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THE LIVED EXPERIENCE OF WOMEN PRIOR TO
HOSPITALIZATION FOR ACUTE MYOCARDIAL INFARCTION

by

Ilamae R. Hughes

A dissertation presented to the
FACULTY OF THE PHILIP Y. HAHN SCHOOL OF NURSING
UNIVERSITY OF SAN DIEGO

In partial fulfillment of the
requirements for the degree
DOCTOR OF NURSING SCIENCE

August, 1997

Dissertation Committee

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ABSTRACT

The Lived Experience of Women Prior To Hospitalization for Acute Myocardial Infarction

Recent research indicates that the majority of women underestimate their risk of developing coronary artery disease (CAD). CAD claims the lives of more women than all forms of cancer; however, women have not received the symptom recognition or treatment that has been accorded to men with CAD. Review of literature indicated a lack of research regarding the experiences of women with acute myocardial infarction (AMI).

This phenomenological study explored the lived experience of women with AMI immediately prior to hospitalization. The lines of inquiry focused on descriptive language regarding pre-event feelings, the symptoms experienced at AMI onset, their response to those symptoms, and the circumstances leading to hospital admission.

Giorgi's method for conducting phenomenological research was employed for data collection and analysis. Twelve women, aged 55 to 80 years of age, consented to participate in taped, unstructured interviews conducted by the investigator. The interview question was: "What were you experiencing that made you feel that you might be having a heart attack?" The participants spontaneously shared their stories in one to two hour interviews which were then transcribed and analyzed.

Three main themes emerged from the data, which included: something is different, the need for care, and the need for voice. Subthemes identified were: reality recognition, caring for self, and facing the professionals. The findings indicated that half the participants described their symptoms using terms included in AMI symptom check lists used in previous studies. Only one quarter of the women identified chest pain as one of their AMI symptoms. Inadequate communication between these women and health professionals was evident. Thus women's AMI symptoms could easily fail to be recognized as significant by an uninformed caregiver. Less delay time in obtaining treatment was reported by those women who had immediately available family support.

Implications of the findings for nursing practice and education were articulated. Further research was recommended regarding development of strategies to decrease CAD risk factors in women, to increase lay and professional knowledge of AMI signs and symptoms in women, and to empower women to better communicate their symptoms and become their own health care advocates.

August, 1997

Ilamae R. Hughes

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DEDICATION

This dissertation is dedicated to my three sons, John, David, and Jeff, who encouraged me to begin and to continue my doctoral education. I also dedicate this dissertation to my mother, sister, and many close women friends for their love and support. My thanks to Geno for his hard work in revising the dissertation format to allow it to be compatible for binding.

I also wish to dedicate this dissertation to the members of my committee who extended themselves in offering direction, suggestions, and support. And, finally I extend gratitude to the twelve women who willingly shared their stories with me, giving essence and direction to this dissertation.

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CHAPTER ONE

FOCUS OF THE STUDY

Coronary artery disease (CAD) has been the leading cause of death among American women since 1908, but was not documented as such. It remained one of the best-kept secrets regarding women's health for over half a century. In 1964, the American Heart Association offered the First Women's Conference on Coronary Heart Disease; however, the conference focused on how to take care of their husbands' hearts and not their own. Twenty-five years later, in 1989, the first conference that dealt specifically with the female heart was held by the American Heart Association. Even then, however, there remained a low level of awareness regarding the devastating effects of heart disease in women (Laurence & Weinhouse, 1994).

Only recently has CAD received recognition as the leading cause of death in women aged 50 and over. The risk of developing CAD increases once a woman becomes menopausal and her production of estrogen tapers (Legato & Colman, 1991). The American Heart Association (1996) states that one in nine women, aged 45-63, have some form of CAD, with the ratio climbing to one in three at 65 years of age and above. In the United States, cardiovascular disease claims the lives of more than 500,387 women annually. In comparison, all forms

of cancer, a disease considered more serious than CAD by most people, kills about 250,529 women annually (American Heart Association, 1996).

As noted by Wenger, Speroff and Packard (1993), women with CAD have a less favorable prognosis than men with the disease. Among women, 46% of all deaths are due to CAD compared to only 40% in men (Eaker, Johnson, Loop, & Wenger, 1992; Eaker, 1993). More women than men die within the first year after an acute myocardial infarction (AMI) and women are twice as likely as men to die within the first few weeks (Hamilton & Seidman, 1993). Wingate (1991) emphasized that women with CAD have a higher proportion of unrecognized AMIs than men, as well as poorer initial survival rates following an AMI.

Despite these statistics, CAD is still considered by most people to be a man's disease and research has primarily been directed toward studying CAD in men. Between ages 40 and 49, men are seven times more likely to develop CAD than women. However, by age 60, CAD becomes an "equal opportunity disease" striking both men and women equally (American Heart Association, 1996).

Over the last decade, sex differences and gender bias related to cardiovascular health have been identified (Ayanian & Epstein, 1991; Bennett, 1993; Hawthorne, 1994; Heston & Lewis, 1992). The lack of attention given to women's potential for developing the disease is now recognized as detrimental to women and their care providers (King & Jensen, 1994). Recent studies of

gender bias and physicians' use of diagnostic and treatment options indicate that women have not been referred as frequently as men for procedures such as cardiac catheterization, angioplasty or coronary artery bypass surgery (Ayanian & Epstein, 1991; Kahn, Nessim, Czer, Chaus, & Martloff, 1990; Steingart et al., 1991; Tobin et al., 1987). Cardiac procedures performed on women have been less successful than those carried out on men, possibly due to treatment delay and heart vessel differences (Legato & Colman, 1991). Many of the tests used to diagnose heart disease in men, such as the exercise treadmill, are less accurate in detecting disease in women due to differences in their physiological functioning (Laurence & Weinhouse, 1994).

Medications specific for CAD treatment have not been properly tested on women (Laurence & Weinhouse, 1994). The majority of CAD studies and clinical trials have excluded women, yet the results have been extrapolated for application to women (King & Jensen, 1994; Wenger, 1990). An example of this is the Physician's Health Study which investigated the use of aspirin as a preventive therapy for CAD in a sample of 22,071 men. Aspirin is presently being prescribed as preventive therapy for women as well as for men. However, because of the study's exclusion of women, it is not known whether the regular use of aspirin helps to prevent CAD in women or whether it harms them (Schroeder, 1992).

Healy (1991) described this gender bias as "The Yentl Syndrome"; that is, women with CAD symptoms have not been given the same attention as men who demonstrate symptoms of CAD. Healy urged that the diseases of women be addressed as different from the diseases of men, but of equal significance. Gender bias is also apparent when physicians frequently misinterpret women's CAD symptoms as psychosomatic in origin and defer treatment (Penckofer & Holm, 1993). Gender bias in the evaluation and management of acute chest pain was studied by Heston and Lewis (1992). They noted that women waited longer than men for the initial physician evaluation and electrocardiogram, resulting in less aggressive treatment for women.

Ageism may also be operative since, according to statistics, women lag at least ten years behind men in developing CAD (American Heart Association, 1996). Most women tend to develop CAD after menopause when estrogen levels decrease. Forty percent of older women discharged from hospitals have a diagnosis of heart disease. When cardiac related studies have included women, those most prone to the disease have been excluded because of their age exceeding the upper age cutoff levels (Conn, Libbus, Thompson, & Kelly, 1994; Young & Kahana, 1993).

The National Institutes of Health (NIH) has acknowledged the lack of research on women's diseases and now requires those submitting grant

applications to justify any decision to exclude women and minorities (Bennett, 1993). The number of quantitative and qualitative studies of women with CAD are slowly increasing. However, at the present time, no phenomenological studies of women's lived experience prior to their documented AMI exist in the literature.

Purpose

Women with AMI appear to present different symptoms than men, but only a few studies have explored this theory (Bayer, Chadha, Farag, & Pathy, 1986; Travis, Gressley, & Phillippi, 1993). Dempsey, Dracup, and Moser's (1995) and Rankin's (1993) recent research suggest that women do present with different AMI symptoms than men. In Rankin's (1993) study, 46% of the women with AMI studied had no chest pain at all and gave primary presenting symptoms of shortness of breath (80%) and epigastric pain (20%). Therefore, women may suffer unduly due to delays in performing diagnostic procedures if providers are unaware of subtle differences in symptomatology between men and women (Rankin, 1993). These findings underscore a need for studies focused on women's self-descriptions of their AMI experience, rather than reliance on profiles developed by physicians and nurses that are based on the male model of heart disease.

Communication patterns and sex role socialization may also be responsible for inequity in treatment of women with CAD and AMI by physicians. Women may not have developed the necessary language to express CAD-related symptoms and feelings, nor the skills required to access the health care system adequately for treatment of CAD (Hawthorne, 1993).

The purpose of this study was to describe the experience of women with CAD immediately prior to hospitalization for AMI. More specifically, this phenomenological study was designed to explore the feelings and symptoms that women experience at the onset of an AMI, the language they use to describe them, and their circumstances and behavioral patterns immediately prior to requiring hospitalization for an AMI.

Assumptions

It is essential that the phenomenological researcher state any assumptions concerning the phenomenon under investigation and then "bracket" them (Oiler, 1986). Bracketing involves the suspension of the researcher's own beliefs and assumptions (Van Manen, 1990). By doing so, the informant's experience is more fully understood and an a priori hypothesis is not imposed on the informant's experience. The assumptions of this researcher which were bracketed during the study included the following:

1. Women experience different cardiac symptoms than men.
2. Women disregard their symptoms and put their own needs last.
3. Women receive less credence than men when presenting symptoms and feelings regarding heart problems to medical personnel.
4. Women do not recognize their own cardiac symptoms, having been led by our culture to expect only men to have cardiac symptoms.
5. Women lack the necessary language to describe their cardiac symptoms in such a way as to get prompt medical attention.

Significance of the Study to Nursing

The paucity of research studies on women with CAD, especially qualitative studies, has left a gap in the knowledge needed for effective, evidenced-based care of women with CAD by professional care providers. Wenger, Speroff, and Packard (1993) noted that women's hearts are smaller than men's hearts and react differently to cardiac treatments; therefore, current research on men cannot be applied to women. The apparent gender bias involved in diagnosis and treatment of women with CAD has specific implications for nursing. Incomplete and/or inaccurate information, based on assumptions extrapolated from studies on men with CAD, can negatively influence nursing management of women cardiac patients.

Hawthorne (1993) noted that a major aspect of the nursing care of CAD patients is the enhancement of the patient's understanding of illness events through providing appropriate information and correction of misconceptions. Increased understanding of the female patient's interpretation of clinical events and how this influences her behavior immediately following an AMI is necessary to increase nursing's knowledge base and provide a sound basis for health education for women regarding CAD. Nurses can play an important role in helping women feel empowered by the knowledge that their symptoms and feelings about the experience of AMI are legitimate and justify prompt and adequate medical attention and appropriate care.

Nurses in advanced practice can utilize this knowledge in screening situations, to verify severity of symptoms and quickly recognize AMI symptoms with need for immediate referral for effective treatment, as well as in all phases of the care of women with CAD. An example of delay in recognition and treatment from this researcher's experience involved a 52 year old woman arriving at the emergency room with atypical AMI symptoms. She was told that it was only an anxiety attack, and advised to return home and take a Valium to relax. Four hours later she returned to the emergency room with a massive myocardial infarction which resulted in extensive heart muscle damage and a long hospital stay. In this and similar cases, faster recognition and treatment of

AMI symptoms in women could decrease damage to the heart muscle and minimize any resulting complications.

In summary, there is a lack of literature regarding the experiences of women with AMI, their differentiating symptoms, and treatment interventions. The lines of inquiry in this study focused on women's pre-event feelings, the symptoms they experienced at the onset of their AMI and their response to those symptoms, as well as exploration of the circumstances immediately prior to their hospital admission.

CHAPTER TWO

REVIEW OF LITERATURE

This chapter provides an overview of current literature relevant to the study of women with AMI. A review was conducted on research studies dating from 1984 to 1997 that focused on the diagnosis and treatment of CAD in both genders. This chapter is divided into sections that address the pre-hospital phase, the post-hospital or recovery phase, age-related research, gender bias in trials and treatment, and the psychosocial aspects pertaining to women experiencing an AMI.

The neglect of women by their exclusion from medical research concerning cardiovascular disease has been noted recently by a number of authors (Hawthorne, 1993; Laurence & Weinhouse, 1994; Pittman & Kirkpatrick, 1994; Wenger, 1992). In recent years, an increased national awareness of women's health issues has developed. Because of a perception that women's health was being treated as a "second-class concern," the Congressional Caucus for Women's Issues, chaired in 1989 by Representatives Patricia Schroeder and Olympia Snowe, began to focus on the dearth of clinical trials on women (Schroeder, 1992). This committee requested the General Accounting Office (GAO) to evaluate the inclusion of women in trials sponsored by the National Institutes of Health (NIH). As a result, funding for the Office of Research

on Women's Health was increased in 1992. Since that time women have been included in federally-funded research study samples, but in smaller proportions than the number of male subjects. However, the results have continued to be generalized equally to both sexes.

Pre-hospital Phase Research

Very few studies have been found in current literature addressing the pre-hospitalization phase in patients of either gender with CAD, in which specific attention was focused on the symptoms, feelings or thoughts, circumstances, and behavioral responses immediately prior to hospitalization for an AMI. Research was done in Sweden by Hartford, Karlson, Sjolín, Holmerg, and Herlitz (1993), which looked at 216 males and 84 females prior to hospitalization for AMI. A questionnaire listing specific symptoms was utilized in this quantitative study. The symptoms included: chest pain, oppression or chest discomfort, arm and jaw pain, fatigue, dyspnea, vertigo, nausea, and cold sweat. The results showed that the responses of both men and women in identifying AMI symptoms were the same. A limitation of this study was the rigidity of the symptom questionnaire, which did not allow for expression of differences in perception of the experience of an AMI between men and women with CAD. If previously accepted male symptom descriptions are the only options available on the data

collection instrument, women may not recognize that their symptoms could vary from men's.

