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Recovery of Midlife Women From Myocardial Infarction

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To the Graduate Council:

I am submitting herewith a dissertation written by Sherri Linn Stevens entitled "Recovery of Midlife Women From Myocardial Infarction." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Nursing.

Sandra Thomas, Major Professor

We have read this dissertation and recommend its acceptance:

Ralph Brockett, Josephine Wade, Susan Speraw

Accepted for the Council:

Dixie L. Thompson

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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Carolyn R. Hodges, Vice Provost and
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RECOVERY OF MIDLIFE WOMEN FROM MYOCARDIAL INFARCTION

A Dissertation

Presented for the Doctor of Philosophy Degree

The University of Tennessee, Knoxville

Sherri Linn Stevens

May 2008

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DEDICATION

This dissertation is dedicated to my family. To my husband Larry who has spent long hours assisting me with work, classes, students, and family life, I appreciate the support.

To my children Robert and Brittany, you have been with me every step of the way and you are always in my heart.

For those who began the journey with me but did not see it completed, your memories are ever present.

Gladys Pearle Keeling, my loving Grandmother

Lottie Earl Lewis, my loving Grandmother

William S. Stevens, Father-in-Law

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Finally, I would like to thank all of my friends who have encouraged me along the way.

ABSTRACT

The purpose of this study was to describe the experiences of midlife women who have experienced a myocardial infarction and returned home to recover. A phenomenological research method based on the philosophy of Merleau-Ponty was used for the study. The researcher interviewed 8 women ranging in age from 45 to 65. The interviews were transcribed and analyzed using the approach of Pollio and Thomas. Most of the transcribed interviews were read and discussed in the Phenomenology Research group. A thematic structure was identified from the shared themes of the women participants. For the women in this study the experience of the myocardial infarction and the recovery must be understood within the existential grounds of body and others. Four themes were common among the women survivors including: (1) Interference, (2) Freedom/Unfreedom, (3) Knowing/Not knowing and (4) Living in fear. Findings of this study suggest women need to be better educated before leaving the hospital. Returning home post myocardial infarction is a difficult time for women and they need to be better educated by health care professionals. The women in this study felt a support group for women myocardial infarction survivors was needed.

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CHAPTER I

Chest discomfort begins vaguely. She is very fatigued. She has been tired for days. Perhaps she is short of breath intermittently. She is not sure of what to do. She makes phone calls to friends to gain support and discuss symptoms before ever going to the emergency department. Finally, she becomes uncomfortable, nauseated and anxious. After arriving to the emergency department, often by car and occasionally by ambulance, she is overwhelmed with the bustle of activity. Suddenly she is being asked numerous questions as she is changing into a hospital gown and is being subjected to invasive medical procedures. Blood pressure readings, intravenous insertion and access for multiple tubes of blood are happening quickly. An intravenous line has been established, “because you may need it.” There is nasal cannula tubing applied to provide oxygen, cardiac monitor leads applied to her bare chest and then attached to the cardiac monitor to display a heart rhythm. She continues to be asked questions, yet the nursing staff may not be listening to everything that she is saying. The nurses think they already know.

The nurses are listening and observing the range of equipment, the cardiovascular rhythm displayed on the now attached monitor, the color of the skin and the hemodynamic monitoring. She continues to be anxious, afraid and unsure of what is going on. Next, they roll in a portable machine with numerous electrodes, “we need to get an electrocardiogram.” She complies because she doesn’t dare voice refusal. Other events are happening but she lies silently on the hard stretcher with the bright lights beaming down. The room is cold, there are occasionally loud beeping noises produced by the

cardiac monitor, and she is told not to worry. She is given medications such as morphine through the intravenous line, so she feels a little better. She is told to chew an aspirin, because she needs to. She complies with every command, although she may not understand the rationale for doing so.

Finally, the physician walks in to the room. “You are having a heart attack.” She doesn’t understand. How could this be? The nurses remain active, going back and forth to other rooms, yet carefully observing her. She is eventually taken to another place, perhaps an intensive care unit where she will be observed for the next 24 to 48 hours before going to a regular hospital room. She does not fully comprehend all that has happened. It has taken place so quickly and no one has really explained all of the details. The institution, the staff, especially the nurses have performed at gold standards as far as chest pain protocols are mandated according to the American Heart Association. Due to the success of the staff, the quick interventions and nursing care, she is still alive. She cannot believe she has had a heart attack.

Scope of the Problem

According to the American Heart Association (AHA) (2008) 3.0 million women have a history of a myocardial infarction (MI) or recurrent MI based on the 2004 statistics. The complications post MI for women can vary depending on the age of the woman, as well as other coexisting diseases or health related problems. Women are more likely to die from coronary heart disease than any other health condition (AHA, 2008). It has been documented that women develop coronary heart disease symptoms and may experience a first MI event about ten years later than men (AHA, 2008). The average age

of first time MI in men is 65.8 (AHA, 2006) and for women the average age is 70.4 (AHA, 2006). However, 10% of women with cardiovascular disease are between the ages of 45 to 64, and recent statistics claim 9,000 women under the age of 45 experience an MI annually in the United States (AHA, 2006). It is the group of midlife women that will be the focus of this study.

The experience post MI for midlife women has not been well documented. Most of the existing research focuses on the older woman. Midlife women age 45 to 65 also experience cardiovascular disease and MI's. Vaccarino, Parsons, Every, Barron, and Krumholz (1999) reported that women under the age of 50 are twice as likely to die from an MI when compared to men of the same age. Little is known about MI experiences or concerns of this age group. Midlife women have numerous roles and are entering a new phase in life physiologically as well.

Complications that may occur post MI are likely to impact women in many ways (Abby & Stewart, 2000; Brink, Karlson, & Hallberg, 2002). When women return home post MI, unplanned psychosocial sequelae such as depression and anxiety may occur (Conn, Taylor, & Abele, 1991; Frasure-Smith, Lesperance, & Talajic, 1995; Rankin, 2003; Varvaro, 2000). When women return home post MI they are faced with many issues and concerns during recovery and transition such as caring for children, grandchildren, or sick family members (Crane & McSweeney, 2003). They are faced with emotional issues, physical issues, role transition issues, and the return to some form of normalcy (Walton, 2002). Midlife women may find the transition post MI to be especially difficult.

