coping behaviors to strengthen him or herself, avoid a given situation, or attack uncomfortable feelings. Murdaugh (1987) notes that there are two types of coping, problem focused and emotion focused, and that the former is utilized more frequently.
Problem focused coping mechanisms are goal-oriented and active; they are geared toward material concerns. They include such activities as obtaining child care, transportation to the hospital, assistance with household chores, seeking information, maintaining a stable income, and maintaining control of the situation (Murdaugh, 1987; Stern & Pascale, 1979). This type of coping may be the essence of what is meant by friends and relatives who advise the spouse to "keep busy".

Emotion focused coping is aimed at alleviating uncomfortable feelings such as loneliness, fear, depression, and anxiety. Included are such activities as maintaining hope, seeking support from another person (e.g., professional, pastor, friend, or relative), and maintaining leisure activities (Mayou et al., 1978; Stern & Pascale, 1979).

Work is the most commonly cited coping mechanism (Mayou et al., 1978; Owen, 1987; Skelton & Dominian, 1973; Stern & Pascale, 1979), although at first mention, one might consider it to be a stressor instead. Employment, whether for pay or as a volunteer, can provide the patient's spouse with a break from the responsibility
of caring for and worrying about an ill loved one. Co-workers can be a source of social support for the spouse, especially if social activities have become limited (Owen, 1987). Results from the study by Mayou, et al. (1978) indicated that the wives of patients with MI that were the least distressed were those who continued to enjoy their jobs. Skelton and Dominian (1973) noted that the wives in their study found work to be helpful and that of the six percent who began working after their husband's MI, one-half did so to overcome depression.

The spouse of the patient with MI may use a wide variety of coping behaviors and styles to adapt to the stressors associated with the MI. The literature indicated that coping behaviors are either problem focused or emotion focused. Although several coping mechanisms were used, the most frequently mentioned in the literature was work.

**Spousal Influence on Compliance**

The ability of the spouse to cope with the stresses associated with the MI may have an impact on the amount of support he or she is able to provide for the patient (Olsen, 1970; Skelton & Dominian,
The family and spouse of the patient with MI may be of the most benefit to the patient by being supportive rather than directive (Davidson, 1979). Mayou, et al. (1978) noted that the spouse of a patient with MI has a great deal of influence on the rate and extent of the patient's convalescence. One way that the spouse can affect the convalescence is by encouraging the patient to comply with physician's recommendations (Miller & Wikoff, 1989).

Physician's recommendations can include prescriptions for medications, diet, and exercise. The most significant result in a study that examined the reasons for drop-out from exercise programs in post-coronary patients was that "the drop-out rate of those whose spouses were indifferent or negative toward the program was three times that of those whose spouses were supportive." (Andrew et al., 1981, p. 166).

A study by Miller and Wikoff (1989) also examined compliance with the treatment regimen. Forty patients and their spouses answered questionnaires. Their findings suggested a less direct relationship between spousal support and compliance; the patient's perception of how well others think he or she is complying with the
treatment regimen was a greater predictor of compliance than is actual compliance.

Not all of the literature is in agreement on spousal influence on compliance. Results of a study by Hilbert (1983, 1985) suggest that participation in a cardiac rehabilitation program is the best predictor of total compliance, not spousal support. However, Scherubel (1985) noted that participation in a rehabilitation program is directly related to family support.

Summary

The findings suggested by the current literature are congruent in a number of areas. There are certain identifiable reactions that spouses of patients with MI have to the trauma created by the illness. These reactions are both emotional and somatic; they include symptoms such as depression, anxiety, fearfulness, guilt, sleep and appetite disturbances, stomach pains, headaches, and palpitations. The spouses are able to identify their need for information, support, and practical assistance. The literature indicates that these needs change through the stages of the recovery process and that the spouses utilize a variety of coping behaviors to
meet their needs. Coping mechanisms are determined by factors such as the spouse's personality and the particular situation; they can be problem focused or emotion focused. Work is the most frequently cited coping mechanism that spouses use to adapt to the crisis.

The MI has an overall positive impact on the marital relationship which, in turn can affect the patient's compliance with medical recommendations such as diet and exercise. Spousal support can influence the rate and extent of the patient's recovery and therefore, the prognosis. The majority of the problems engendered by the MI are transitory; the prognosis for the patient, spouse, and the marriage can be improved if the individuals involved as well as the medical personnel become aware of the potential adjustment problems.
Chapter Three

Discussion, Conclusions, and Recommendations

Summary

The purpose of this paper is to explore the specific stressors endured by the spouses of patients with MI, and the coping strategies utilized by this population. It has been proposed that the patient's spouse can play an important role in affecting the patient's prognosis by improving compliance to the physician's recommendations. Consequently, the ability of the spouse to adjust psychosocially to the MI may have an impact on the patient's ability to adjust. Relevant literature has been reviewed in Chapter Two, and that literature is discussed in Chapter Three.