A second study utilizing word descriptors for AMI symptoms was done by Hofgren, Karlson, Gaston-Johansson and Herlitz (1994). This quantitative retrospective study used a verbal scale in a questionnaire containing a large number of sensory and affective pain descriptors, looking at both the frequency of identification as well as intensity. The sensory descriptors were: pressing, aching, cramping, grinding, pricking, burning, pinching, stinging, sore, tearing, cutting, and gnawing. The affective descriptors included: worrying, annoying, tiring, frightening, terrifying, irritating, suffocating, intolerable, torturing, and killing. The proportion of male to female subjects in the convenience sample of 889 was not identified in the report. However, Hofgren et al. (1994) observed that women selected various word descriptors reflecting the emotional component of the experience more frequently than men. Women were found to identify descriptors such as: tiring, frightening, terrifying, and intolerable more frequently than men. The author's conclusion was that women who have experienced an AMI report emotional distress associated with it more readily than men. A limitation of this study was the use of preformed words, rather than eliciting spontaneous descriptive words from the subjects themselves.

In a descriptive, correlational study involving a sample of 55 women without a previous history of heart disease, Warner (1995) questioned each subject following her hospital admission for evaluation of chest pain. A structured inquiry was used to facilitate the identification of the women's symptoms. The Modified Somatic Perception Questionnaire (MSPQ) was used to measure somatic awareness of body activity and physiological functioning. A small inverse correlation was found between the level of somatic awareness and the degree of CAD. Study conclusions were that somatic awareness may be an important factor to consider in evaluating women's awareness and response to myocardial ischemia and chest pain symptoms (Warner, 1995).

Dempsey, Dracup, and Moser (1995) used grounded theory with a semi-structured interview to determine symptom awareness and treatment-seeking delay among 16 women aged 42 to 82 with AMI. These women described symptoms such as chest pain or discomfort; dyspnea and diaphoresis; nausea and/or vomiting; and arm, neck, or back pain. These women did not acknowledge symptom seriousness until after the use of a variety of coping mechanisms and self-treatment behaviors to attempt to maintain control, thus causing delay in seeking early treatment (Dempsey, Dracup, & Moser, 1995).

Post-Hospital Phase Research

A number of studies regarding myocardial infarction have looked at the recovery process and return to work status of men and women with CAD (Chirikos & Nickel, 1984; Froelicher, Kee, Newton, Lindskog, & Livingston, 1994; Johnson & Morse, 1990; Keresztes, Holm, Penckofer, & Merritt, 1993; Shanfield, 1990). Seldom has the representation of women participants equaled the number of male participants in the studies, with the usual ratio being approximately 70% male and 30% female participants.

When examining men and women over the first post AMI year, Young and Kahana (1993) found that women had a greater risk of death, cardiac distress and reinfarction than men. Wenger (1989) and Kannel and Abbott (1987) also noted that women after AMI have a greater risk of stroke, early reinfarction, and cardiac rupture than do men.

Although the number of research studies focusing only on women recovering from an AMI has gradually increased, the majority of this research is still quantitative in nature. Only five (33.3%) of the fifteen research studies reviewed used qualitative methodology. Examples of recent qualitative research that focused on women's recovery from either acute myocardial infarction (AMI) or coronary artery bypass surgery (CABS) include studies by Hawthorne (1993),

Johnson and Morse (1990), and King and Jenson (1994). The results of these and several other studies indicated that women had less favorable outcomes, including higher rates of operative mortality or perioperative infarction, and graft reocclusion following CABS than men. Similar findings regarding less favorable outcomes for women were found in five studies that included both genders (Kahn et al., 1990; Penckofer & Holm, 1993; Rankin, 1990; Murdaugh, 1990; Sharpe, Clark, & Janz, 1991).

Age-Related Research

Women over 55 years of age have a tenfold increase in CAD incidence compared with men (American Heart Association, 1996). Functional impairment or disability in older women with heart disease is substantially higher than in men with the same disease (Chirikos & Nickel, 1984). In addition, women have a higher number of readmissions than men after discharge from the hospital (Vavaro, 1991; Wenger, Speroff, & Packard, 1993). Dittrich et al. (1988) studied 2,089 patients (1,551 men, 538 women) for one year after AMI and found that women had a higher mortality rate (17.5%) compared to men (12.3%). Since the women were an average of seven years older than the men, their higher mortality rate was possibly due to their greater age (Dittrich et al., 1988).

Increasing age was found to be associated with a change in the presentation of AMI symptoms in a study by Bayer, Chadra, Farag, and Pathy

(1986). The research sample consisted of 777 elderly hospitalized male and female patients ranging in age from 65 to 100 with a mean age of 76 years. Shortness of breath (dyspnea) was found to be equally common at all ages. However, chest pain or chest discomfort were less frequently reported with increasing age, while symptoms of syncope, stroke, and acute confusion became more common. The researchers concluded that "atypical" symptom presentation for AMI was the rule in the older CAD patient. However, no distinction between male and female patients was made in the report of the research findings. Inclusion of this information would have increased the value of the study.

Young and Kahana (1993) suggested that the greater vulnerability of older women to serious complications during the first year after an AMI may be partially due to differences in their medical care and their social disadvantages. In clinical trials of medications used in the treatment of AMI, investigators have frequently used age-based exclusions. This has resulted in the inability to generalize study findings to the very patient population that experiences the most morbidity and mortality from AMI (Gurwitz, Col, & Avorn, 1992). In 1989, the Food and Drug Administration issued recommendations stating that there was no good basis for the exclusion of patients of advanced age from medication trials (Gurwitz, Col, & Avorn, 1992). This has now started to change the way

research is done and older women have been included in recent osteoporosis and estrogen/heart disease trials sponsored by drug manufacturers.

The increasing expense of caring for growing numbers of older individuals can produce strong incentives for rationing publicly-funded health care based on age (Jecker, 1991). Women are disproportionately represented in the elderly population due to outliving men by 7.5 years. According to Jecker (1991), age-based rationing would compound the injustices that women already suffer as a consequence of unquestioned assumptions and policies which have frequently neglected women's health needs.

Gender Bias in Trials and Treatment

Gender bias has been prevalent in coronary artery disease drug and treatment trials because of the complete exclusion of women or the inclusion of insignificant numbers of women, with the results being generalized equally to both sexes (Laurence & Weinhouse, 1994; Tobin, 1993; Wenger, 1992). Gender and age-based exclusions are frequently used in clinical trials of AMI medications. In a systematic literature search of drug trials from 1960 to 1991, Gurwitz, Col, and Avorn (1992) found that fewer than 20% of the randomized trial subjects were women. As noted by Wenger (1992), most therapeutic decisions for women with CAD have been extrapolated from studies conducted predominately among middle-aged men. Angell (1993) stated that women have

been discriminated against over the years in the following ways: diseases that affect them disproportionately are less likely to be studied; and women are less likely to be included as participants in clinical trials.

Gender bias has also been evident in the medical management of AMI in women. Heston and Lewis (1992) conducted a record review to determine if there was a gender-related difference in the evaluation and management of emergency room patients with myocardial infarction or unstable angina. These researchers reviewed the initial treatment of 445 patients over 35 years of age arriving with nontraumatic, nonpleuritic chest pain at ten metropolitan emergency departments. Their sample was comprised of 199 men and 246 women who were seen by 96 different physicians. The women were an average of 5 years older than the men, and they waited longer than the men for their initial physician evaluation and electrocardiogram. Although the women had similar risk factors (and in some cases, prior cardiac disease) they were evaluated and managed less aggressively and admitted to an intensive care unit less frequently than were men.

Bickell et al.(1992) noted that men were more likely to be referred for surgery when surgery offered the least survival benefit relative to medical therapy. These researchers further stated that there appeared to be no gender difference in surgical referral among patients with a likelihood of improved

survival with surgery. In contrast, Krumholz, Douglas, Lauer, and Pasternak (1992) concluded, from a retrospective cohort study of 2473 consecutive patients diagnosed with AMI, that some treatment differences based on gender continue to be reported for coronary angiography and bypass surgery.

Other studies indicating gender bias in treatment and management for women with CAD were done by Ayanian and Epstein (1991) and Steingart et al. (1991). Retrospective analyses of coronary angiography and revascularization (coronary-artery bypass surgery or angioplasty) procedures were used by Ayanian and Epstein (1991) to determine the treatment differences between men and women with CAD in Massachusetts. Multiple logistic regression was used to estimate the adjusted odds for procedure use based on abstract data regarding 49,623 Massachusetts hospital discharges. The results showed a 28% higher use of angiography and a 45% higher use of revascularization in men as compared to women.

Steingart et al. (1991) compared the care previously received by 1842 men and 389 women who were enrolled in a large postinfarction intervention trial. Despite reports by women of symptoms consistent with increased functional disability from angina, only half as many of the women had undergone angiography or coronary bypass surgery compared to the men in the sample. Angiography was done on 15.4% of women versus 27.3% of men and coronary

bypass surgery was done on 5.9% of women versus 12.7% of men. These studies showed that physicians generally pursued a less aggressive management approach to CAD in women, using fewer diagnostic and therapeutic procedures than they used in treating men.

Noninvasive treatments, such as thrombolytic therapy for myocardial infarction, have also been underutilized for eligible women with AMI (Maynard, Althouse, Cerqueira, Olsufka, & Kennedy, 1991). Hsia (1993) observed that, during an AMI, women wait longer than men before seeking medical attention, are less likely to be eligible for thrombolytic therapy and, if eligible, are less likely to receive thrombolytic agents. Of the 1,078 subjects in the Western Washington Trial that included eight hospitals in the Seattle-Tacoma area, 55% of the eligible women actually received thrombolysis compared with 78% of the eligible men (Hsia, 1993).

A large study of 2,924 men and 1,838 women with validated AMI in 16 Massachusetts hospitals was done by Chiriboga et al. (1993) from a community-wide perspective that systematically examined gender differences in the management and diagnostic workup of AMI. Their results indicated that men were more likely to undergo Holter monitoring, exercise treadmill testing, coronary angiography, and percutaneous transluminal coronary angioplasty (PTCA) than women. Based on these findings, Chiriboga et al. (1993) proposed

that residual gender differences in the use of diagnostic procedures may be the result of physicians viewing CAD as more severe in men than in women.

Psychosocial Aspects of AMI

Older women will continue to outnumber older men in the coming years by three to one. It has been said that being old, female, and poor is a "triple jeopardy" for women (Dimond, 1993). In research done by Friedman (1993) to investigate the relationship between social support and psychological well-being in older women with heart disease, a test of a compensatory hierarchical model of social support sources was administered to a sample of 80 older women. The older women selected support from a hierarchy of relationships, starting with a spouse and then with children, prior to selecting nonfamily members to meet supportive needs. The study findings indicated lower positive effects and less satisfaction with life when support had to be derived from nonfamily members. Friedman (1993) concluded that individuals lacking emotional or tangible support from family members may become more vulnerable to reduced psychological well-being.

A qualitative, descriptive study by Conn, Libbus, Thompson, and Kelley (1994) queried 30 older adult women regarding heart disease and their beliefs about preventive behaviors. The primary social group of family, rather than neighbors or friends, was found to be the most important referent for health-

related behavior among older women (Conn et al., 1994). Cronin, Logsdon, and Miracle (1997)—in a descriptive, longitudinal study of 26 white married women with an average age of 60.5 years, and with 10 years of education—found that social support was a significant factor in these women's psychosocial adjustment to CAD. Rankin (1990) compared physical and psychosocial outcomes in 93 men and 24 women after cardiac surgery. She noted that women demonstrated a relatively poor adjustment to both MI and CABS when compared to men, due in part to less social support. The findings from these studies underscore the significant role that social support, especially from family, plays in the older woman's health profile. However, as women age, they often face the dilemma of having fewer available family members left to offer the support that they need.

Synopsis of the Literature

The review of the literature revealed that women in both the pre- and post-hospitalization phase of AMI are not receiving the same attention from health care providers and researchers as men with this disease. The majority of the research described in the literature was quantitative, and many of the guidelines appeared to have been derived from suppositions developed from male CAD studies. In most of the studies involving both genders, the sample sizes of women diagnosed with CAD were significantly smaller than those of men, thus affecting the research outcomes and the generalizations that can be validly

drawn from them. Age barriers affecting women's treatment were noted frequently in literature.

Women with AMIs have not been sufficiently studied, using qualitative research methods, in areas pertaining to their perceived symptoms, feelings, and actions prior to hospitalization. The majority of research studies still explore CAD in women using male standards due to the lack of sufficient research verifying women's reactions to AMI, as well as the past tendency to group together male and female CAD participants in research statistics. The quantitative research studies cited in the literature review have many limitations, especially the failure to allow women's voices to be heard regarding their AMI experiences. Two qualitative research studies, using grounded theory, have increased the general knowledge of women's responses during and following an AMI (Dempsey, Dracup, & Moser, 1995; Rankin, 1995).

However, none of these previous studies addressed the meaning of the AMI experience to women. In fact, no phenomenological studies were found in literature, either for men or women, that reflected their actual AMI experience. Therefore, this study was conducted to elicit and tell the stories of older women experiencing AMI, focusing on the time period immediately prior their to obtaining care at a hospital.

CHAPTER 3

METHOD

Following an overview of the phenomenological method, this chapter focuses on Giorgi's method. The goal of Giorgi's method is to describe the essence of the lived experience according to the participants' perceptions (Giorgi, 1975, 1985). The merits of utilizing qualitative research methods, such as phenomenology, to increase nursing knowledge have been noted in nursing literature, and phenomenology has been described as a viable and valuable qualitative methodology for exploring human phenomena (Benner, 1985; Bergum, 1991; Boyd, 1993; Knaack, 1984; Leininger, 1985; Munhall, 1989; Oiler, 1986; Omery, 1983; Parse, Coyne & Smith, 1985; Swanson-Kauffman & Schowald, 1988). The advantages of phenomenological research are described by Pallikkathayil and Morgan (1991) as the richness of the data gathered and a deeper understanding of the structure of the lived experience.

Phenomenological Method

The roots of phenomenology can be traced back to the philosopher, Edmund Husserl, who expressed concern with the positivist approach to studying human phenomenon. Husserl advocated a philosophy which allowed the phenomenon to be seen and experienced as it was lived (Cohen, 1987; Omery, 1983).

Husserl (1913/1982) emphasized that the phenomenological researcher must hold all received knowledge and assumptions in abeyance, and take

nothing for granted, thus having no suppositions regarding the phenomena under investigation.