Once women return home after having an MI, their roles and responsibilities may impact the recovery phase. Women often have no assistance with the responsibilities of caring for children and cleaning the house, and some also work outside of the home (Doiron-Maillet & Meagher-Stewart, 2003; Hamilton & Seidman, 1993). Lifestyle changes post MI such as diet modification, reducing stress, and physical exercise are to be incorporated into the recovery phase for women. The ability to make these lifestyle changes will impact the quality of life for women post MI. After being discharged from the hospital the woman is physically mending from the trauma and stress of the MI on the body and experiencing weakness and fatigue (Kerr, Fothergill-Bourbonnais, 2002). She has returned to the home to rest and recover. For most women however, the home is a work environment not a place to rest.

Reports about the experience of midlife women returning home post MI are scarce in the literature. There is a gap in the knowledge for nursing regarding this age group of women post MI. Therefore, midlife women's experiences need to be examined post MI. How midlife women cope and survive post MI, while wearing many hats, is not well documented nor understood by others.

Historical Perspective of Women and Heart Disease

It has been well documented that women were excluded from cardiovascular research for decades (King & Paul, 1996; Miller & Kollauf, 2002; Thomas & Braus, 1998). For many years the focus and attention of researchers regarding cardiovascular disease has been the response of men. Until recently, most research has focused on the

symptoms, diagnostic procedures, surgical interventions, and response to medications for cardiovascular events in the male population.

Famous studies that did include women in cardiovascular research include the Framingham study as well as the Coronary Heart Disease study from Rochester, Minnesota. The Framingham study began in 1948 and continues today. The study evaluates coronary heart disease in women and men as well as risk factors and family history (Haynes & Feinleib, 1980; Ridker, Burning, Cook, Rifain, 2003; Rutter, Meigs, Sullivan, D'Agostino, & Wilson, 2003; Wang, Nam, Wilson, et al., 2002). Another famous study, The Rochester study, began in 1950 and examined women and heart disease risk factors. While estrogen was found to decrease coronary heart disease in women aged 40 to 59, cigarette smoking was a risk for the disease (Beard, Kottke, Annegers, & Ballard, 1989).

In the mid to late 1980's the National Institute of Health established new guidelines for including women in research (Miller & Kollauf, 2002). Researchers have begun to recognize the need to evaluate women and their response to cardiovascular disease as well as MI's. Women do not exhibit the same cardiac symptoms as men (McSweeney, Cody, O'Sullivan, Elberson, Moser & Garvin, 2003; Rose, 1998), nor do they respond to medications in the same manner that has been reported by men. There is an increased mortality associated with women post MI when compared to men (AHA, 2008; Heim, Brunsell, 2000; Shaw, Miller, Romeis et al. 1994).

Nurse researcher Jean McSweeney has spent several years researching women with cardiac disease including identifying prodromal symptoms of coronary events, delay

in seeking care, and cardiac rehabilitation. McSweeney has received national honors and recognition for her work with women, receiving several grants from the National Institutes of Health. McSweeney's research will be described in greater detail in chapter two. My research will be different from McSweeney's in that I plan to focus on midlife women survivors of first time MI and their experiences after returning home.

Research Problem

Due to the past history of over emphasis on medical studies involving men, more focus must be placed on women. There are many components of women's responses to first time MI. How do midlife women adjust or cope after surviving an MI? What are common themes among this group of women? What do midlife women perceive and experience after an MI? Each of the mentioned questions could provide useful information for healthcare providers. Some studies have focused on older women post MI (Crane & McSweeney, 2003). There are few studies, however, that have exclusively focused on midlife women and their lived experience post MI when returning home from the hospital.

Purpose Statement

The purpose of this existential phenomenological study is to understand the experiences of midlife women who have returned home after a first time MI.

Research Question

What is the experience of midlife women who have survived a first MI event and returned home?

Definitions

1. Myocardial infarction is defined as ischemic cellular changes with elevation of cardiac enzymes, Creatine kinase (CK) and Troponin, electrocardiogram (ECG) changes and admittance to a hospital with diagnosis of MI. For the purpose of this study, the woman's self-report that she had a heart attack will be considered sufficient, eliminating the necessity to obtain hospital records.
2. Midlife is defined for the purpose of this study as ages 45 to 65.

Inclusion criteria

1. Women aged 45 to 65 diagnosed with a first time myocardial infarction with no history of coronary artery bypass surgery will be invited to participate.
2. The MI must have occurred at least 6 months ago.
3. Women who have had a first MI event and an intervention such as stent placement or percutaneous coronary intervention such as PTCA will be included.
4. Women able to speak English and willing to share their experiences in a face-to-face interview will be included.

Exclusion criteria

1. Women who have had coronary artery bypass surgery post MI will be excluded from the study.
2. Women who have undergone heart valve surgical procedures will be excluded from the study.

3. Women who have already experienced an MI will be excluded.

Delimitations

Participants who met study criteria were identified via network sampling procedures from several communities in the middle Tennessee area.

Significance of the Study

Thousands of midlife women are experiencing first time MI events and coronary heart disease annually (AHA, 2008). The impact and the trauma of an MI can cause many complications for midlife women. Physiologically, these complications may include congestive heart failure, arrhythmias and depression to name a few. Psychologically, the results of an MI can impact midlife women emotionally causing increased anxiety and stress. Feelings of anxiety, stress, and depression in women post MI have been well documented (Moore, 1995; Svedlund and Danileson, 2004). It is important to gain a better understanding of the events that occur during the recovery phase as well as the adaptation or return to routine daily living for midlife women. This study may indicate that women may need more education, more support, and better understanding from health care providers. Information gained from the study can be used to better educate midlife women prior to being discharged from the hospital. The general public could gain knowledge about perceptions of women who have experienced an MI. Midlife women across the nation need information and support for the traumatic experience of an MI event.