Discussion

There seems to be agreement among researchers that the patient afflicted with an illness is not the only person affected by that illness (Craven & Sharp, 1972; Livsey, 1972; Northouse & Swain, 1987). The patient's family, and above all his or her spouse, is also impacted by the illness (Bedsworth & Molen, 1982). Role changes are identified as a particular problem because they
influence each family member (Bedsworth & Molen, 1982), and the equilibrium of the family unit as a whole (Livsey, 1972). Other frequently cited changes exacerbated by illness are financial difficulties and a decrease in activities that provide social support (Bedsworth & Molen, 1982; Skelton & Dominian, 1973; Stern & Pascale, 1979). These changes are stressful and the family's ability to cope with this stress is dependent on a number of factors. These factors include life-cycle stage, family values, psychosocial adjustment of the family prior to the illness, available resources, and the family's usual method of meeting its needs (Craven & Sharp, 1972).

Craven and Sharp (1972) state that the stressors may change depending on the severity and course of the illness and the phase of recovery. It is important to be aware that while all of the empirical studies reviewed are specific to MI, some of the non-empirical literature cited refers to other illness (e.g., Northouse & Swain, 1987, discuss breast cancer), while the remainder refers to general illness within a family (Livsey, 1972; Mailick, 1979; Olsen, 1970). This information is nonetheless applicable to families affected by
MI, because it appears that there are some similarities between the reactions and needs of families with an ill adult member, no matter what the nature of that illness may be.

There are a number of methodological difficulties in the reviewed literature. In most of the empirical studies cited the patients with MI were males and the spouses females, or only wives of male patients were studied. This could create confusion and the erroneous belief that MI afflicts only males. One must question whether male spouses of female patients face similar or different adjustment problems. Only one study addressed this problem; Stern and Pascale (1979) noted that the majority of spouses in their study were female due to the fact that most of the male spouses dropped out of the study. The remainder of the studies failed to note or comment on the apparent sexual bias. This makes it difficult to generalize to females with MI and their spouses.

Another difficulty is the lack of common operational definitions and measurable variables. Operational definitions clarify the specific focus of an empirical study and without them the results of the study are impossible to interpret. As previously
noted, most of the studies utilized an open-interview format, wherein subjects were asked to describe feelings, needs, etc. The studies that did use specific instrumentation utilized a wide variety of different instruments so that results of the studies are difficult to compare.

Two of the studies developed questionnaires specific to the study (Kline & Warren, 1983, Michela, 1981), and these questionnaires were thoroughly described, but data on validity with external criteria was not provided. A number of other instruments were identified in the literature, although no two studies reviewed utilized any of the same testing instruments. The wide variety of instrumentation utilized in the empirical studies serves to undermine the validity of the findings. This lack of validity, caused by an inability to generalize results between studies, weakens the entire body of literature.

An additional difficulty in interpreting data from the literature is the variety of time intervals used by the various researchers. Some studies (Bedsworth & Molen, 1982; Michela, 1981; Thompson & Cordle, 1988; Wishnie et al., 1971) were based on a one-time
interview with spouses of patients. Other studies (Mayou et al.,
1978; Scherubel, 1985; Skelton & Dominian, 1973; Stern & Pascale,
1979) included one or more follow-up interviews at varying
intervals. Some researchers (Andrew et al., 1981; Kline & Warren,
1983; Miller & Wikoff, 1989; Waltz, 1986) failed to identify at what
point or how often contact was made with subjects. While these
differences could be said to provide more detailed data within the
time frame, the result is a lack of consistency in the findings. The
question of how to analyze data obtained by different methods
remains. Subjects interviewed more than once may be in some way
affected by the repeated contact with the researchers; they may
become more comfortable talking about the crisis in the family and
therefore disclose more information. In addition, there may be
unrelated events that occurred between contacts with the subjects
that produced the changes found in the study. These intervening
variables may confound the results of the study and impair the
researcher's ability to draw accurate conclusions.

One final issue is the methodological sample of the studies
which range from N=13 (Replin, 1985) to N=639 (Andrew et al.,
1981). Some studies reported the total number of couples participating in the study (Kline & Warren, 1983, Michela, 1981), and some reported the number of individual participants (Mayou & Foster, 1978; Nyamathi, 1983; Skelton & Dominian, 1973; Stern & Pascale, 1979; Thompson & Cordle, 1988). One study (Scherubel, 1985) reported an unequal number of patient and spouse participants which could conceivably skew the results. In addition, due to the nature of the studies, subjects were not randomly sampled but were, instead, voluntary participants. Both small sample size and lack of random sampling can negatively affect the generalizability of the findings, thus again impairing the validity of the study.

Despite the difficulties in interpreting the results of these studies and correlating them to each other, some general conclusions can be drawn. Due to concerns about validity of instruments used in some of the studies as well as apparently lax control of variables, these conclusions may be tentative at best. The fact that the results implied by the various studies concur, adds credence to the conclusions.