Martin Heidegger (1962) refined Husserl's ideas and advocated beginning with the meaning of "being," questioning Husserl's assumption that "being" correlated with "consciousness." He used the term "dasein" to reflect being as existence in the world and not merely as an object. Heidegger (1962) endorsed hermeneutics, the analysis of language, as the method by which unity of meaning is acquired through interpretation.

Maurice Merleau-Ponty (1962), a French phenomenologist, asserted that the world is not perceived through a combination of sensations and perspectives, but that the focus on human involvement in phenomenology is termed "lived experience." Several styles of phenomenological research resulted from the work of the original phenomenologists, such as the methodologies of Colaizzi (1978), Giorgi (1967, 1975, 1985, 1992); Spiegelberg (1965, 1982); Van Kaam (1966), and Van Manen (1984, 1990). Capturing the essence of the phenomenon through study of the lived experience has been a common goal of these various phenomenologists.

According to Amedeo Giorgi (1985), phenomenological research starts with a description of the experience under study. The researcher is required to let the experience unfold in an unbiased way as it exists for the subject, without clarifying interruptions. Giorgi's method uses small sample sizes and lengthy

data-gathering interviews (Giorgi, 1985). The focus is on uncovering the meaning of lived experiences by interviewing the subject and then carrying out the following process: identification of the natural meaning units, identification of themes, identification of focal meanings and elimination of redundancies, synthesis of situated structural descriptions, and synthesis of a general structural description which can be communicated to other researchers for confirmation and/or criticism (Giorgi, 1985; Omery, 1983).

A comparison was made between the phenomenological methods used by Colazzi, Van Kaam, and Giorgi. While similarities were found, several variations noted were the written descriptions and interview guide used by Van Kaam and the use of two interviews by Colazzi to obtain data. Giorgi's method was chosen as the best fit for the conduct of this research because the experience that is the focus of the study is allowed to unfold as it existed for the participant in the most unbiased way; that is, the description was to be the true experience of the woman and any helpful direction by the researcher was discouraged. Van Kaam and Colazzi both used larger sample sizes, but Giorgi insisted on using a small sample size due to the length and detail of the interview. Instead of the line by line analysis used by Colazzi, Giorgi encourages the researcher to reflect at length on the interview transcription prior to recognition of themes and subthemes and data analysis.

Conduct of the Study

Participant Selection

The participants for this phenomenological study consisted of twelve women between the ages of 55 and 80 years of age, who were within four to eight weeks of discharge following hospitalization for a documented AMI. Participants were selected from five private cardiology group practices in a large metropolitan area in the Southwestern region of the United States. Permission to interview each participant was obtained verbally from her physician.

The following participant selection criteria were used. Each participant:

1. Had experienced an uncomplicated first AMI requiring hospitalization.
2. Was fluent in speaking, reading, and writing English.
3. Had the potential ability to tolerate a one to two hour interview without tiring, as evidenced by absence of symptoms of shortness of breath, inattention, or complaint of chest discomfort.
4. Was post-menopausal and between 55 to 80 years of age (the stage in life when women are more susceptible to an AMI occurrence according to American Heart Association statistics).

The demographic characteristics of the participants included a mean age of 71.6 years. Eleven of the participants were caucasian and one was Hispanic. Three women were employed at the time of the AMI, while the other nine were retired. Half of the participants were married, while five were widowed and one

was divorced. Nine participants had co-existing diseases, and seven participants had heart disease history in their immediate family. The education level of the participants ranged from the completion of tenth grade to the attainment of a master's degree. Appendix A contains vignettes describing each individual participant and a table summarizing participant characteristics.

Data Collection

The twelve interviews were conducted over the course of 16 months with each interview occurring approximately 4 to 8 weeks following the participant's hospitalization for AMI. Ten of the interviews took place in the participant's home, while two took place in a neutral setting (one in a quiet restaurant during non-busy hours and one in a hospital outpatient courtyard). The rationale for selecting an interview site other than an inpatient healthcare setting was to provide for a relaxed, stress-free, and uninterrupted interview. Informed consent (see Appendix C) was obtained from the participant before the interview began. A brief demographic questionnaire (see Appendix D) was then completed to obtain information regarding age, race, education, co-existing diseases, and family heart history. Each interview was conducted and audiotaped by the researcher.

The interview focused on the experience of the participant during the period of time immediately prior to hospitalization for her AMI. The interview began with the statement: "Tell me what you were experiencing that made you

feel that you might be having a heart attack?" Each participant was encouraged to freely express her thoughts and feelings as she described her experience. The participant was observed during the interview for any expressive or nonverbal cues. The average duration of the interviews was 1 1/2 hours. The interview length depended on each participant's response. The shortest interview occurred at a restaurant and lasted 50 minutes due to the participant's limited time frame. The longest interview was 2 1/2 hours in duration and was prolonged by the participant insisting on providing a small meal to the researcher during the interview. The interviews lasted until no new themes appeared and saturation was reached.

The information shared by the participants emerged naturally from each participant's experience without direct solicitation other than the initial question. Some participants were more vocal and explicit than others in describing their lived experience but all showed an eagerness to share their stories.

The participant's information was verified by repeating a synopsis of the information back to the participant at the end of the interview. The participant then validated whether the researcher had understood her correctly or not. Each participant was encouraged to phone the researcher following her interview if she had additional information she may have forgotten to include previously. Three participants did call with further remembrances and minor additions. Adjustments were then made to their interview transcriptions by the researcher.

In addition, the interview information was double-checked for transcription accuracy using line-by-line comparison of the transcribed interviews with the audiotapes.

Data Analysis

Following the bracketing of personal beliefs held by the researcher, the empirical aspect of a phenomenological study involves the rigorous gathering and analyzing of the interview data. This researcher's bracketed personal beliefs and assumptions that could have influenced the study were delineated in Chapter One (p. 6).

The technique used to generate data was an unstructured interview, relying on the participant's life experiences expressed through genuine dialogue, which can be spoken or silent (and noted by observation). Ray (1990) noted that the essential element of genuine dialogue is seeing the other or experiencing the other side. During the interview, the prior knowledge of the researcher is bracketed. At a later date, the bracketed knowledge can be unbracketed and considered as it relates to the study as a whole (Ray, 1990).

The following data analysis steps based on Giorgi's (1975) procedure for data analysis, as interpreted by Pallikkathayil and Morgan(1991) and Omery (1983), were utilized by the researcher.

First, the entire transcript was read to get a sense of the whole and then re-read to identify themes. Next, the themes were examined for redundancies,

clarification, or elaboration by relating the themes to each other and to the whole. The researcher then reflected on the themes and extrapolated the essence of the experience for each subject. The concrete language from the transcripts was transformed into abstract and conceptual language (i.e. the labels for themes and subthemes). Finally, these insights were integrated and synthesized into a descriptive structure which was then used to organize the presentation and discussion of the findings. The dissertation committee members were asked to serve as a panel to review the synthesis of the data as analyzed by Giorgi's (1985) method.

Methodological Rigor

The three most frequently used phenomenological methods in nursing research are those of Colaizzi (1978), Giorgi (1985), and Van Kaam (1966). Each of these phenomenologists proposes different criteria for assessment of the reliability and validity (methodological rigor) of phenomenological analysis. Colaizzi calls for a final validation to be achieved by returning to each participant. Van Kaam requires that intersubjective agreement be reached with other expert judges. In contrast to both of these phenomenological methods, Giorgi's analysis relies solely on the researcher, without using judges or validators of the findings (Beck, 1994). In this study methodological rigor was maintained by thorough data collection, accurate observations, and indepth interviews following the steps outlined by Lincoln and Guba (1985).

Trustworthiness

Lincoln and Guba (1985) note that the trustworthiness in qualitative research is equally as important as it is in quantitative studies. Lincoln and Guba (1985) emphasize that trustworthiness is established in relation to four factors: truth value or creditibility, applicability or transferability, consistency or dependability, and neutrality or confirmability. These terms evoke criteria for methodological rigor parallel to the criteria of "internal validity," "external validity," "reliability," and "objectivity" in quantitative research.

Credibility

Credibility provides a means to meet the criteria of trustworthiness and demonstrates the truth value of a study (Lincoln & Guba, 1985). Credibility or truth value is subject-oriented, rather than researcher-defined, and relates to the human experiences as they are lived and perceived by the subjects. Truth value was assured in this study through accurate transcription followed by comparison of the transcription with the participants' recorded words describing their lived experience. Activities that increased the probability of high credibility were prolonged engagement and persistent observation. In addition to the conduction of indepth interviews, the researcher has had many years of experience as a specialist in the care of patients in the initial phase of AML.

Applicability

Applicability or transferability refers to fittingness; that is, when a study's findings "fit" into contexts outside the study situation and when its audience is able to view the findings as meaningful and applicable in relation to their own experiences. In other words, the findings of the study in the form of description, explanation, or theory, "fit" the data they are derived from and are well-grounded in the life experiences that are studied (Sandelowski, 1986). In this study, validation obtained from the women during the interviews provided assurance of applicability. For example, the findings from this study could be used in patient education for women of ages and circumstances similar to the participants.

Consistency

Consistency or dependability is proposed by Lincoln and Guba (1985) to be the criterion of rigor relating to the consistency of qualitative findings. For example, a study and its findings are considered consistent when another researcher is able to clearly follow the researcher's decision trail for the study (Morse, 1991). Consistency is demonstrated in the research report and can be achieved by explanation of the following: how the researcher views the subject matter and became interested in studying it, the specific purpose of the study, how the data were collected and how long the data collection lasted, the nature of the setting where the data were collected and the impact the subjects and researcher had on each other, as well as how the data were reduced for analysis, interpretation, and presentation (Miles & Huberman, 1984).

Consistency is particularly important because there can be no exact replication of the study; however, a future study could possibly result in the emergence of similar themes (Brink, 1991; Sandelowski, 1986). Consistency was achieved in this study by carefully delineating and carrying through the aspects of consistency stated by Miles and Huberman (1984) throughout the study and by careful and accurate transcriptions of the women's stories.

Neutrality

According to Lincoln and Guba (1985), neutrality refers to freedom from bias in the research process. They further suggest that confirmability is the criterion of neutrality in qualitative research. Confirmability is achieved when truth value, applicability, and consistency are established and refers to the findings themselves, not to the subjective or objective stance of the researcher (Guba & Lincoln, 1981).

In summary, trustworthiness was achieved in this study by meeting the criteria for credibility, applicability, consistency, and neutrality as delineated by Lincoln and Guba (1985) and by Miles and Huberman (1984). Trustworthiness is a matter of concern to the consumer of qualitative research reports; however, it remains for the consumer to identify that the presentation of this research is indeed worthy of confidence (Lincoln & Guba, 1985).

Ethical Considerations

Prior to initiating the study, approval was obtained from the University of San Diego Committee for the Protection of Human Subjects. Ethical considerations for this study began with obtaining informed consent, (see Appendix C), providing the freedom to withdraw from the study at any time, and disclosing any inherent risks to the participant. The purpose of the study was noted, each participant was given an opportunity to ask questions, and the consent form was reviewed and signed prior to the interview.

Ethical considerations for this study also included the confidential handling of the information obtained from the participants. Ethical conduct on the part of this researcher involved respecting the privacy rights of the participants regarding the information divulged in the interview. Prior to each interview, assurance was given to the participants regarding their anonymity in the presentation of the research findings. Pseudonyms were used in the final report to protect participants' identities. Also, participants were assured that the audiotapes were secured in a locked cabinet, accessible only to the researcher, and would be destroyed following completion of the study.

Additional ethical considerations that presented in the conduct of this study included the possible impact of reliving the experience on the participant's present condition. This researcher had no desire to upset the participants or retard the healing process by the arousal of unpleasant memories and feelings. If a participant had at any time become distressed or appeared to have an

increased heart rate, a simple relaxation breathing exercise would have been encouraged. If the participant had experienced chest pain, she would have been encouraged to use her medication (e.g., sublingual Nitroglycerin) as prescribed by her physician and the interview would have been interrupted or terminated and resumed at another time, unless contraindicated. However, no interviews for this study had to be curtailed because of untoward emotional or physical reactions.

Swanson-Kauffman and Schonwald, (1988) point out that bracketing is also considered an essential way to fulfill the ethical dictum to accurately portray the reality of the phenomenon as it is lived and described by the study participants. Bracketing of this researcher's assumptions was noted in Chapter One (p. 6).

Summary

Phenomenological research has been discussed in this chapter with emphasis on Giorgi's method for data analysis. The appropriateness of qualitative methodology, specifically phenomenology, for exploring the lived experience of women prior to hospitalization for AMI was delineated. A description of the participants, criteria for inclusion in the sample and the mode of participant selection were clarified. Descriptions of data collection and analysis procedures were included. Also outlined were the means taken to maintain

methodological rigor in the study. Finally, ethical considerations and protection of human subjects were discussed.

CHAPTER FOUR

FINDINGS

This chapter presents the theme constituents of the phenomenon of women's experience of a myocardial infarction. For this study, the question of import was "What is the lived experience of women prior to hospitalization for myocardial infarction." The stories told by the participants about their thoughts and feelings, the actual experiencing of the myocardial infarction, and their subsequent reaction to the event can provide some understanding about their lived experience prior to hospitalization for an AMI. The themes presented in this chapter emerged from the unfolding experiences as recalled by the participants. These themes are supported by selected quotations derived from the participant interviews. Descriptions of observed body language are interwoven with the participant's verbal retelling of her experience. Each participant was given a fictitious name to preserve her privacy.

Experiencing the phenomenon of a myocardial infarction was not identical for each participant but there were commonalities within their stories. Three major themes: something is different, the need for care, and the need for voice emerged from the interviews and subsequent themes and subthemes were derived from the analysis of the transcripts (refer to Figure I, p. 39).

Something is Different

Interwoven into the first major theme, "something is different", were the physical reactions, verbal responses, and non-verbal responses of each

Figure 1: Experiencing the Phenomenon of a Myocardial Infarction

participant.

The initial recognition by the participants that something different was occurring included both physical symptoms and cognitive and emotional responses to the phenomenon of a myocardial infarction. All of the participants were able to express their perceptions articulately and in detail. As the participants talked in the interviews, the lived experience remained fresh in their minds as evidenced by their facial expressions, verbal tone, and general body language.