Summary

In summary, this study will contribute to nursing knowledge by identifying the concerns and needs of midlife women post MI. Nursing impacts the entire range of the hospital experience for the MI patient. When the woman arrives at the emergency department for initiation of care, it is the nurse who will assess and initiate standard protocols such as oxygen, intravenous access, and electrocardiographic recordings. After leaving the emergency room, it will be a nurse who will once again admit and assess the woman to a new unit. As orders are written or procedures are ordered, it will be the nurses who will prepare the women and explain the details. Finally, when the woman is discharged from the hospital to return home, it will be a nurse who will provide the discharge instructions. Thus, the role of nursing is critical for educating and assisting women post MI. Providing information and teaching is crucial if women are to return home better prepared to face lifestyle changes and recovery.

CHAPTER 2

REVIEW OF THE LITERATURE

According to the American Heart Association (2008), more women die from acute coronary episodes such as myocardial infarctions (MI) than any other disease. Myocardial infarctions are often more fatal in women than in men (AHA, 2006; Heim & Brunzell, 2000; Lukkaninen & Hentinen, 1997; Shaw, Miller, Romeis et al., 1994; Vaccarino, Krumboltz, Yarzebski, Gore, Goldberg, 2001; Young & Kahana, 1993). Issues surrounding women and cardiovascular disease are beginning to gain international attention due to the lack of knowledge regarding women's cardiac health. In the past, most cardiovascular research has been conducted with men participants. Yet, most of the past research findings have been generalized to women. Some cardiovascular disease research has compared men and women or has utilized low numbers of women participants. Some studies have incorporated coronary artery bypass surgery, interventional radiology, or other revascularization procedures along with MI's (Karner, Tingstrom & Bergdahl, 2005). Each invasive procedure has unique characteristics and produces responses that may differ for men and women. Thus, it would seem inappropriate to group multiple diagnostic interventions together for data analysis.

For this literature review searches have been conducted using various databases such as Cumulative Index of Nursing and Allied Health Literature (CINAHL), Medline, ERIC, PsycINFO, EBSCO and OVID to identify research studies focusing on midlife women who have survived a first time MI. Thousands of articles and research studies have been identified through the literature search, however many of the articles included

men and focused primarily on the responses of men. Some of the articles focused on treatment interventions, medications, and older women (Crane & McSweeney, 2003; Kerr & Fothergill-Bourbonnais, 2002). Many of the articles are based on women who have undergone coronary artery bypass surgery. Thus, there is a gap in the literature regarding midlife women and their experiences post MI.

This chapter will address many aspects of women and cardiovascular disease. There will be a brief overview of how feminist theory has been applied to past nursing research regarding women and cardiovascular disease. Next there will be a brief discussion of chest pain and MI symptoms experienced by women including issues surrounding diagnostic decisions of care providers. Research on immediate post MI recovery for women will be presented as well as research on issues with depression. There will be discussion regarding the roles of women and the psychosocial impact on their spouses and families post MI. Finally, there will be comparisons according to women's ages. The literature provides evidence of similarities as well as differences between different age groups of women survivors of MI. To conclude the chapter, literature about midlife developmental challenges will be reviewed.

Feminist Theory Applied to Nursing Research Regarding Women and Cardiovascular Disease

Hall and Stevens (1991) outlined some components applicable to feminist research. These components include appreciating and valuing women and their experiences. Also discussed was the ability to identify oppressive conditions experienced by women as well as a method to initiate change for social improvement of women.

Other feminist issues were discussed in the paper as well (e.g., Campbell & Bunting, 1991; Duffy, 1985). For example, characteristics of a feminist perspective included (a) women and gender issues being the central concern for research, and (b) the benefit of research answers is for women versus about women.

McCormick and Bunting (2002) reviewed nine qualitative studies regarding women and cardiovascular disease. To apply feminist theory to women and cardiovascular disease they identified six questions necessary to evaluate data. The six questions included the following (McCormick and Bunting, 1997, p. 824):

1. Does the research report have a stated or strong implied purpose of benefiting women?
2. Is there evidence of valuing of women and women's experiences, ideas, and needs?
3. Is there an expressed or implied recognition of the structural, interpersonal, and ideological conditions that oppress women?
4. Is there evidence of commitment to social change?
5. Is there a representation or statement of awareness of human diversity?
6. Does the report include a portrayal of women's strengths?

Using the questions as a guide was useful in examining the nine studies all done between 1994–1999. All of the studies were done to help women and to gain knowledge regarding their experiences. Six of the nine did not claim feminist orientation in the research. Issues of oppression of women, diversity, and women's roles in the home were discussed in relation to cardiovascular problems. Other concerns were (a) issues surrounding

hormones and menopause, (b) women's chest pain as abnormal or atypical, and (c) the everyday world of women.

McCormick and Bunting (2002) discussed women's health needs regarding cardiovascular disease and MI as well as the need to improve health care delivery for women diagnosed with MI. The authors also proposed that the home environment may be a risk for women during recovery post MI. They compared this scenario with sending men post cardiovascular event to their work environment for recovery. Overall, this historical review with a feminist theoretical approach was very well done. It is important to realize that there are many components of women's response to cardiovascular disease to be discovered. Applying feminist theory to study women post MI recovery is needed in future research.

Physiologic Differences between Men and Women in MI Symptoms

Chest pain can be a common symptom of an MI, but women may not experience classic chest pain. Women's descriptions of chest pain symptoms vary and are different when compared to men. Women often describe chest pain symptoms as sensations that radiate to the back, elbows, and jaw as well as nausea and vomiting (Goldberg, Goff, Cooper, Luepker, Zapka, Bittner, Osganian, Lessard, Cornell, Meshack, Mann, Gilliland, & Feldman, 2000; Milner, Funk, Richards, Wilmes, Vaccarino, Krumholz, 1999). Due to the location and description of symptoms, many women are misdiagnosed initially (Vaccarino, Parsons, Every, Barron & Krumholz, 1999). Women also complain of fatigue and weakness prior to the actual MI. McSweeney (2003) has identified feelings of weakness and fatigue symptoms as prodromal to the MI. Often women delay seeking

emergency medical treatment when experiencing chest pain, possibly due to a lack of knowledge regarding cardiovascular disease, although many factors may influence their decision making process (Ashton, 1999; Dracup & Moser, 1991; McSweeney, Cody, O'Sullivan, Elberson, Moser & Garvin, 2003; Rosenfeld, 2001). When women delay seeking emergency medical treatment due to self diagnosis or other health care beliefs, delay can be critical in terms of prognosis.