Conclusions
The results of a search of the relevant empirical literature indicate that there are specific, identifiable problem areas of adjustment that are experienced by female spouses of patients with MI. The available research, which is specific to female spouses of male patients with MI cannot necessarily be generalized to male spouses of female patients with MI. The studies lacked measurable variables, valid instrumentation, and consistency; therefore no conclusive findings are available. The literature does suggest specific emotional symptoms that are experienced by female spouses including: depression, anxiety, guilt, fear, worry, helplessness, loneliness, panic, fatigue, and irritability. Specific somatic symptoms suggested include sleep and appetite disturbance, chest pain, inability to concentrate, tearfulness, palpitations, headache, stomach pain, and faintness. The literature indicates that these symptoms change and abate as recovery progresses.

In addition to the emotional and somatic responses of the spouses to the MI, certain psychosocial needs are identifiable. These needs also seem to change throughout the course of the patient's recovery, with a major change occurring when the patient
is discharged from the hospital. The primary need that is perceived by female spouses of male patients with MI is the desire to be included in treatment planning by the medical personnel; specifically to be provided with information about the recovery process, their role in that process, and what problems might be anticipated. During the patient's hospitalization the spouses indicated a need for practical support in the form of child care and transportation to the hospital. Throughout the recovery process the spouses indicated a need for emotional support from an ongoing, dependable network of family, friends, and professionals.

The research indicates that the spouse's ability to cope reflects the ability to ensure that his or her needs are met. Spousal coping mechanisms are influenced by a number of factors including the personality of the spouse and whether the coping response is conscious or unconscious. Research findings suggest that coping can be problem focused or emotion focused and it, too, changes as recovery progresses. Problem focused coping mechanisms include asking for assistance with or finding the means to obtain child care, transportation to the hospital, assistance with household chores.
needed information, and a stable income; they are goal oriented and active. Emotion focused coping mechanisms include maintaining hope, seeking support from another person, and maintaining leisure activities. Work is repeatedly indicated to be the most important coping mechanism.

The literature supports the premise that the MI initially affects the marital relationship negatively. Sexual relations which temporarily cease due to the illness usually resume, although in some cases there are lingering changes from before the MI. The literature suggests that the overall quality of the marital relationship improves once the crisis has ended.

Finally, the female spouse appears to have an effect on the male patient's compliance with his physician's recommendations. Therefore, it can be inferred that the spouse may impact the patient's prognosis, but no conclusive evidence is available.

The methodological flaws in the available research prohibit conclusive findings. While generalizations can be made and inferences drawn, the literature does not support either of the research questions posed in this paper. The literature suggests that
there are specific, identifiable problem areas of adjustment experienced by spouses of patients with MI, however this literature is limited to female spouses of male patients. A relationship between the spouses' problem areas of adjustment and the adjustment of the patient to the MI can be inferred from the available literature, but this has not been specifically addressed in existing empirical research studies.

Recommendations

Further Research

The results of this review indicate that research in this field remains preliminary. Further research in this area is warranted and should take a more scientific path. Concrete data obtained from studies that use measurable variables and reliable, valid instruments are needed. More specific findings would be helpful in indentifying spouses and patients who are at risk for adjustment problems that may interfere with recovery, but first psychosocial problems that interfere with recovery must be identified. Studies that include both patients and spouses as subjects could interpret data in a manner that would lead to knowledge about similarities of
adjustment problems in couples.

**Clinical Applications**

The fact that the current research is preliminary does not detract from its potential to be applied to clinical practice. Medical personnel can take heed that while the patient is the focus of attention during the crisis of the MI and the ensuing recovery, the problems of the spouse must also be addressed. Spouses who seem to be having particular difficulty adjusting to their loved one's illness should be referred to mental health professionals for appropriate interventions. Mental health professionals must become aware of the specific problems faced by spouses of patients with MI in order to better serve this population. Hospitals and cardiac rehabilitation centers should consider broadening their focus to include the patient's entire family by employing counselors and social workers and by providing locations for support and self-help groups to meet.

In conclusion, the adjustment and needs of the spouse of a patient with MI must be taken into consideration during all phases of treatment and recovery. The spouse has an impact on the patient's
compliance with physician's recommendations and therefore on the patient's prognosis. The spouse's needs must be identified and met; his or her ability to cope with the crisis in the family must be assessed and if necessary enhanced. A spouse that is well-adjusted is more available to provide support to the patient, thereby aiding a faster, more complete recovery.
References


Bramwell, L. (1984). The relationship of role clarity and empathy to support role performance and anxiety during an illness-wellness


Hilbert, G. K. (1983). The relationship between spouse support and


hemodialysis patients as measured by the Jalowiec Coping Scale. 

Journal of Cardiovascular Nursing, 2, 67-74.

adjustment to breast cancer. Nursing Research, 37, 91-95.

Northouse, L. L., & Swain, M. A. (1987). Adjustment of patients and 
husbands to the initial impact of breast cancer. Nursing Research, 36, 221-225.

Nyamathi, A. M. (1983). An exploration of the coping processes of 
the spouses of myocardial infarction patients. Dissertation Abstracts International, 45/02B, 514.


unit: An analysis of clinical nurse specialist intervention. Heart 
and Lung, 17, 191-198.

system. Postgraduate Medicine, 47(2), 169-174.

Owen, P. R. (1987). Recovery from myocardial infarction: A review 
of psychosocial determinants. Journal of Cardiovascular Nursing.