Only two of the twelve participants portrayed their experience as one fitting the classic picture of myocardial infarction described in medical textbooks. Their experiences were described as follows: Emma experienced shortness of breath combined with a "heavy hard chest pain or pressure" which did not radiate down either arm; while Irma recalled that she had "these pains in my chest that just wouldn't go away."

As the interviews progressed, it became apparent that many of the other participants noted upper back pain and/or right arm pain, creating a common thread of experience that did not fit the classic AMI textbook picture of chest pain radiating to the left arm. The participants who recounted a mixture of classic and nonclassic symptom descriptions often made reference to back discomfort as well. One participant, Helen, recalled her experience as follows:

It was an intense ache in my throat, the feeling one gets when one is about to cry and kind of holding it back. It traveled down and stopped. Four months later we were

having a heat spell and I was very stressed about some personal issues but still trying to keep my appointments going. It started again in my throat and this time went down behind my sternum and my heart fluttered. One week later it started getting worse, lasting longer and the ache was more intense but it wasn't anything I couldn't handle. Then a few days later I had pain that went all the way through to my backbone and up into my teeth and this didn't go away.

As Helen continued the interview she became angry and expressed the following in a strong voice, while holding herself in a very erect posture:

I was never scared, I was angry that this was interrupting my lifestyle. I felt I had things to do, that this was in the way.

Another participant, Kate, emphatically remembered:

I felt like I had a ton of weight on my chest....
I could hardly breathe. I had a deep ache all the way through to my back. I just wanted to get the load off my back. I couldn't believe my arms could be that heavy. I didn't want to lift them or anything.

There was a note of disbelief in Kate's voice as she retold her story. Her hands were in constant motion during the interview.

Some participants remembered family telling them they looked "white as a ghost" or feeling very hot. Irma noted the following:

I had a hard time breathing and there was a sharp pain across the chest that wouldn't let up. My friends said I was white as a ghost. I was freezing, really cold.

Irma clasped her hands and hunched her shoulders as she retold her story, as if she remembered how cold she felt when experiencing the

myocardial infarction.

Janet was also told she was "white as a ghost" but she was not feeling any coldness as Irma did, but rather was feeling "very, very hot." Gloria, as well, felt heat and described her experience in the following way:

I had this sharp pain in my back, like a knife stabbing me. I was taking big breaths. My head was hurting and the Tylenol didn't help. I was getting cramps and tingling in my feet during this time. It was only 8:30 pm but I got into my pajamas and flopped on the bed...I was really uncomfortable. I don't think I was in bed three minutes when I just started burning from the inside out, a very deep heat, and then started perspiring.

As this participant continued to talk she began to perspire and started to talk faster and in a higher pitch. She stated "it all still seemed unreal" to her.

Several participants were exercising when they became aware that something felt different or was unusual. Alice, in her normal daily routine, was walking with her husband around the shopping mall early in the morning.

We were walking near Target at the shopping center. I suddenly had pain in my lungs, and I thought that there was something wrong. I didn't think it was anything serious. It was in both sides of my lungs. I didn't feel any pressure on my chest, I just had pain breathing. We were going into Target to shop and I suppose I was getting worse because as soon as we got in I looked around for a chair to sit on and couldn't find one.

This participant was a small, composed woman who was initially calm, but became excited retelling her story. Her voice took on a strong, adamant tone as she talked about her admission to the emergency room after leaving Target

by ambulance.

The doctor kept asking me where the pressure was going, was I saying it went down my left arm or up into my neck. I kept repeating that "No, all I have is pain with breathing and pain in my back." He asked me the same question three times.

Another participant, Carol, had also been exercising and had just come home from taking her dog for a long walk around the neighborhood when she became very fatigued.

I was getting weak spells and indigestion about two weeks before the heart attack, but I didn't think much about it. Then I started having pain in the back of my neck and my right arm ached. That's what threw me off. I figured my heart was on my left side...and that the pain should be there but it wasn't. I had walked the dog and could hardly get back, I had such bad pain.

As Carol talked, presenting her story in a factual way, her voice tone was calm but became higher pitched and more strident as the interview progressed. She expressed frustration with her HMO, noting that her husband had called twice for a physician appointment and a request for tests, following her initial pain episode after walking the dog.

Prior activity also appeared to play a part for Dee. She eloquently described her experience:

I was awakened in the middle of the night by hearing my neighbor upstairs falling on the floor. I could hear her moaning. I got some clothes on and ran up the stairs but I couldn't get into her room. I came back down to my apartment and

tried to phone her but didn't get an answer. I went back up again. I was getting out of breath, getting very stressed out. I started having maybe some indigestion or a little chest pain...it went all the way through to between my shoulder blades. I never felt this way before, it kept hurting. It also went up both sides of my neck into my ears. I kept thinking, just what is this? Why doesn't it go away?

Frustration, as well as anger, was noted in Dee's voice as she retold her story. At times, she was wringing her hands when she told of her frustration because of her inability to find help for her upstairs neighbor, feeling a responsibility for her.

For some participants, various situations or settings became a dominant factor as they recalled their experience of the event. When asked to explain more about her experience, Janet recalled:

I was walking a couple of blocks to the dentist when I felt funny, detached, out of focus...but no shortness of breath. A few days later I was bending up and down putting cards on the shop shelves with my daughter. I said, "I just feel like I have indigestion, I'm going to see if I have a Rolaid." It felt like heartburn, right at the base of the neck at the top of the sternum. Not pressure, but burning like after eating Italian food. I went over to get a Rolaid and then came back and told her, "I don't feel too good, I'm going in the back room." All of a sudden I was very sick to my stomach...I was immediately weak, just didn't have any strength. My daughter came back and said "Mom, you are so white." I was very hot, so I asked her to open the back door and throw some water on me. I never did have any chest pain.

As this participant told her story, she became visibly more angry as evidenced by her stiff posture, rigid shoulders and unsmiling face. Her eyes flashed and her

voice became stronger as she related her interpretation of events. Janet twice stated the following:

I never thought I was having a heart attack, it never went through my mind. I didn't have a clue. When I started that day, I thought I just had heartburn, that was all.

The initial feeling of "something being different" in her life occurred for Fern, another participant, when she had gone for her usual weekly visit to the diabetes clinic for blood sugar levels:

I went to sign in at the clinic and all of a sudden I didn't feel good. There was a pressure but no pain in my chest. They did blood tests and sent me home with Nitroglycerin pills. It must have been three to four days later when I was in the grocery store, going down the vegetable aisle when all of a sudden I didn't feel good. I thought maybe I'd better sit down and take one of those pills. I'd never taken them before and thought I needed to take them with water. I went to the delicatessen and asked for some water. Then I really got sick. It just hit me. I felt pressure, right where a man ties his tie. I didn't have pain, just an uncomfortable feeling and was sick to my stomach. I have never been so sick in my life and then I guess I blacked out.

Fern's non-verbal response during the retelling of her story was anxiety and disbelief, as shown by hand movements and voice tone. Anger towards a healthcare institution, expressed verbally and non-verbally, was prominent in Emma's interview. Emma had had hip surgery and was expecting to leave the rehabilitation unit the following day when she developed a heavy midsternal pain. Emma, much like Carol whose experience was previously discussed, became irritated with the disbelief and inaction shown by health professionals

after notifying them that "something was different." As Emma shared her experience, her facial color heightened and her expression became one of disgust and anger as she told her story:

It was around ten o'clock at night. I rang and rang for the nurse, and then she finally came. I told her I had hard chest pain and she tried to placate me saying, "No, it's alright." I asked for medication and she said, "We can't give you that." I was upset and didn't think they were going to do anything, so I called my husband and daughter to come over to help me.

Emma desperately needed someone to listen to her concerns and take action.

She felt that her family would try to reach her physician if the nurse wouldn't take her seriously.

Several participants described an initial feeling of vagueness such as "losing it" or "drifting away." Bonnie used descriptions such as "felt different...was restless...felt like I was just drifting away" as she related her experience. She noted the following:

I always thought you had pain and all that but there was no pain, it was just different.

As her story progressed, Bonnie appeared to become depressed, talking in a low, flat tone of voice and exhibiting a slumped, listless posture. In contrast, Lois described her experience in a very succinct way and matter of fact tone of voice:

It didn't hurt, I didn't have any pain whatsoever, just my chest felt full ... and

I felt like I was kind of losing it.

Each participant exhibited her individual body language response to the retelling of the event. Many were observed placing a hand over the affected body part. Those starting the interview calmly often became animated or upset as the story progressed. A few of those who began with anger appeared to become less agitated with the retelling of their story. Some of the participants continued to express their anger verbally and nonverbally, expressing disbelief that they had experienced a myocardial infarction.

Of interest was the fact that the information shared by the participants seemed to emerge naturally from each participant's experience. Some participants were more vocal and explicit in describing their lived experience but all showed eagerness to share their stories. No interviews had to be curtailed because of untoward emotional or physical reactions.

The Need for Care

The need for care was perceived by the participants in a variety of ways. The key themes which emerged were: reality recognition and caring for self. The subthemes under reality recognition were: this is not anything, and oh, yes it is. Subthemes under caring for self included: seeking self care alternatives, and using traditional pathways of care.

Reality Recognition

The participants' stories reflect their initial disbelief that they were experiencing a serious threat to their health and well-being. Some indicated that

they quickly realized the need for immediate care. However, the majority of the participants did not seek care until a period of time had elapsed. The time periods reported before seeking help ranged from one to six hours.

This is not anything

Three participants used the word "denial" in describing their experience during the interview. One participant, Janet, stated three times that there was nothing seriously wrong with her heart. Another participant, Carol, declared that "heart attacks affected the men in our family and not the women, the women did not have heart attacks."

"I never did feel like I was having a heart attack, I didn't have a clue" were the first words spoken by Janet as the interview began. "When I started work that day, I thought I had heartburn and it never went through my mind I was having a heart attack," she continued. Another participant, Lois, stated that she developed a "kind of cold sweat but I didn't think anything of it ... I had no idea it was my heart. I was getting ready to go to the dentist. After an hour I decided I couldn't go because I couldn't stop sweating."

In attempting to describe her experience, Gloria recalled thinking that she was having sinus problems again or was having some pleurisy as she had experienced in the past.

I've had symptoms of pleurisy and bursitis
in my elbow that didn't amount to much. I
don't go to the doctor often. With the pleurisy
I felt dull pain in the back, and once in a

while some chest discomfort. I had trouble breathing and walked outside the back door at work to take in deep breaths. I thought it was my sinus or walking pneumonia.

Alice also felt that she had a problem with her lungs and not her heart. Alice and her husband were avid mall walkers and felt they were in good health for their age. The development of pain with breathing was unexpected for Alice:

I told my husband, "There is something wrong with my lungs, I've got this pain in my lungs." It never dawned on me that it was my heart, I thought it was my lungs because it hurt to breathe. If I had thought that I'd had a heart problem I probably would have gone to the car, because I didn't want to go to the hospital. You see, I was in denial, I was going to go on shopping in spite of what was happening.

Alice had no history of heart disease in her family and had not considered that there was a possibility of her lung discomfort being connected to symptoms of AMI.

Disbelief that what they were experiencing could be a major problem was voiced by six other participants. One participant, Fern, noted chest pressure while attending the diabetes clinic but she didn't attach much importance to the symptoms, as noted by her words:

I had spells most of my life where I'd get sick but it was caused mostly from liver problems... so I thought that was what was happening. Nothing worse.

Disbelief that there was a serious heart problem involved was expressed by several participants who related their symptoms to another part of the body.

Helen, even as a nurse, felt that she overlooked some symptoms and voiced her reaction in the following way:

My first symptom was an intense ache in my throat, the feeling one gets when one is about to cry and holding it back. I had never heard of this symptom before. I thought it was an esophageal spasm, but I didn't associate it with the heart. I associated it with a hiatal hernia starting, some reflux or something else. With my background I'm amazed that I didn't know that was a symptom.

Dee, also a nurse, was focused on helping her upstairs neighbor and disregarded her own symptoms through disbelief that she could be experiencing an AMI. Her initial reaction was as follows:

I should have called 911 but I didn't stop to think that I needed help that bad. It was something new, I never go to the doctor and it came as a surprise. It was hard to think that something like that would happen to me.

Carol had a history of arthritic pain and assumed that her right arm pain was not serious, only somewhat bothersome.

My right arm hurt real bad, it would come and go. I thought I was getting arthritis in my arm, and neck too.

Strong disbelief that the situation could be anything more than indigestion was verbalized by Janet in the following way:

I thought it was indigestion...and I needed to calm down, get myself under control. It wasn't so bad that I thought I was going to pass out or anything.

As Janet talked, she appeared to be chiding herself for giving into taking something for her "indigestion" and not continue to sort the greeting cards as planned.

Emma, who was focused on recovering from hip surgery, expressed her disbelief in the possibility of experiencing an AMI by the following remarks made during her interview:

It was a surprise because I thought, "who, me? I don't have heart attacks, other people have them." I have a great denial system built in, that it isn't a heart attack and everything will be alright.

As the participants continued to describe their experience, they all told of how they passed from thinking that "this is not anything" to recognizing that there was something definitely wrong that might need their attention

Oh, yes it is

At different points in time, the participants began to realize that something was wrong and that they needed to get professional help. The key events leading to symptom recognition and acknowledgement of the need for care included: pain was unrelieved, inability to breathe, feeling out of control, feeling frightened by symptoms, and realizing that things were not getting better.

Despite differences in their stories, the participants' recognition that more was involved than initially apparent was conveyed in different ways during the Interviews. Carol alerted her husband to contact the HMO after she became aware that her situation was more serious than she previously had thought, as

noted in her following remarks:

I had walked the little dog and I got out there on the sidewalk and I could hardly get back. I had such a bad pain. I came back in and sat on that chair right there and told my husband to call the HMO primary care doctor right away.

Once the participants became aware of the serious nature of their symptoms and feelings, they exhibited a feeling of urgency for a need for action. Helen recalled that when she accepted the idea that she might be having an AMI, she reacted in the following manner:

I had the pain for thirty minutes and it didn't go away. So I told my husband, "We have to go to the hospital right now, I am having a heart attack."