Diagnostic and Treatment Differences between Men and Women

After seeking medical assistance women are often misdiagnosed and are less likely to receive diagnostic procedures and interventions when compared to men. Many studies have revealed gender differences in diagnostic treatment (Beery, 1995; Finnegan, Meischke, Zapa, Leviton, Meshack, Benjamin-Garne Estabrook, Hall, Schaeffer, Smith, Weitzman, Raczynski, & Stone, 2000; Gan, Beaver, Houck, MacLehose, Lawson, & Chan, 2000; Murray, O'Farrell, Huston, 2000; Richards, Reid, Watt, 2002; Schoenberg, Peters, Drew, 2003; Schulman, Berlin, Horliss, & Kerner, 1999; Weitzman, Cooper, Chambless, Rosamon, Clegg, Marcucci, Romm, & White, 1997; Yarzebski, Col, Pagley, Savageau, Gore, & Goldberg, 1996). For example, Gan et al., (2000) conducted a study using data from the Medicare Cooperative Cardiovascular Project to identify gender differences in the treatment and short term mortality of acute myocardial infarction. Between 1994 to 1995, 138,956 patient charts (49% from women), were used to collect information. Multivariate statistical analysis was used to identify differences between the women and men with regard to procedures, medications, and do-not resuscitate orders. The results revealed that women were less likely than men to undergo

cardiac catheterization (adjusted relative risk, 0.94; 95 CI, 0.92 to 0.96), and less likely to receive thrombolytic therapy within one hour (adjusted relative risk, 0.93; 95 CI, 0.90 to 0.96), or aspirin within 24 hours (adjusted relative risk, 0.95; 95 CI, 0.94 to 0.96).

Using logistic regression analysis on records from the National Hospital Discharge Survey for the years 1988 and 1998, Travis (2004) identified an increased amount of coronary artery bypass surgery performed on men as compared to women who were hospitalized with similar cardiovascular diagnosis. Men and women were predicted by a model to receive coronary artery bypass surgery according to key diagnostic patterns. According to the results of the study for the year 1988, 12 % of women received the surgery compared to 24% of the men. In 1998, 20% of women had surgery compared to 33% of the men. These comparisons revealed gender inequities regarding diagnosis and treatment for cardiovascular disease.

In a more recent gender comparison study, Chiaramonte and Friend (2006) compared the use of diagnostic testing and referral for cardiology services. The participants included 56 medical students who were given vignettes about patients complaining of coronary heart disease symptoms. The independent variables in the study included gender and cardiac symptoms with and without stress. The vignettes also contained other risk factors and descriptions such as age and weight. The medical students also answered questionnaires regarding the vignettes which measured the dependent variable of referral of the patient for hospitalization and referral for lab analysis. The medical students answered the Shortened Attitudes toward Women Scale (1973), a 25 item tool used to assess attitudes and roles about women. The study was

replicated with 82 advanced medical students. Both studies identified significant gender differences. The female patients received lower diagnosis and cardiology referrals than men. When stress was added to the cardiac symptoms the focus of care shifted to psychological concerns for the women, thus decreasing referral to a cardiologist. The results of the study suggest that women with cardiac disease may not be referred to cardiology services, and therefore a delay in treatment could contribute to poor outcomes. This study continues to demonstrate the gender differences that exist in the diagnosis and treatment of the number one disease in America.

Post MI Concerns

Little is known about midlife women immediately after returning home post MI, although a study by Jackson, et al. (2000) was informative. The study was conducted to evaluate the immediate post MI recovery phase among women. In this study ten women post first time MI were interviewed at seven, fourteen and twenty one days post MI. The purpose of the study was to address specific research aims such as discovering the needs of the women immediately post discharge, source of support, identification of unmet needs, recovery trajectory, and how nurses could support women post MI. A feminist framework was used for the study. The women were first contacted during the hospital stay. Two researchers did the interviewing of all the participants. All of the interviews were audio taped. The data obtained from the women was most interesting. One week post discharge the women described feelings of fear and uncertainty. Fears included death, activity safety, and family well-being. The study reported that the women

described the initial discharge from the hospital as a time of physical exhaustion and depression. One woman stated, "I have to cut back my lifestyle."

At the second week post hospital discharge, participants in the study by Jackson et al. (2000) reported feeling stronger and some fears had decreased. They did continue to have concerns for their families. There was discussion regarding household duties and a sense of returning to work. It was also discovered during this time that the women began to discuss lack of information regarding their illness. After three weeks post discharge from the hospital, the women continued to have feelings of fear. One woman had returned to work and discussed feeling tired and stressed. At this time during recovery the women were reflecting back to the hospitalization and beginning to feel that they were not given adequate information regarding their illness and what to do after returning home. The women may have experienced recall problems regarding information received while in the hospital.

Many of the women wanted to make lifestyle improvements but were not interested in cardiac rehabilitation programs. Another issue discussed by women was the lack of education about their heart attack and the need for access to information at all times. The researchers noted that the needs of the women changed during the recovery process. How women feel post MI truly needs to be further explored by nursing research. Feelings of fear and uncertainty can create additional stress for the women during recovery. The expressions of uncertainty regarding daily decisions along with the fear of making the decisions can impact the mental and physical well being of every woman.

This study was very well done and should be repeated to determine if the same needs and problems are identified in another sample of midlife women.

Hamilton and Seidman (1993) compared the recovery period for women and men after an acute MI. A sample of 20 women and 42 men participated in the study by answering questionnaires sent in the mail. The age of the participants ranged from 34 to 91. The mean age for women was 62 years and 55 years for the men. Some of the participants had experienced more than one MI. The specific type of MI was identified and listed as anterior for four women and 17 men, subendocardial for eight women and eleven men, inferior for six women and 12 men. The participants identified activities on the questionnaires. When comparing activities between the men and women, there were higher percentages of women who engaged in household activities. These activities included specifics such as washing the dishes, making the bed, cooking meals, sweeping, and laundry. The results indicated that more women returned to household activities within four weeks post MI as compared to the men. It was noted that men participated in outdoor work, but this was not defined in the discussion of the study results. Hamilton and Seidman did note that discharge instructions given by health care providers may not define “work” to MI patients. Thus, women may not see household chores as work. Although this study was conducted in 1993, it identified an interesting element of discussion for nurses involved in discharge teaching for MI patients. For example, work may be perceived differently by men and women.

In a different study, Riegel and Gocka (1995) compared the responses, the cardiac functional class, and return to work with a sample of men and women post MI. A

convenience sample consisting of 32 men and 32 women were matched according to neuroticism and cardiac functioning scores. According to Riegel and Gocka, the participants were matched after obtaining scores on the neuroticism scale of the Eysenck Personality Questionnaire, a 90 item instrument to measure such concepts as psychosis, neurosis, and lying, among other personality characteristics. Although sample scores of the men and women were matched, the author admitted that it was difficult to adequately match the groups. Other instruments used in the study included the Self Perception Inventory (36 item) to rate or score self esteem and the Profile of Mood States (65 items) to identify emotional distress. Also used was the General Health Perceptions Questionnaire (22 item), an Interpersonal Dependency Inventory (48 item) and the UCLA Social Support Inventory (69 item). A cardiac function tool was used to obtain information from charts. Each instrument was used at one and four months after discharge from the hospital to obtain data.

According to the study there were no statistically significant differences between men's and women's mean neuroticism scores and mean cardiac dysfunction scores. Prior health rating, an item on the Health Perceptions tool, did reflect an interaction between the variables of gender and time. Social support was identified at one month as being reported more by women but apparently no statistical differences were obtained in the amount of support received by either group. The men had a significantly better cardiac functional status one month post discharge than the women reported. Overall this study indicated that men and women have similar adjustments during recovery post MI.

Psychosocial Issues and Concerns after MI

Depression has been identified as a common characteristic among many people who have experienced an MI. In some studies depression scores have been identified to be higher in women post MI (Conn, Taylor, & Abele, 1991; Frasure-Smith, Lesperance, Juneau, Talajic, & Bourassa, 1999). Depression may already exist in midlife women due to changes occurring in life as well as numerous responsibilities.

According to Moore (1995), feelings of depression and guilt contribute to the quality of recovery for women post MI. Moore compared men and women post coronary artery bypass surgery. The purpose was to learn about the recovery of individuals who have experienced coronary artery bypass surgery. A structured interview guide was used as well as telephone interviews. The participants were interviewed one day before discharge from the hospital, two days after discharge and finally at three weeks post discharge from the hospital. This study included 20 men and 20 women post first time coronary artery bypass surgery. The average age of the women was 67 and the average age of the men was 61.

A component measured in the Moore study was emotional symptoms. Contrary to the findings of Conn et al. (1991), men reported more depression. The women reported emotions such as worrying about who would assist them or care for them. The women also reported worry regarding taking care of the home. The women were older, unemployed, and unmarried. Three weeks post discharge from the hospital 70% of the women reported activities such as vacuuming, whereas the men did not. Sixty percent of

the women felt they were not able to walk and get out, but they had returned to household chores.

Frasure-Smith, Lesperance, and Talajic (1995), evaluated depression and other negative emotions in 222 participants selected from the Montreal Heart Institute. The purpose of the study was to explore symptoms of depression, history of major depression, symptoms of anxiety, anger, and perceived social support of participants post MI. The participants included 173 men and 49 women. The participants were interviewed between five and fifteen days after the MI. Research assistants used structured interviews. Also included were versions of the National Institute of Mental Health Diagnostic Interview Schedule (1981), the Beck Depression Inventory (1961), Spielberger's State-Trait Anxiety Inventory (1983), Spielberger's Anger Expression Scale (1988), and Blumenthal's Social Support Scale (1987). Other medical and demographic data such as ejection fraction values, cardiac disease severity, and previous MI were obtained from the patient's medical records.

Multiple logistic regression analysis was performed with the dependent variable being the cardiac outcome or post MI recovery of the participant while in the hospital and upon returning home. Results included 35 participants who met Diagnostic Interview Schedule (DIS) criteria for depression post MI. Also, 68 participants had BDI scores greater than or equal to 10 identifying symptoms of depression. The DIS odds ratio, 3.64; 95% CI, 2.42 to 25.26; $P = .0002$ was significantly related to the rate of mortality at 18 months post MI. The results indicated depression, anxiety, history of major depression, and anger may impact the recovery of the MI patient. Limitations of the study included

the small number of women participants; however, the authors stated that some women refused to participate in the study.

Depression was reported to be a predictor of quality of life after a cardiac event in a study conducted by Lane, Carroll, Ring, Beevers, and Lip (2000). In this study depression and anxiety were measured in 288 post MI patients while in the health facility and again four months after discharge. The participants were interviewed and given questionnaires while in the hospital. The instruments used included the Beck's Depression Inventory scale, the State-Trait Anxiety Inventory, and the Health Behaviors Profile. At four months the participants answered a quality of life questionnaire, and the Dartmouth Cooperative Functional Assessment Charts (COOP). The COOP is a tool used to examine health related quality of life, such as status of daily activities, or a change in quality of life. Data analysis included correlation and stepwise linear multiple regression using the SPSS program. The researchers concluded that depression and anxiety did not predict cardiac mortality; however, depression did predict quality of life among the participants.

In a different study Franche, et al. (2004) identified gender differences in illness intrusiveness one year after experiencing a cardiac event. Illness intrusiveness was defined as the impact of chronic health conditions and the psychosocial implications. The Illness Intrusiveness Scale, consisting of 13 items designed to examine lifestyle interference due to illnesses, and the Beck Depression Inventory were used in the study. Other tools used in the study included demographic and medical information data collection sheets. The sample consisted of 139 men and 104 women ranging in age from

60.8 to 64.1. The findings revealed that symptoms of depression identified during hospitalization were indicators of illness for men and women one year after surviving a cardiac event.