Fern remembers thinking that the problem was with her liver instead of her heart but recalls feeling a great urgency to get to the delicatessen in the market and sit down:

All of a sudden I knew it was more serious. I thought that I'd better get help. I knew that this time it was going to be different. I somehow felt that I needed help immediately, that my life depended on it. The other sick times I wasn't worried but this time I was afraid I wasn't going to make it.

An urgency was also felt by Dee, who recognized that she needed to seek help when she did not start to feel better after a period of time. Dee expressed her thoughts as follows:

Well, I started thinking about it, that this is foolish. I should get help right away. So I called my daughter and son-in-law. I said "I think I need to go to the emergency room at the hospital. It's not getting any better. I can't seem to get any control."

A reluctance to awaken or bother family members during sleeping hours was overcome with the realization by both Kate and Gloria that they needed help and couldn't continue to wait. Kate, awakening her family after waiting two and a half hours, recalled the following:

I had so much pressure on my chest that I couldn't breathe. It was 3 a.m. when I first got up but no one in their right mind calls their relatives and says, "Hey, you guys, I think I'm having a heart attack, wake up." I thought it would ease up but it didn't, so I got up and showered and got dressed. I thought, this is ridiculous, I'd better not drive myself to the hospital although it was only across the freeway. I woke my granddaughter at 5:30 a.m. and she drove me there.

Another participant, Gloria, was also reluctant to awaken her family. However, after waiting for four hours, she realized she was not improving and needed to have her son drive her to the hospital.

I had to sit in front of the fan to breathe. It scared me, really scared me. I thought, I wonder if I'm having a heart attack...this is terrible, this is really bad. I don't know what's going on but I think I'm going to call the hospital and find out what I should do. Then went in and woke up my son to take me to the emergency room.

Other participants shared their experiences of at first denying, or not recognizing, the need for professional care and then changing their minds. One

such example is Alice's remembrance of telling the store clerk at Target:

Don't call 911; I don't want to go to the hospital.
And in about 30 seconds I said, "Call 911." I knew
had a problem. The pain must have been getting
worse.

After noting initial denial, many of the participants seemed to reach a conclusion that professional help was definitely needed. While some waited six hours, other participants came to the realization in a matter of minutes.

Caring for Self

For many of the participants, an important part of their response to this event was trying to take care of themselves. They responded in the following two ways: seeking self-care alternatives, and using the traditional pathways.

Seeking self-care alternatives

In an attempt to keep their lives balanced and maintain a sense of psychologic control, many of the participants attempted self-care through alternative methods prior to seeking professional help. Participants' responses regarding use of self-care measures were primarily focused on deep breathing techniques or use of a fan to help their breathing. A few initiated some type of a relaxation method that they had either learned or read about in the past. Others used medications for pain or indigestion and two participants used smoking to help them relax. Lois recalled the following:

I chain smoked until my daughter got here. I just
figured I'd smoke enough now to last. I was very
calm when she came and I said, "I don't know

what's wrong." She said, "Let's get you over to the doctor" and that was it. I thought there was something definitely wrong. Apparently my daughter noticed something in my voice. I don't remember if I called the doctor's office before and or after I called my daughter. My daughter got lost taking me to the hospital and got worried but I just stayed very calm.

In the following incident, Janet shared her response to her daughter and the self-care measure she planned:

I told my daughter, "I just feel like I have indigestion, I'm going to see if I have a Rolaid." So I went over to get the Rolaid and then I came back and told her, "I really don't feel good, I'm going in the back room." Then I sat and smoked half a cigarette before I asked her to reach her dad.

Other participants tried alternative methods involving over-the-counter medications or physical activities. A combination of these was described by Dee:

I sat and talked to my neighbor and I said, "You know, I'm not any better." She wanted to fix me a cup of coffee but I said I didn't want anything. I just wanted to calm down. I said, "I'm going to lie down for a couple of minutes." I decided an aspirin wouldn't hurt me. I laid here on the couch after I called my daughter. I got my legs up and my head elevated.

Carol recalled that she had tried for two weeks to relieve her indigestion with medications such as Tagament, Zantac, Tums, and Peptobismal without success. However, Irma relied only on physical activity and recounted the following:

I just kept walking around. I tried to lay on my bed but I couldn't do that, it was too painful. I came in and walked around and sort of cried,

you know. I didn't know what to do, I was just kind of at a loss.

One participant, Gloria, was determined to try anything she could to relieve her bodily response to the phenomenon she was experiencing:

I just started burning from the inside out, a very deep heat, and then I started perspiring and perspiring. I started peeling off my clothes until I was stark naked. I turned the fan on full blast and sat in front of it. I was soaked in perspiration. I had to look into the fan to breathe.

All of the participants, whether or not they initially tried any self-care methods, eventually began to realize the need for professional care due to lack of any relief from their symptoms.

Using the traditional pathways

Once the decision had been made to go to the hospital, two routes were utilized for transportation. Five of the participants went by ambulance but the majority were taken by a family member such as a husband, daughter, granddaughter, son, or son-in-law. Those with an actively involved husband experienced hospital arrival faster than those who waited for children to come from their own homes and families. Bonnie, who lived alone, remembered being very apprehensive and unsure about her symptoms.

I just felt terrible so I called my daughter. I felt like I was drifting away and I was crying. So then my daughter and son-in-law came and took me to the hospital emergency room.

Dee, after trying various things for relief, decided she did need to go to the

hospital after all but still waited two hours before calling her son-in-law:

I told him what my problem was...that I needed to go to the emergency room at the hospital. He came over immediately. He told me later that he kept trying to think where there was the nearest fire station, in case he needed to turn in. It really frightened him...the way I looked.

Admitting the need for traditional care, Lois finally contacted her family to take her to the emergency room. However, they had a drive of almost an hour to reach her. She did not think of calling for an ambulance.

I called my daughter after I thought there was something definitely wrong. Apparently my daughter noted something in my voice. I don't remember if I called the doctor's office before and or after I called my daughter. She took me to the doctor's office. I walked upstairs and went in. They started doing an electrocardiogram right away but they quickly stopped. They put me in a wheelchair and put a Nitro patch on my chest. My daughter came in the room then and they quickly pushed me to the elevator. Then they literally ran me to the car. She was so anxious she got lost taking me to the hospital. I just stayed very calm. At the emergency room they came out with a wheelchair and then I guess I really went out. I don't remember what happened after that.

Feeling the need for traditional care, Gloria remembers initially calling the hospital for advice prior to being driven to the hospital by her son. She related the following sequence of events:

They wouldn't tell me anything to do over the phone. They wanted me to come in. So I walked into my son's quarters and knocked on the door. I said, "Could you take me to the hospital, I don't feel very

well." And he quickly got dressed and brought the car up to the door.

The choice of ambulance transportation versus traveling in a family vehicle, was recalled by the participants in different ways. Fern remembered that when she went to the diabetes clinic she followed the usual procedure:

I went to sign in but all of a sudden I didn't feel good. They ran and got a wheelchair and took me to the doctor covering the clinic. He gave me an electrocardiogram and said, "You are all right, there is nothing wrong." He then sent me home but he did give me some Nitroglycerin pills. Then three or four days later at the delicatessen in the market, I realized it was more serious. If I had been home I would have called 911 myself. I wanted immediate help. That's why I went into the Deli. The paramedics came from the fire station and took me to the emergency room.

Calling 911 became a priority for Janet's husband and daughter, after she voiced her concern that she needed help. There happened to be an ambulance going by on the highway near the shopping center where their card shop was located.

As Janet noted:

I was told later that the paramedics's came bursting through the door. I guess my heart had stopped. They did the shock thing. I was out of it by then.

Emma became very frustrated when she felt that she wasn't being heard while in the rehabilitation unit and ingeniously thought to call her husband and daughter at home for assistance in getting some action related to her perceived need for care:

The rehab nurse finally did call the doctor. He decided I was having a heart attack. They called an ambulance to take me right back to the acute level hospital for treatment.

Alice recalled her experience at Target and admitted that the decision to call 911 after her initial refusal was the right thing to do. She remembered it this way:

After I said "call 911," they said they already had and the paramedics were there very quickly. I was in the right place. The fact that I got to the hospital so fast, they told me, left me with very little damage to my heart.

Other participants, like Irma, also delayed getting help. However, once the ambulance arrived she recalled that things seemed to progress very rapidly:

I had these pains in my chest that just wouldn't go away and I called my friend who called the park manager. He called 911 and the first thing I knew the paramedics and everybody were in the house. They said I was white as a ghost. After they questioned me a bit, they took one of my kitchen chairs and sat me on the chair. Then they took me outside to the guernsey and put me into the ambulance. They sprayed some medicine into my mouth and took me to the emergency room. I should have called 911 right away but I didn't stop to think that I needed help that bad.

As discussed above, many of the participants' self-care activities involved trying various unsuccessful alternative methods for relief before using traditional pathways to seek professional care.

The Need for Voice

Merriam-Webster's Collegiate Dictionary (1993) states that voice "is the right to express one's wish, choice, opinion, etc." The ultimate challenge for

these women experiencing an AMI appeared to be facing the health professionals. While some participants were passive, others became assertive in their quest for care and remarked that their assertiveness seemed to bring quicker attention.

Facing the Professionals

The concept of self-voice was more than a point of view but was also referred to by the participants as meaning "speaking up, speaking out, saying what you mean, not being heard, or being silenced." In contrast, an alternate voice of a family member can be used in advocacy should the participant not be able to speak or act for herself. The use of these two voices will be discussed in the following section.

Self voice

Attempting to make professionals understand their situation was one of the areas more vehemently discussed by the participants. Some of the participants described initially approaching medical professionals in a very direct manner, such as Kate and Helen.

Kate, a large imposing woman with a pleasant but strong voice, recalled her eventual arrival at the emergency room. She felt that it was a situation that she wanted to control and recalled the following conversation:

They said, "What's the problem?" and I said, "I have heavy, heavy chest pain and I have a history of clots." You would have thought I was someone famous with all the action. There must

have been seven or eight gentlemen who picked me up and threw me on the table. Everybody started doing something different. I think that's what saved me. They took me seriously.

Helen, another assertive person, walked into the emergency room after arriving by car and used a positive manner and tone of voice to approach the emergency room personnel.

When I got to the emergency room, I walked in and said, "I'm having a heart attack." The girl just looked at me. I said, "I've got pain in my sternum, up into my jaw and I have shortness of breath and I'm having a heart attack." Then she took me seriously and hooked me up to the EKG immediately. I've got to say, one of the reasons I think I was attended to so quickly was because I said, "I'm an RN and I know what I am talking about."

Dee, although a more retiring person than either Helen or Kate, was still able to experience a positive and rapid response from emergency room personnel by emphatically voicing her symptoms.

I didn't have to wait at the emergency room. I just walked right up to the window and said, "I think I've just had a heart attack." They were right there with a wheelchair to take me in.

On the other hand, Emma became very frustrated in her efforts to obtain professional attention. She recalled in detail the response elicited from the rehabilitation unit nurse:

I went to the rehabilitation unit for two weeks recovery after the hip surgery and I was scheduled to go home the next day. That night I started having chest pain so I rang for the nurse.

She tried to placate me, saying "No, it's alright, nothing is wrong." I asked for a Nitroglycerin pill and she said, "we can't give you that." I lost confidence that they were going to do anything to help me, so I called my daughter and husband. My daughter immediately came over. Then the nurse finally got the doctor who arranged for an ambulance to take me back to the hospital. The nurse said, as she was wheeling me out, "some people are just so sorry to leave this place, they are so happy here that they don't like to leave. Sometimes they are awfully upset and maybe that's what it is." My daughter was there and said, "I can't believe what she said to you."

Communication with non-listening professionals also presented a challenge for Alice. She felt that her physician was trying to "put words in my mouth" by his response to her verbalized symptoms, labeling her with symptoms she did not have.

At the emergency room, the doctor kept asking where the pain was going, and I kept saying, "just to my back." All I had was pain with breathing and pain in my back. He asked me three or four times if it was going down my arm or to my neck, and I kept saying that I didn't have that. Then he said again, "Did you say it is going to your chin and neck?" and I said, "No, I didn't say that. It's just going to my back."

Some of the participants were either too weak, in too much pain, or had started to lose consciousness by the time they required emergency help. A family member, (husband, son, daughter, or an in-law) then became the voice for the participant.

An alternate voice

Family members played a large part in encouraging the participant to get care or in giving support while the participant was hospitalized. Some family members became very vocal in their efforts to obtain the best care possible for their loved one. An exceptional example is that of Carol's husband. The participant had been calling her HMO without response. She was getting very upset because they weren't doing anything. Finally her husband called and told them that something must be done. She was sent to her primary physician and was scheduled for three tests within two days. The last test was a colon test requiring sedation. The participant wasn't feeling well but went ahead with the outpatient test anyway. Following the test her husband was with her in the recovery room as she was coming out of sedation.

But I wasn't waking up completely. I remember my husband saying to take a deep breath, and I said, I've got a real bad pain in my chest. Then I don't remember anything else.

Carol's husband was listening to the interview and added his remembrance to Carol's story, recalling that they had put her on an electrocardiogram monitor because she was so slow in coming out of sedation. As Carol's memory during this short interval was vague, her husband recounted the following:

Then they sort of just left her there. But I stayed by her. I didn't like the way the monitor was looking. I told the nurse a couple of times that the monitor was acting strange. I can't read monitors, I don't understand them but it was jumping...they said that was because she was

moving. They weren't really watching her that close because this was one thing they didn't expect in the same day recovery room. Finally I hollered and started CPR. The nurse was over in a second and within minutes they were coming out of the woodwork. They put her head down...I didn't think to get her head down. Her lips turned purple so quick. We found out later that she was only dead for about a minute.

This was the only instance during the interviews when the husband became an integral part of the interview process. In all other cases the interview was kept as a dialogue between the participant and the researcher.

Speaking to Others

During the interview an opportunity was given for participants to share their feelings and views. Some of the participants wanted to give advice to other women regarding what is experienced during a myocardial infarction.

Both Janet and Lois have stopped smoking but encourage the use of reminders such as the one Janet relates:

I still have that cigarette butt. I carry it in my purse. It has lipstick on it and smells but it keeps me from smoking again.

Helen was very sincere in her determination to share her advice with other women. Feeling that stress played a large part in the development of her AMI, she especially wanted to encourage women to:

Listen to yourself. Let go of those things that you can't control. Be aware that when your feeling as though your life is out of control is when illness comes. And you've got to care enough about yourself to realize

that delineation. It's okay to delegate, it is! At the end of all this nobody pays the tab for you but you. And you simply must love yourself enough to not live yourself for others. Every behavior is a message, we only have to learn to read the behavior. We telgraph constantly to the world about what is going on with us and people in my field, I like to think, are trained to read those messages. I think the medical community has to be better at reading that. I'm a firm believer that stressor is the yeast that makes any disease come to fruition. I think without the chronicity of my stressor, which I couldn't change or make better, I couldn't alter my health situation that was then occurring.

Advice given spontaneously by the participants included the following:

listen to yourself and trust your own feelings, pay attention to yourself, seek immediate care, correct any communication misinterpretations occurring with professional caregivers, ask for and encourage family support, and obtain preventive health information.

Summary

Each participant's experience shared in this chapter can be woven into a pattern that demonstrates women's responses to the phenomenon of experiencing a myocardial infarction. These women willingly told their stories in the hope that other women will be able to benefit from their experiences. A valuable and timely challenge is presented, both to women who might have a similar experience in the future and to professionals who care for these women.

In sharing their stories, the participants courageously related their physical responses and feelings that they encountered during their journey. Professionals

can learn the value of listening to each individual and noting that not all women experience a myocardial infarction in the same way. Yet there are also similarities among these women that vary from the typical AMI experiences currently described in literature.

CHAPTER FIVE

DISCUSSION OF THE FINDINGS

This chapter focuses on discussion of the findings of this study in relation to existing literature. The study focused on entering the world of twelve women who had experienced their first myocardial infarction and on understanding their feelings, physical responses, and recognition of care needs at that time.

Previous research noted in the literature regarding symptomatic response to myocardial infarction has employed quantitative instruments such as written questionnaires, structured interviews, or chart reviews of hospital records to obtain a list of symptoms (Hartford et al., 1993). Leonard (1989) contends that a person must be studied within the context of his or her world in order to gain an appreciation of that person's actions and values. The use of the phenomenologic approach for this study was appropriate because it gave participants an opportunity to recall, in their own words and in a nonthreatening setting, a critical experience that affected their lives. Sorrell (1994) notes that the phenomenologic approach to interviewing can call forth a profound experience from the participant. No previous phenomenological research on women with myocardial infarction was identified in a comprehensive literature search.

The purpose of this chapter is to link the major themes derived from the interviews and presented in the previous chapter with the literature and the concepts of phenomenological methodology as outlined by Giorgi (1975, 1985,

1992). The first section presents a discussion of the participants' realizations that "something is different," an in vivo code for their physical reactions or symptoms. In particular, the participant's verbal and nonverbal language during the interview is discussed. The second section includes discussion of caring for self as well as steps taken by the participants to obtain professional care. The third area of discussion centers on the need for voice by both the participants and their families.

Something is Different

Physical reactions to a myocardial infarction were perceived as "something is different" by the participants and are presented in detail in Chapter Four. In this chapter these findings are discussed and compared to previous studies in the literature.

Warner (1995) contends that early detection of acute myocardial infarction (AMI) may be dependent on the women's perceptions of symptoms of myocardial ischemia and their attribution of significance to those symptoms. Rankin (1995) described atypical presenting symptoms from her interviews with Anglo-American and African-American women experiencing an AMI. These included: epigastric pain/burning, chest cramping, "flutters" without pain, shortness of breath, lower abdominal pain, severe fatigue, tiredness, depression, dull pain between breasts, bilateral arm pain half an hour before chest pain, sudden shortness of breath with inability to talk, move or breathe, bilateral posterior

shoulder pain, ankle edema, rapid weight gain, and thoughts of death. In comparison to the above study, only four of the listed symptoms were experienced by the participants in this study. These symptoms or physical reactions included shortness of breath, heart flutter, epigastric burning, and tiredness.

A previous study cited in literature purporting to clarify women's symptoms used a mixed gender questionnaire with a rigid format that included the following twelve descriptive words: pressing, aching, cramping, grinding, pricking, burning, pinching, stinging, sore, tearing, cutting, and gnawing (Hofgren et al., 1994). Aching was the only descriptive word from this list mentioned by the participants in this study.

Hartford et al. (1993), in a study of both genders that also used a symptom questionnaire, asked participants to rate their level of chest pain or chest discomfort, arm and jaw pain, fatigue, dyspnea, vertigo, nausea, and cold sweats. Some of these symptoms were mentioned (with a variation) by the participants in this study, notably having a cold sweat, nausea, dyspnea, and arm or jaw pain.

Lee (1997) contends that the classic premonitory symptom of chest pain is largely based on data gathered from white middle-class men and that atypical premonitory clinical signs and symptoms of myocardial infarction have not been consistently defined. Several recent studies have found that the atypical clinical

symptom of dyspnea was more frequently reported by elderly, female, and black patients with myocardial infarction (Bayer et al., 1986; Muller, Gould, Betzu, Vacek, & Pradeep, 1990). From the information gathered from the participants in this study, it would appear that they would fall into an atypical category with only 25% having experienced chest pain and 33% having experienced dyspnea.

Gender Bias

Current cardiopulmonary resuscitation (CPR) courses still teach a symptom list derived from predominantly male samples as a guideline for identifying a myocardial infarction in both genders. The listed symptoms include chest discomfort (including chest pressure, fullness, squeezing), or pain located in the center of the chest radiating to arm, shoulder, neck, and lower jaw. Although previously listed as left arm pain, this symptom has been expanded to include pain in either arm. The chest discomfort can include other symptoms such as: fainting, sweating, nausea, or shortness of breath (American Heart Association, 1993).

Gender-specific AMI symptom recognition is not yet being taught at the provider level for emergency care. Johnson and Morse (1990) emphasize that it is inappropriate to assume that the middle-aged male experience is unqualifiably applicable to women. Men experiencing heart disease symptoms may be identified as "textbook cases" because texts were written to describe men's

symptoms; however, what is an atypical presentation for men may be quite typical for women (Judelson, 1994).

Gender bias related to symptom recognition and treatment has been increasingly discussed in the literature over the last eight years (Heston & Lewis, 1992; Ayanian & Epstein, 1991; Hsia, 1993; Wenger, 1992). Twenty-six years ago, the Framingham Heart Study used the symptom of chest pain to define the presence of heart disease. Early findings of the study suggested that a diagnosis of heart disease in women was not a serious health matter, based in part on the enrollment of women in the study who suffered chest pain attributable to a noncardiac cause (Kannel & Abbott, 1987). Amsterdam and Legato (1993) contend that, when chest pain is evaluated in women, it is less often associated with significant CAD. For example, chest pain and tachycardia may be the presenting symptoms of depression and anxiety disorders in some women (Wenger, Speroff, & Packard, 1993). It is doubtful whether any of the participants in this current study would have been identified as experiencing a myocardial infarction, had they been part of the original Framingham Heart Study. Those participants with atypical and vague symptoms would no doubt have been considered to be suffering from depression or anxiety and may not have been given the benefit of tests to determine the presence of a myocardial infarction.

Amsterdam and Legato (1993) also suggest that myocardial infarction symptoms can vary in women, thus hindering diagnosis and treatment. The

participants in this study presented with myriad symptoms that could easily fail to be recognized as significant by an uninformed caregiver. Psychosocial differences between how males and females are treated have been documented (Ayanian & Epstein, 1991; Heston & Lewis, 1992; Hsia, 1993; Judelson, 1994; Laurence & Weinhouse, 1994; Legato & Colman, 1991; Wenger, 1990), including women being treated less seriously and less aggressively than men when the women go to family doctors or emergency departments with subtle or overt signs of AMI. This assertion was supported by the findings of this study; for example, in the experiences of Emma and Carol whose complaints were not taken seriously by health professionals, thus further delaying appropriate treatment in the hospital.

Myocardial infarction symptoms "from a woman's perspective" were identified in the Myocardial Infarction Triage and Intervention (MITI) registry (Maynard & Weaver, 1992). Symptoms determined to be more common in women were dyspnea, fatigue, nausea, and upper abdominal pain; whereas diaphoresis was more common in men. Present equally in both sexes were: chest pain, dizziness, limb weakness, and syncope (Maynard & Weaver, 1992). Approximately 50% of the above symptoms were identified by one or more of the participants in this study (refer to Appendix A for summary of participant characteristics). Although previously published findings partially support the physical reactions noted in this current phenomenological study, some

symptoms identified by the participants were not described in previous research studies. These included physical responses described as a "hot, burning feeling", looking "white as a ghost" and "lung pain."

Gender difference in symptom presentation may be due to women having smaller hearts and coronary arteries than men. Legato and Colman (1991) suggest that women's coronary arteries may also contract or narrow more vigorously than men's in response to the same stress. This may account for some of the variance in women's symptoms. Rankin (1995) noted that only 24% of the women she studied presented with the classic description of chest pain that radiated to neck, jaw, or arm. In this current phenomenological study only two of the women (16%) described the classic chest pain with radiation as outlined by the American Heart Association (1996).

Heart disease usually manifests itself 10 years later in women than in men, possibly due to the protective effects of estrogen prior to menopause (Wenger, 1992). In this study 25% of the women were under 65 years of age; however, 17% were between 65 and 74 years of age and 58% of the women were over 75 years of age. All of the participants were post-menopausal. Women in their sixties and seventies are more likely to have other age-related health problems such as diabetes, hypertension, or arthritis (Penckofer & Holm, 1993). The American Heart Association (1996) notes that diabetes and hypertension are more prevalent in older women than in older men. In this current study, co-

existing disease conditions were noted in nine of the twelve participants (75%), with all but 2 of the participants being above 73 years of age. Amsterdam and Legato (1993) declared that women with coronary artery disease (CAD) are twice as likely to have hypertension as men with CAD. Also, when compared to men with diabetes, diabetic women have more coexisting risk factors for CAD and appear to be more vulnerable to cardiovascular events (Amsterdam and Legato, 1993). Two participants (16%) in this study had a history of hypertension, two participants (16%) had diabetes, and one participant (8%) had a history of blood clots. Two participants (16%) were smokers, and stated that they are now former smokers. Each of these former smokers saved a portion of a partially-smoked cigarette as a reminder of their AMI experience and this became an effective deterrent to re-starting this habit.

Family History

Family history continues to be one of the nonmodifiable risks for CAD. Seven of the participants (58%) in this phenomenological study had a positive family history of heart disease; however, almost half of the participants (5 or 41/6%) had no family history of CAD. In this study one participant (8%) had a history of both maternal and paternal heart disease, two other participants (16.6%) had a history of maternal heart disease, and four participants (33%) had a history of paternal heart disease. The findings of Hunt, Blickenstaff, and Hopkins' (1986) study of CAD risk factors in close relatives of Utah women

indicated that first-degree relatives of women who died from CAD before age 55 were more than five times as likely to have early coronary disease, with the daughters incurring nearly twice the risk of CAD than the sons. According to Burkman (1991) and Cochrane (1992), maternal history of heart disease or stroke before age 60 appears to carry a greater risk for women than a paternal history of heart disease. Marenberg, Risch, and Berkman (1994) conducted a large-scale longitudinal study with findings indicating that maternal CAD history was significant as a predictor of premature (under 55 years of age) CAD for first degree women relatives. Support for the findings of Burkman (1991), Cochrane (1992), and Marenberg, Risch, and Berkman (1994) was not evident in this study, as more participants had a paternal history rather than maternal history of heart disease in their backgrounds.

Onset Time and Place

Onset of AMI symptoms can vary in time and place. Eight of the participants (66%) experienced sudden onset of symptoms while four (33%) experienced warning symptoms occurring either days, weeks, or in one case, months in advance of the actual event. The time of day or night at which the symptoms occurred also varied. Six participants (50%) experienced the event during night hours, four participants (33%) in the morning, and two participants (16%) in the afternoon. Rankin (1995) reported that 83% of the women in her study developed myocardial infarctions while at rest. In comparison, 50%

occurred at rest in the women in this current study (e.g., as they were sleeping or sitting at home). Activities at time of onset for the other 50% included walking, stair climbing, or shopping.

Place of occurrence varied from home, park, store, hospital and recovery room, to rehabilitation unit. The majority of the participants (66%) were at home when they realized that they needed medical attention. Time frames to actively obtain professional help ranged from one to six hours. Those five participants (41%) whose husbands were home at the time of onset were noted to have the shortest delay time in reaching the emergency room. Factors possibly leading to delay in seeking help will be discussed in the next section.

The Need for Care

Discussion in this section provides insight into the initial denial or lack of recognition for need for care by women with AMI and their eventual acceptance that there was something wrong. Following their acceptance that something was wrong and recognition of their need for care, caring for self was accomplished by the participants first through seeking self-care alternatives and then by using the traditional pathways to obtain professional attention.

Reality Recognition

The first step in obtaining medical care following the onset of an AMI must be taken by the patient (Pole, 1974). However, if the typical male symptoms familiar to most people through the media or literature are not present, many

women either do not recognize the symptoms of acute myocardial infarction or minimize the significance of their physical responses. The key events leading to symptom recognition and acknowledgement of the need for care by the participants in this study included: unrelieved pain, inability to breathe, feeling out of control, feeling frightened by the symptoms, and finally realizing that the symptoms were not improving.

Cochrane (1992) proposes that women may not suspect it is their heart, thinking that AMI is a man's disease. One participant stated her initial belief was that "women do not have heart attacks." Such phrases as "It's only indigestion" or "I'm too young to have a heart attack" indicate lack of recognition or denial of symptoms. Attributing symptoms to a benign cause was identified by Dempsey, Dracup, and Moser (1995) in their research on women with acute myocardial infarction. Nolan and Wielgosz (1991) wrote that the most common response to symptoms of acute myocardial infarction for both genders is denial of the significance of their symptoms. Legato and Colman (1991) suggest that there is a great deal of denial on the part of heart attack patients in general, and among women in particular. They noted that the women in their medical practice showed less inclination to call the doctor than did the men.