In a recent descriptive study conducted by White and Groh (2007), depression and the quality of life after an MI was explored in a sample of 27 women with a mean age of 60.7 years. The women were recruited from cardiac facilities in the Midwest. The instruments used in the study were the Beck Depression Inventory (BDI) and the Short Form-36. The data from the BDI showed eleven or 41% of the women were found to have mild to moderate depression with scores of 10-18. Two women scored in the moderate to severe range with scores of 19-29. The women 60 years of age and younger reported higher mean depression scores. Pearson correlation coefficients were used to identify relationships between depression and quality of life in the women. The BDI indicated a significant negative correlation with the mental health component summary, but no correlation with the physical component summary. Limitations to the study include the fact that surveys were conducted from one month up to 35 months post MI, and there was no assessment of a history of depression in the women. The findings are consistent with a need to screen women post MI for depression since depression has been known to impact recovery.

The Interheart study (Rosengren et al., 2004), a Canadian led project which studied first time MI patients from 52 countries, evaluated risk factors that contribute to cardiovascular disease and MI. Risk factors examined included smoking, history of diabetes and hypertension, diet, waist ratio, activity, alcohol intake, blood apolipoprotein

and psychological factors. The study consisted of 11,119 cases and 14,820 controls. Risk factors such as stress and depression were common among the participants and responsible for 32.5% of the population at risk for MI.

Another facet to consider in post MI survivors is the spiritual or religious values identified and expressed by the post MI survivor. Surviving an MI may cause a person to search for comfort in their faith as well as search for social support from God and the church. In 2002 Walton investigated spirituality in men and women post first MI. Using a grounded theory research design Walton interviewed 9 men and 4 women ranging in ages from 41 to 75 years of age. The participants were recruited from a large Midwestern Episcopal tertiary care hospital. The patients were admitted to the critical care unit and while there they were invited to participate in the study. All of the participants were Caucasian. The purpose of the study was to determine if spirituality had meaning for the participants and how spirituality may have influenced recovery after an acute MI. According to Walton there were five phases experienced by the participants. The phases included, 1) facing mortality, 2) letting go of fear, 3) identifying and making lifestyle changes, 4) seeking God's purpose, and 5) finding meaning and purpose (Walton, 2002, p. 36). In the "facing mortality" phase the women discussed this phase as being in God's hands. Feelings of death, fear and anxiety over the impact of the MI were shared. The phase titled by the author as "letting go of fear," included episodes of receiving treatment by health care staff and trusting the staff. The support of a spouse was important to the participants in this phase. The phase of "identifying and making lifestyle changes" included an inner evaluation. The participants would self reflect on the pre MI phase of

life and identify how to improve, as well as communicate with God for support. The phase titled, “seeking God’s purpose” incorporated statements by the participants indicating that God has given them a purpose to live. Prayer and hope for the future were identified by the participants since God had spared their lives during the MI. The last phase identified by Walton was finding meaning and purpose. In this phase the participants discussed finding meaning in each day, slowing down and sharing with others.

In the Walton article, there was a greater emphasis on how the men felt. There were more men in the study and perhaps there was more information about the men. The men in the study were dependent on their spouses during the experience, whereas the women felt they had to reassure their families after the MI event. The findings of this study indicate that support and spirituality may impact healing post MI for some people.

Kristofferzon, Lofmark, and Carlsson (2005) performed a longitudinal comparative research study to identify gender differences relating to coping, social support, and quality of life post MI. In the study, data was collected using the Jalowiec Coping Scale, a questionnaire measuring social support, and the SF-36 Health survey form. The sample consisted of 60 women and 88 men. Patients were identified via medical records in a hospital in Sweden. The criteria consisted of having been admitted to an intensive care unit with a diagnosis of MI, living close to the hospital, and having no communication barriers. Questionnaires were mailed to participants at one, four, and twelve months post MI. According to the results contained in the report there were no statistically significant differences between men and women in relation to coping, quality

of life, or social network category. The researchers did point out that more women than men felt they had support from grandchildren and churches. The Quality of Life instrument reflected lower scores for women than men. Some of the limitations of the study included questionable reliability of the questionnaires for social network and social support. Kristofferzon stated the alpha coefficients were low for several items. Another limitation of the study was the sample size.

In another study conducted in Sweden by Karner, Tingstrom, Dahlgren-Abbrandt, and Bergdahl (2005), lifestyle changes for patients after a cardiac event were examined to determine behavior patterns. In this study men and women were grouped together and interviewed at six weeks and at one year post cardiac event. The participants were less than 70 years of age and the sample consisted of 84 men and 29 women. The cardiac event could be an MI, coronary artery bypass surgery, or percutaneous intervention. A structured interview guide was used to obtain information regarding physical exercise, diet, stress, smoking, and medications. After obtaining data from the interviews, categories were identified. The categories were determined from the patients' experiences of facilitating or constraining incentives or reasons for lifestyle changes. The categories included somatic incentives, social practical incentives, cognitive incentives and affective incentives. The somatic incentives category included body symptoms indicating improvement or illness. The social practical incentives category included items such as work and social issues that could affect exercise and diet. The cognitive incentives category incorporated routines or habits and the knowledge for decisions such as exercise and medication compliance. The affective incentives category included fear, self esteem,

and hesitation to face lifestyle changes. Data from the interviews identified the categories of affective, somatic, and social practical as causing difficulty with positive lifestyle changes in the participants. Issues such as family problems, work, and cost of medications contributed to the constraints of lifestyle changes for the participants. Self esteem issues and the inability to resist bad choices were identified as interfering with lifestyle changes. Only 29 women were included in this research, thus most of the results were obtained from the sample of men.