Another face of denial that surfaced during the interviews in this study was that some of the participants could not justify their illness and played down symptoms over concern for children's or husband's health problems. Statements

voiced by the participants were: "I didn't think I needed help," and "It wasn't anything I couldn't handle." Cronin, Logsdon, and Miracle (1997) emphasize that most women in their study felt responsible to resume as soon as possible their caregiver and nurturer roles. Miller (1986) observes that women often lack the ability to really value and credit their own thoughts, feelings and actions. Women may recognize the presence of symptoms, but minimize their importance by describing them as "trivial," "nothing to be concerned about," and "not serious" (Dempsey, Dracup and Moser, 1995). According to Schaefer (1992), women tend to deny their symptoms and thus delay seeking treatment for many hours.

Several participants in this phenomenological study stated they did not recognize that they needed help or discounted the importance of their symptoms, not wanting to bother family members. Dempsey, Dracup, and Moser (1995) also describe participants who had fears of imposing on others in seeking help. Cronin (1990) suggests that the use of defense mechanisms, most notably denial, may play an important role in the early control of emotional distress.

Co-existing conditions, such as arthritis, peptic ulcer, or chronic lung disease, while not related to heart disease, may have symptoms that contribute to delays when a myocardial infarction has occurred (Arnstein, Buselli, and Rankin, 1996). Participants with arthritis or diabetes in this study were noted to have treatment delay times of 1 to 2 hours. Compared to other studies, it appeared that co-existing conditions did not increase delay times for care. As

mentioned above, those participants in denial may attribute their symptoms or physical reactions to a pre-existing condition. Dempsey, Dracup, and Moser (1995) cited a median delay of 5.4 hours in seeking treatment. Women in their study attempted to maintain control over the situation by self-treatment or ignoring symptoms, which increased delay in getting help (Dempsey, Dracup, and Moser, 1995). An average delay of 10 hours was identified in Rankin's (1995) study of African-American and Anglo-American women, due to a lack of conviction that they were at risk and needed to seek immediate help.

In the sample for this current phenomenological study a shorter mean delay time of 3.5 hours was found, while an average of one hour delay time occurred for those participants who had actively involved husbands. In contrast, the longest delay time of 6 hours occurred for a woman who lived alone and was dependent on a neighbor for help. Also, those women who needed to call children for help experienced longer delay times to arrive at the emergency room for care. These findings are in contrast to Alonzo's (1986) finding that consultation with one's spouse increases delay, whereas consultation with a coworker or friend decreases delay. It would seem that women with heart problems are in special need of patient advocates, preferably close family members.

Feelings Identified at Time of Event

Halm & Alpen (1994) recounted that feelings of anger, hostility, helplessness, and dependency were noted in myocardial infarction patients of both genders who were involved in support groups. Emotions that surfaced during the interviews for this current study included anger, hostility, anxiety, and a feeling of being "out of control." The emotions were expressed verbally and nonverbally. Anger was evident on several levels: anger at delay of care and/or disbelief by professionals, anger at self for nonrecognition of symptoms, and anger at being incapacitated or inconvenienced by the event. One participant, Helen, perceived that she felt anger at being trapped and not being able to find a resolution. Miller (1986) described anger as an important part of powerlessness. Williams (1993) emphasized that anger can be as much of a risk factor for CAD as cholesterol, smoking, hypertension and a sedentary lifestyle. He noted that anger can dramatically elevate levels of stress hormones, as well as blood pressure, so that it can exacerbate an already life-threatening pathophysiological process (Williams, 1993).

The term "anxiety" was used by several participants in this study to denote a vague feeling of uneasiness. For example, Alice's remark when she entered the Target store was: "I immediately looked for a place to sit. I must have looked ill because many of the store personnel came over immediately to help me." A different version of anxiety was noted by Carol as she related the

times she felt faint prior to the AMI event. She also noted that she felt "upset and anxious" regarding the inadequate care from her HMO. Some of the participants, especially Helen and Janet, perceived anxiety to be related to a feeling of powerlessness and loss of control.

As discussed by Johnson and Morse (1990), a heart attack can undermine one's feelings of self-confidence and self-worth, which could, in turn, threaten independence and jeopardize a person's sense of self. It was apparent during the interviews that many participants felt they could not give themselves permission to be sick or dependent. Healy (1995) emphasizes that, if women do not believe they have heart attacks and do not pay attention to their symptoms, they will not express themselves in such a way as to receive the attention of their physicians for appropriate diagnosis and care. At different points in time, the participants in this phenomenological study began to realize that something was wrong and that they needed to get professional help.

Caring for Self

In an attempt to keep their lives balanced and maintain a sense of psychologic control, many of the participants attempted self-care through alternative methods prior to seeking professional help at the emergency room. Alternative methods used by some of the participants included initiating deep breathing techniques or the use of a fan to cool off and to facilitate improved breathing. Other participants tried a previously known relaxation method,

medications for pain or indigestion, or an attempt to relax by smoking. However, none of the self-care methods they used were successful in relieving their symptoms and it was at this point that they made a decision to seek further care. Self-treatment was also tried unsuccessfully by participants in research done by Dempsey, Dracup, and Moser (1995), including the use of medication, changing position, being distracted, sleeping, drinking cold fluids or using heat before finally seeking help. Some of these identified self-treatment options were similar to those used by participants in this study, such as, changing position, taking medication, or attempting to distract themselves from their symptoms.

Following a decision to go to the emergency room, the study participants had a choice of being driven by a family member or calling an ambulance. Once at the emergency room, interaction with professional caregivers began. Dempsey, Dracup, and Moser (1995) note that their participants with continued unrelieved symptoms began to relinquish control as they acknowledged the significance of their symptoms and sought lay counsel prior to going to the emergency room. Seeking extensive lay counsel may have influenced their delay in obtaining professional care. In contrast, in this current phenomenological study the participants had less delay time by seeking lay counsel and obtaining professional help sooner.

The Need for Voice

The participants used several approaches when facing professional caregivers. Those who were more assertive appeared to receive faster care. Assertiveness in seeking care by the participant is urged by Healy (1995), Laurence and Weinhouse (1994), and Legato and Colman (1991). According to Allen, Gilchrist, Levinson, and Roter (1993), ensuring that nurses, physicians and other care givers are listening will provide better care for women. Malterud (1993) points out that people who are not heard are people who are not in power and that raising women's voices within the medical culture constitutes an act of empowerment.

Tannen (1986, 1990) describes gender differences in communication style that could account for a large part of the misunderstandings between men and women, as well as listening styles and their impact on receiving clear communication. She notes that intonation involving loudness, pitch, pausing and pacing influences conversational style. The indirectness that some people use in communication can have an adverse effect, conveying the opposite meaning than is intended (Tannen, 1986). Many of the participants in this study began to be aware of communication problems during their interactions with professional caregivers; for example, Alice's physician consistently misunderstood her symptom description. Health professionals often misinterpret women's coronary symptoms to be psychosomatic in origin, and need to employ better listening and

communication skills in order to accurately interpret their symptoms (Penckofer and Holm, 1993; Healy, 1995; Legato and Colman, 1991).

Only one-third of the women in this study were able to speak out successfully and become their own advocate to obtain quicker care. An alternate voice for the majority of the women in this study was provided by family members. Freidman (1993) found that patients with two or more sources of emotional support were three times more likely to survive than those who had no support. Less than 50% of the participants in this current study had more than one means of social support. Arnstein, Buselli, and Rankin (1996) emphasized that, due to health care providers past disregard for women's symptoms, it is crucial that women learn to advocate for themselves in medical situations if they have no other advocate for support.

Summary

Symptoms identified by the participants in this study differed slightly from symptoms reported in previously published research, specifically identification of lung and back pain, right arm pain, esophageal spasm with throat ache, and an intense feeling of heat or cold. Dyspnea and/or indigestion were noted in 33% of the participants, whereas chest pain or chest fullness were reported by 41.6% of the participants in this study. Similar denial tactics and delay in symptom recognition have been supported by recent research done by Dempsey, Dracup, and Moser (1995); Maynard and Weaver (1992); and Rankin (1995). Delay time

from symptom onset to emergency room arrival for care proved to be less in this current study than the delay times noted in other studies (Dempsey, Dracup, and Moser, 1995; and Rankin, 1995). This may have been due to the availability and active involvement of family members as advocates for the participants in this study.

Verbalized and non-verbalized feelings identified in this study substantiated in part the research findings of Halm and Alpen (1994). These feelings included anger, anxiety, loss of control, and a feeling of powerlessness. According to Miller (1986) and Gilligan (1982), women perceive and use power differently than men. Women are more likely to seek empowerment where there is interaction among all parties in the relationship to build connection and enhance everyone's power (Miller, 1986).

Traditionally, heart disease researchers have sought only male research subjects. Heart disease has historically been considered a disease of middle-aged men. The incidence and severity of heart disease in women has been under-recognized. Exploring women's experiences and problems in perceiving their symptoms of AMI and the power relationship between males and females during the communication of their AMI symptoms can provide further insight into how women may improve their care needs in the future (Malterud, 1993).

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

This study explored the lived experience of post-menopausal women having a myocardial infarction prior to their hospitalization. This chapter presents a critique of the study, the conclusions reached based on the findings, the implications of the findings for nursing practice and education, and recommendations for nursing research. Suggestions to promote further development of knowledge regarding symptom recognition and treatment of women with myocardial infarction are also proposed.

Critique of the Study

One of the strengths of this study is the use of qualitative methodology. Phenomenology is a type of qualitative methodology that seeks to understand and describe matters from the perspective of the participants so as to adequately reflect their lived experiences. Giving the participants an opportunity to tell their stories through phenomenological research allowed verbalization of negative as well as positive aspects of their experience. The authenticity of the participants' reports of their experiences gave the women a feeling of control. The ability to reveal their feelings was noted by the participants to be a healing process following a very frightening and unexpected intrusion in their lives.

strength to the study, portraying a broader spectrum of women with the common experience of a specific life-threatening illness. An additional strength was the eagerness of the women to participate in a research study, especially one that they felt would benefit other women. Strength in the study also came from the unstructured descriptions which added depth and insights useful in providing other women an opportunity to identify with the participants.

The ethnic homogeneity of the participants can be considered a limitation of this study. The participants were predominantly Caucasian with only one Hispanic female. Cultural variations are not readily discernible in their perceptions of their experience. Perception of symptoms and assertiveness in seeking professional care varied and might be linked to the participants' socio-economic or educational level. For example, Gloria and Dee both hesitated to "bother" their children for help, which could have delayed treatment. These two women were also on MediCal Assistance, which affected their ability to participate in an expensive cardiac rehabilitation program following hospitalization. College-educated women, such as Alice and Helen, appeared to be more assertive and had less delay time in seeking care. However, education level may not always increase assertiveness in seeking care, but may depend upon the woman's basic personality. The context or physical and psychosocial environment may also have influenced some of the participant's perceptions; some were in the hospital at the time of the initial AMI, while others were at

home; some had significant others available, while some were single and without immediately available family or friends for social support.

Although every effort was made to diminish the possibility of researcher bias, some may have occurred through "believing that the culture and context is already familiar." Thus, important pieces of data may have been overlooked. This is a risk when a cardiovascular nurse specialist conducts research on symptoms that must be considered already familiar to her. This bias was countered by the researcher through bracketing her personal experience and assumptions and keeping those assumptions in the foreground during the conduct of the study.

Key Ideas Drawn from the Findings

Women's AMI symptoms vary from traditional male symptoms for AMI and tend to be different for each woman; neither women nor their professional caregivers readily recognize their specific symptoms as relating to an AMI. Once women experience an AMI and recognize the need for care, they attempt self-care and, when this does not bring relief, seek professional care. Delay time for seeking professional care is reduced by the influence and availability of an active family member, especially a husband. Women's communication skills for interacting with health professionals tend to be ineffective and this interferes with caregivers giving credence to their AMI symptoms. In addition, co-existing diseases or family heart history are not always a contributing factor in a woman's

developing an AMI. The lived experience descriptions of having a heart attack that have evolved from this study are based on an exclusively female sample.

Recommendations

Based on the findings of this study, recommendations for nursing practice, nursing and patient education, and nursing research are presented in the following discussion.

Nursing Practice

Nursing practice in the care of women with CAD could benefit from additional attention to improved cardiovascular assessment methods and more efficient advocacy for women with CAD. Cardiovascular assessment methods need to be modified when taking histories from women to identify any atypical and hidden symptoms of CAD and symptoms of denial. Beery (1995) advocates that women be treated with an appreciation for their history of not being taken seriously by incorporating a concerned and attentive listening style. Raising women's voices within the medical culture constitutes an act of empowerment (Code, 1991). Boogaard (1984) states that nurses need to sensitize their nursing peers and physician colleagues to gender differences relating to the care of women. Primary care physicians for women, such as OB-GYN or family practice physicians, need current information on the different ways women present with AMI. Telephone triage nurses with HMO managed care insurance groups would benefit having additional knowledge regarding women's atypical symptom

presentation, facilitating more efficient service to women experiencing an onset of AMI.

Furthermore, Sampsel (1990) emphasizes that nurses are in an ideal position to demonstrate the value that can be placed on women's lived experiences. Nursing personnel must become advocates for women and encourage them to seek care when they first experience chest pain or other persistent symptoms of AMI. Women should be encouraged to write down questions and concerns prior to any interaction with the physician, to ensure that they will be able to be articulate and make their voices heard. Women should also be encouraged to be persistent and to insist on being provided appropriate care. The nursing profession can provide an invaluable service by listening carefully to the woman who may be experiencing an AMI and by being open to the possible significance of atypical symptoms.

Patient and family education

Education of the public, especially women, regarding the signs and symptoms of AMI is vitally needed in order to decrease the time between onset of symptoms and seeking medical care among women experiencing an AMI. Current literature encourages women to be persistent in describing their signs and symptoms to healthcare providers regardless of their perception of the severity of those signs and symptoms (Cronin, Logsdon, & Miracle, 1997; Belenky, Clinchy, Goldberger, & Tarule, 1986; Kleinman, 1988; Jensen & King,

1997). Teaching women strategies for symptom recognition and motivating response actions may include the use of articles in lay magazines, brochures, videotapes, group presentations, and one-on-one instruction. Encouragement of preparation by women prior to a physician appointment would include the following points: bring your list of questions and a "second ear" for support, don't be intimidated by the office schedule, think of yourself as partnering with your physician, tell your doctor/nursing staff about major changes in your life, and ask for clarifying instructions on the treatment plan (Roter & Hall, 1992). Nursing is in an ideal position to provide patient and family education in this area. Improving outcomes for women includes encouraging them to pay attention to coronary risk factors, making sure women know what to do when they experience any type of cardiac symptoms and encouraging intervention sooner rather than later (Amsterdam & Legato, 1993).