Women's Experiences of Family and Role Adaptation after MI

Varvaro (2000) conducted a clinical study to evaluate family and work role adaptation in women post MI. The women had to be 32 years of age or older and the mean age in the sample was 61. Utilizing Roy's (1984) identification of roles Varvaro identified the primary role of women as the role of the self. The secondary role of the women in the study is the role of mother, wife, or homemaker. In the study there were 122 participants who were randomly assigned to a treatment and control group. All of the women received three home visits from registered nurses. The treatment group of women received two teaching interventions, one at three months and the other at nine months. All of the women received questionnaires in the mail to evaluate role status at six weeks, six months, twelve months and eighteen months. Instruments used in the study to obtain data included the Patient Evaluation System of Sequential Instruction Nursing Protocol (PESSI). This protocol is a nurse driven method of instruction for patients. The Perceived Role Adaptation Scale (PRAS) was used to measure secondary roles involving work and family. The results of the study indicated that the treatment group demonstrated higher

scores for adaptation at eighteen months (81.1%) as compared to the control group (71.3%). Both groups had difficulty with the role of homemaker at six weeks and again at twelve months indicating the need for further investigation in this area. The Perceived Sexual Adjustment Scale (PSAS) was used to evaluate sexual adjustment of women post MI. The treatment group also had greater scores and adjustment to sexual activity. The data obtained in the study was analyzed using multivariate analysis of variance for the information obtained at the six week, six month, twelve month and eighteen month intervals. Varvaro noted that women experienced the most role difficulty during the first six weeks post MI.

Only one study was located that examined the impact of MI on both women and their partners. Svedlund and Danielson (2004) interviewed nine women post myocardial infarction and their partners to understand the lived experience. The women ranged in age from 47 to 57. The phenomenological study included interviewing the couples at three and twelve months post MI. Initially, the data was analyzed by using naïve reading, a process described by the authors to obtain meaning of the interviews. Through the naïve readings it was discovered that the couples did not discuss the illness with each other or how it affected the relationship. A process known as structured analysis was also part of the analysis to further clarify meaning and develop themes in the content. Two themes and eight sub themes were identified through the interviews. The first theme was described as “living in a changed life situation.” The sub themes for this theme included the partners showing consideration for another, living side by side, and desiring what to do. For the theme described as “living in a changed situation,” the women described

feelings of being overprotected. Under the sub theme “showing consideration,” the women did not want to talk about their illness with the partners nor tell them if they were having chest pain to keep them from worrying. For the sub theme of “taking responsibility,” the women reported issues relating to the men assuming more responsibility around the house, and this bothered the women causing them to feel that they were a burden to the family. For the sub theme “living side by side,” the women reported they would not discuss how they felt so they were merely living in homes side by side with their partners, creating loneliness.

The second main theme identified by Svedlund and Danielson was titled “looking to the future.” Sub themes for this main theme included feeling uncertain, feeling powerless, feeling limited, and feeling hope. A sense of uncertainty regarding the future was described. The women discussed living with a feeling of dread due to the illness. The sub theme of “feeling uncertain” also included the partners calling home from work to check on their wives. The sub theme of “feeling powerless” pertained to the women revealing feelings of failure, and not being the same person as the one before the MI. Overall the study identified that the MI had affected the partner relationship, and there was a constant fear of death. This study identifies important issues that may arise in the home setting post MI. The spouse or partner of the post MI survivor may also feel stressed or uncertain about the diagnosis and what it means to the members in the family. Findings of the study may prove relevant to the present investigation of midlife women.

Diversity Issues in Research on Women with MI

Although research has been done on women recently regarding cardiovascular disease and MI, cultural diversity is lacking in the findings. Most of the research has been on Caucasian women. Rankin (2002) conducted a research study to identify the physical and psychological differences between white women and African American women post MI. Data was collected by using several questionnaires. The Charlson Comorbidity Index (CCI), a tool consisting of 19 items, was used to score comorbid conditions by the women. The cardiac functional status was obtained using the Duke Activity Status Index (DASI), an instrument designed to rank activities performed by the women such as ambulation and household tasks. The Profile of Mood States, a 30 item questionnaire, was used to determine moods such as anger and depression. The Pearlin Mastery Questionnaire was used to obtain information about life and individual control. The Support Requirements Interview (SRI), a 22 item tool, was used to assess care giving activities.

A sample of 76 women, 81% white, 19% African American, participated in the Rankin study. The women ranged in age from 61 to 81. Statistical analysis including repeated measures of analysis of variance and multiple regression were used to examine data. The DASI scores for the white women were higher than the scores for African American women. There were no significant differences between the groups of women regarding the POMS scores. There were no between group differences in scores on the Mastery questionnaire. Six weeks post MI variables such as age, social support, and mastery could predict 42% of the variance in the category of functional abilities. Race did

not contribute to recovery. Both groups of women experienced similar recoveries during the year. The African American women did report more comorbid conditions such as hypertension and diabetes. A flaw of this study is the disproportionate number of white participants.

Hart (2005) performed an integrative review of the nursing research to identify women's perceptions of cardiovascular disease. She examined nine studies that explored five research questions surrounding women's health and cardiac issues. The questions included: What is known about women's perception of the disease? Do women practice health promoting behaviors? Are there barriers identified by women to prevent health promotion? How do women know about cardiovascular disease? Are there age and race issues that have been identified in women? Hart concluded that women did identify risk factors such as diet, family history of coronary disease and hypertension, but overall women did not realize the impact of personal risk factors. Hart also identified barriers related to health promoting behavior of the women. Family responsibilities and time issues were identified most often by women as barriers to participate in health promotion. Hart also discovered that lack of participant diversity among the nine articles was an issue of concern for researchers. After reviewing the articles, it was noted by Hart that greater than half of the studies contained at least 80% Caucasian women. One survey was 100% African American (Walcott-McQuigg, 2000). Two other studies included Hispanic women or women categorized as "other" races, thus, not all women have been well represented in the literature.

Research on Older Women and MI

Older women who have MI's have been researched more than younger aged women. In addition to cardiovascular disease, older women have more health care problems than younger women. As alluded to earlier, midlife and younger women have different problems associated with their age such as care-giving responsibilities for children when compared to the older women. Nevertheless, the literature about older women is useful to consider.