Prevention of CAD/AMI, as well as symptom recognition, is an important and still-neglected area of patient education. Nurse practitioners, as the first point of contact with the health care system, could be at the forefront in promoting CAD risk reduction and early recognition of AMI by becoming acutely aware of how the presentations of women differ from those of men. Arnstein, Buselli, and Rankin (1996) emphasize that women need to be taught that the faster they report their symptoms to their providers, the greater the possibility of limiting cardiac damage. Education programs targeted to family members, to

increase awareness of signs and symptoms of AMI is also important. Family members should be advocates for care when women with an AMI are not able to advocate for themselves. Nurses can play a unique role in the education of women and their family members with the ultimate goal of decreasing CAD and AMI mortality and morbidity. Heightened awareness can lead to prompt, more effective care.

Nursing Education

Nursing education curricula at all levels (preservice, graduate and continuing education) should, at the very least, include improved learning experiences concerning cardiovascular assessment of women and recognition of their atypical symptoms. A specific focus should be placed on using attentive listening skills in taking an accurate cardiovascular health history. Atypical chest pain is very common among women with AMI and nurses' awareness of the possible variations in its presentation is essential. The female participants in this study had difficulty communicating the depth and severity of their chest and/or back pain and other symptoms to both nursing and medical personnel. The failure of a health professional to listen and assess appropriately led to a cardiac arrest in one participant. This participant survived only because family was present and the husband assertively intervened and sought help for his wife.

Nursing courses should enhance knowledge concerning the differences between women's and men's communication styles. This will increase the awareness by nurses of women's special needs in health and illness. As noted

by Fielding (1987) and Rudy (1980), patient perceptions regarding causative factors of cardiac disease are often different from those held by health care providers because patients focus more on psychosocially-oriented causes rather than physiological causes. Kleinman (1988) states that legitimizing the patient's illness experience, authorizing that experience, and auditing it empathetically are the key tasks in the patient's care.

Nursing Research

The dearth of research on women and heart disease, compared with that done on men, provides an opportunity to augment women-focused research with additional studies (Hanson, 1994). Nursing has a responsibility to develop strategies to decrease risk factors for CAD in women. Future research needs to be conducted to determine the most effective types of educational programs to increase public and nursing knowledge and awareness of signs and symptoms of AMI in women, as well as to bridge the knowledge-behavior gap. Delays in diagnosis and treatment because of women's family members and their professional caregivers' disregard or minimization of symptoms must be eliminated. This is especially important in an era of managed care with increased incentives to withhold expensive diagnostic tests and treatments. Exploration of emotional reasons for resistance in calling the emergency medical system or delaying the decision for seeking care are also areas for future research.

Beery (1995) noted that clinical treatment of women must not be based on information extrapolated from studies done on men. Further research trials on women with CAD and AMI are vital. Phenomena to focus on include: 1. Why do women have a higher risk of death than men after AMI? and 2. Is there a relationship between personality, behavioral features and cardiovascular disease in women? Additional research could be conducted on a larger group of women to evaluate the relationship between the clinical presentation of AMI in women and pre-hospital delay for care. Premen (1996) suggests that studies need to be conducted to examine the importance of gender differences in the aging cardiovascular system. Another important area for research is how social support for symptomatic women prior to hospitalization influences their AMI treatment and outcomes.

Malterud (1993) emphasized that knowledge constructed from women's voices will be neglected by medical power unless it is investigated, documented, and scrutinized by systematic research procedures, thus becoming an amplifier of women's voices. Women need to be encouraged to participate in studies, as appropriate, and be taught how to determine their individual risks of participating. Women can no longer tolerate exclusion from research protocols. Nurses must support and promote research in the clinical setting that seeks to address the specific concerns of women (Romeo, 1995). One such study could be on

strategies needed to empower older women to cope with the demands of heart disease.

There continues to be a lack of large-scale scientific studies focused on women with CAD; however, the NIH-funded Women's Health Initiative, a thirteen year multimillion dollar study, is a big step in the right direction. It is hoped this study will provide enlightenment concerning a range of women's health concerns, especially CAD. Organizations that are helping to advance the understanding of women's diseases by encouraging future research are: The Jacobs Institute of Women's Health, National Organization of Women's Health Professionals, and the Older Women's League (Pittman & Kirkpatrick, 1994). It is only through the continued collaborative efforts of nursing and health care researchers and clinicians that the care of women with CAD/AMI will be improved in the future.

Concluding Thoughts

The twelve participants were each unique and required supportive approaches for their stories to unfold comfortably. Through the verbalization of their stories, the participants allowed this researcher to experience some of their frustration, worry, anger, and finally, acceptance of an unsettling, serious and potentially life-threatening event in their lives. Sharing their experiences permitted the opening of a window regarding the need to educate other women and health professionals about symptom recognition and self-advocacy. As

noted in this study, women with AMI cannot be neatly categorized as having all the same symptoms or feelings. Each woman reacts individually, making it necessary that health professionals listen to them and observe them carefully.

A multi-faceted approach is needed (which incorporates the written word, radio and television media, and small group lectures) to promote preventive CAD education for women. Certainly, more research focusing on women's health is essential to eradicate old stereotypes still operative in the approaches to treating women with AMI.

Finally, this inquiry has contributed to the profession of nursing by elucidating the lived experience of twelve different women who developed AMI. Insights have been gained which can be utilized in planning future lay and professional education and research concerning CAD in women.

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Appendix A

DESCRIPTIVE VIGNETTES OF THE PARTICIPANTS

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APPENDIX A

DESCRIPTIVE VIGNETTES OF THE PARTICIPANTS

Participant 1, "Alice" is a very alert, outgoing 80 year married woman with 4 children, 10 grandchildren, and 5 great grandchildren. She and her husband have been active mall walkers for several years and she takes pride in being in good physical condition for her age. She is a college graduate and worked in business for many years. They have lived in the same house for 45 years. There is no family history of heart disease.

Participant 2, "Bonnie" is a 79 year old, soft spoken widow with 6 children and 8 grandchildren. She has lived in an assisted living apartment since her second husband died 7 months previously. She is very dependent on her youngest daughter for decisions and support. Her father had a stroke but there was no other family heart history.

Participant 3, "Carol" had one year of college, is 75 years old, physically active, married, and prefers not to let her hair become gray. She is the third oldest in a family of 11 children. She has an extremely supportive husband who keeps track of her medications and exercise program on the computer. She has 3 children and 2 grandchildren. There is a paternal history for heart disease.

Participant 4, "Dee" is an enthusiastic 76 year old widow. She is a former LVN who went on at age 32 to get an RN degree after the death of her husband, leaving her with young children. She worked into her late sixties, feeling the need to help her 5 children and 6 grandchildren with financial worries. Her hobby is

sewing dance costumes for her oldest granddaughter who takes dance lessons to relieve joint pain from juvenile arthritis. She states that she tries to stay up to date with nursing literature. She made sure her medical information was on the refrigerator for easy reference by the paramedics when they arrived to transport her to the hospital and frequently urges other people to do the same to facilitate care.

Participant 5, "Emma" is an attractive, outgoing 80 year old woman, previously widowed but now into her second marriage. She has 3 children as well as several step children along with 2 grandchildren that she dotes on. Emma had 2 years of business college prior to her first marriage. There is a history of heart disease in her family.

Participant 6, "Fern" is a widowed, 78 year old woman presently living alone. She has 2 daughters and 2 grandchildren within thirty miles distance. She attended business college for 1 year prior to marriage. Both her mother and brother had heart disease. Fern appeared lonely and talkative, and insisted on serving a light meal at the interview.

Participant 7, "Gloria" is a 63 year old Hispanic woman and is the only non-Caucasian in the group. She appears younger than her age. She has worked in a dry cleaning establishment since she was 18. She married right after finishing high school and has 3 sons and 12 grandchildren. She recently divorced and lives with her oldest son in a separate bedroom apartment. There is

no family history of heart disease. She misses the work environment and hopes to return soon to some type of work.

Participant 8, "Helen" is an attractive, polished 55 year old professional woman with a master's in counseling and a bachelor's in nursing. She is married, has no children, and has worked her entire life, starting as a navy nurse. There is no history of heart disease in her family. As soon as possible after her AMI she resumed her practice and started to see her therapy patients again. She is eager to share insights with other women.

Participant 9, "Irma" is a 73 year old woman recently widowed with 6 children, 4 of whom were able to get to the hospital to visit. She lives alone with few friends in the apartment complex. She finished the eleventh grade before she married and as a homemaker, has worked very little outside of the home. She is determined to resume her walking schedule around the park as soon as possible.

Participant 10, "Janet" is an attractive 60 year old business woman who has owned gift shops in Colorado and California. She is married and has 2 children, one a married son with grandchildren, and a daughter living at home. She is a smoker of many years. As an only child, she has had tremendous stress recently with the problem of selling one shop and buying another to be near her dying mother. There is no history of heart disease in her family. She feels that her husband is not as supportive as he could be, and that he left too many

business decisions up to her. She had two years of college prior to marriage but would like to return for more education.

Participant 11, "Kate" is a 75 year old widow with a bachelor's degree in education. She is one of 11 children with 5 brothers and 5 sisters. She has 3 children and 4 grandchildren. She was disappointed in having to delay a trip to Scotland due to the AMI, as she had planned to do genealogical research on her visit. She has extensive investment knowledge and at the time of her AMI she was feeling stress due to fluctuations in the market. There is heart disease history in her family.

Participant 12, "Lois" is an articulate and physically young appearing 65 year old widow with 3 children and 4 attentive grandchildren. She had 1 year of nursing education before marriage and has not worked outside of the home since. She is the second participant who had been a smoker. Her mother, father, and brother have a history of heart disease.

Summary of Participant Characteristics and Experience at Onset of AMI

PARTICIPANT	AGE	ON-SET			DELAY TIME FOR ER	ACTION WHILE WAITING	SYMPTOMS	FAMILY PRESENT	CO-EXISTING DISEASES	FAMILY HEART HISTORY
		TIME	PLACE	ACTIVITY						
1	80	AM	Mall	Walking	1 hr	Sat in chair in store	Pain in lungs, radiated to back	Husband	Hypertension Asthma, Arthritis	none
2	79	PM	Home	Sitting, Reading	1.5 hr	Alternated pacing and sitting in chair	Felt "different" Dizzy, drifting	Called daughter	Arthritis	none
3	75	AM	Home	Walking dog	1.0 hr	Walked home and sat in chair	Indigestion Pain in right arm, back of neck	Husband	Skin Cancer Arthritis	Father Brother
4	76	Late Night	Home	Going up stairs	2.5 hr	Lay on bed Elevated feet	Dyspnea, indigestion Chest pain, pain to back	Called son-in-law	none	Father
5	80	Late Night	Rehab Hospital	Sleeping	1.0 hr	Did deep breathing Rested in bed Sat in chair	Chest pain (no radiation)	Called husband & daughter	Arthritis	Father Sister
6	78	PM	Market	Shopping	1.5 hr	Sat in chair in Delicatessen	Severe nausea, vomiting Pressure at base of sternum	None	Diabetes Arthritis	Brother Mother
7	63	PM	Home	Watching TV	2.5 hr	Sat in front of fan	Felt heat, burning back pain Dyspnea, tired, perspiring	None-woke up son	none	none
8	55	Night	Home	Reading in bed	1.0 hr	Walked in room, woke husband to take to hospital	Esophageal spasm Dyspnea, throat ache, Back and jaw pain	Husband	Diabetes	none
9	73	AM	Home	Moving furniture	6.0 hr	Paced alternating with sitting	Chest pain, freezing cold "White as a Ghost"	None	Hypertension	Father
10	60	AM	Gift Shop	Moving card stock	1.0 hr	Sat Smoked cigarette	Heartburn, felt very hot "White as a Ghost"	Husband & Daughter	none	none
11	75	3:00 AM	Home	Sleeping	3.0 hr	Dressed, planned Sat in chair	Chest pain, dyspnea Arms dead weight	Granddaughter	History of Blood clots	Father Mother
12	65	AM	Home	Dressing to see dentist	2.0 hr	Smoked cigarette while waiting Sat in chair	Cold sweat Chest fullness	Called Daughter	Arthritis	Brother Father Mother

Appendix C
CONSENT FORM

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Appendix C
CONSENT FORM

Project Title: The Lived Experience of Women Prior To Hospitalization for an
Acute Myocardial Infarction

Investigator: Ilamae R. Hughes, RN, MA, MN (619) 755-1007

Ms. Hughes is a doctoral student conducting research for a doctoral dissertation at the University of San Diego, Philip Y. Hahn School of Nursing.

The purpose of this research project is to increase nurses' understanding of women's life experiences immediately prior to hospitalization for an acute myocardial infarction or heart attack. Each interview will last approximately one to two hours and will be audiotaped with privacy maintained in the transcription of the audiotape.

I will be asked to describe what happened to me immediately prior to my hospital admission, including any symptoms, feelings, and emotions I experienced during that time period. The transcription will be checked against the audiotape of the interview for accuracy. I will be free to telephone the researcher with any additional information that I wish to add to the interview. There may be no direct study benefits to me, but the results of the study may influence the future care of women with heart disease and acute myocardial infarction. I understand that there may be an emotional risk in reliving the

experience but that there will be no health risks to me resulting from my participation in the research.

I hereby give permission to be interviewed and for these interviews to be tape-recorded. I understand that the tapes will be kept in a locked cabinet and at the completion of the research, the tapes will be erased. I understand that the information I provide may be included in published reports as part of group data, but that my name will not be associated with the research in any way.

I understand that I am free to choose not to participate in the study, or to withdraw my consent at any time without affecting my medical treatment in any way. I have been given the opportunity to ask whatever questions I desire, and all such questions have been answered to my satisfaction.

Participant _____

Researcher _____

Researcher's Phone Number _____

Date _____

Appendix D**DEMOGRAPHIC DATA COLLECTION FORM**

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"The Lived Experience of Women Prior to Hospitalization For Acute Myocardial Infarction"

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