In 2003 nurse researcher Jean McSweeney and her colleagues conducted a retrospective multisite study of women post MI to determine early warning symptoms women experience prior to being diagnosed with an MI. In the study 515 women diagnosed with an MI participated. The women were categorized as older with a mean age of 66. The instrument used for data collection was the McSweeney Acute and Prodromal Myocardial Infarction Symptom Survey (MAPMISS). The instrument was developed by McSweeney and used in several studies. Content validity has been established (McSweeney, O'Sullivan, Cody, Crane, 2004). The MAPMISS lists symptoms which are rated by the participants. The symptoms or descriptors listed on the MAPMISS have been weighted and scored for severity.

The women in the study were surveyed via telephone using the MAPMISS four to six months after being discharged from the hospital. Data were collected by the research team for three years. The most frequent acute symptoms were shortness of breath 57.9%, weakness 54.8% and fatigue 42.9%. The most frequent prodromal symptoms experienced by the women greater than one month prior to the MI were unusual fatigue 70.7%, sleep

disturbance 47.8%, and shortness of breath 42.1%. The average prodromal score, symptoms that were weighted by frequency and intensity, was 58.5 ± 52.7 . The scores correlated $r = 0.61$, $P < 0.001$. Prodromal scores were significantly associated with risk factors except for the items of age > 50 , hyperlipidemia, and hypertension. Acute scores were significantly associated with risk factors except for hypertension, second hand smoke, and hyperlipidemia. The multiple regression analysis found that the prodromal score accounted for 33.2% of the variance in the acute symptom scores. The study revealed that 95% of the women reported fatigue and sleep disturbances one month prior to the MI as well as shortness of breath, indigestion, and anxiety. Also, 43% of the women did not complain of or experience chest pain along with the MI. According to McSweeney, et al. (2003), prodromal symptoms may be helpful to identify women with coronary heart disease and may be descriptions of an acute MI. Further research is needed on other groups of women in the future using the MAPMISS for identifying prodromal symptoms.

With a different sample Crane and McSweeney (2003) conducted a study to evaluate older women and lifestyle changes after MI. The study was designed to evaluate older women who did not participate in a cardiac rehabilitation program after MI. The study was a purposive sample consisting of a sample size of fifteen women age 65 and older all post MI. Of the sample 60% were white and 40% were African American. The instruments used to obtain data in the study included the Demographic and Health Status Form (DHSF), the Geriatric Depression Scale, and interviews. The results of the study identified certain lifestyle changes for older women post MI. Some of the changes as

described by the authors included physiologic issues, health decisions, and changes. In the physiologic issues category, fourteen of the women reported a decrease in energy and felt very tired. The women also described feeling sleepy and experiencing shortness of breath. In regards to the changes in health, the women reported trying to make dietary changes and to quit smoking.

Also, post MI the women in the study reported feelings of fear. Six of the women discussed feelings of having another heart attack and not wanting to be left alone. Some of the women were afraid to continue to take care of their grandchildren. One woman reported that she was afraid to “venture out” since she had survived the MI. Three of the women described feeling nervous and crying often post MI. This study was important because it concerned the feelings and frustrations of older women post MI. The women reported that the lack of energy impacted their ability to perform activities of daily living and care-giving responsibilities for spouses and grandchildren. The women in the study had more co morbidities and had been prescribed more medications during recovery. The study was very valuable for identifying common threads of concern and post recovery phases for older women. It is important for health care providers to realize and consider that the post recovery time can be stressful for women.

Another study that focused on older women was performed by Kerr and Fothergill-Bourbonnais (2002). In this phenomenological study the lived experiences of older women post MI were examined. The participants included seven women ranging in age from 67 to 86, all Caucasian and all survivors of a first time MI. The researchers met with the women and audio taped interviews with the women. The authors referred to the

data from the study as a “mosaic” after listening to the women discuss their experiences. Many themes and sub themes emerged from the interviews. Four broad themes were identified including “life is scattered,” “trying to make sense of it,” “learning to live with it,” and finally, “getting settled.” Under the theme of “life is scattered,” the women described feelings of being overwhelmed after the MI and being shocked by the diagnosis. Sub theme categories detailing feelings of restriction and frustration were described by the women due to inability to resume simple activities of daily living. The theme of “trying to make sense of it,” identified the women’s feeling of the symptoms they remembered as well as living with the changes that had occurred in the body. Sub themes in this category captured the women reviewing or comparing their lives before and after the MI. The third global theme from the study was “learning to live with it,” including a sub theme of “playing by the rules,” according to health restrictions. However, the women discussed moments of cheating by having salt at various times, even though it was against the dietary rules. Finally, the broad theme of “getting settled” discussed the women’s feelings of feeling better and moving forward. The most frequently discussed symptom post MI by the women was a sense of feeling fatigue and weakness. Kerr and Fothergill-Bourbonnais (2002) have made a contribution to nursing by performing their important work with older women post MI. It is important to know and try to understand the many phases of recovery for women post MI—little is known about how they experience recovery after being discharged from hospitals.

In a different study including a wide range of ages of women, McSweeney, Lefler, and Crowder (2005) conducted a qualitative research project using a convenience

sample of forty women. The women ranged in age from 27 to 79 and had experienced an MI. Five main themes were identified and categorized into prodromal, acute, and overall timeframes. The five themes included awareness, seeking treatment, frustration, treatment decisions, and anger. The prodromal time consisted of elements of symptoms and the time according to the women when the symptoms began. Sub themes under the prodromal timeframe included the awareness time for the women, seeking treatment time of the women, and moments or times of frustration for the women. The next theme was identified as acute and consisted of when the acute symptoms began up to the diagnosis. Finally, anger was a theme and associated with the previous timeframes of prodromal and acute for the women.

During the prodromal timeframe a theme of awareness was identified. This theme captures the time of the women realizing and recognizing the fact that something was wrong. It consisted of the women going through evaluations of the self and experiencing feelings of denial, self awareness, and seeking advice. The women were experiencing symptoms but did not understand what was going on. The women then sought treatment and were not taken seriously by health care professionals only to return when the symptoms worsen.

The acute timeframe occurred when the women experienced an increase in the severity of their symptoms and the theme of treatment was identified. In the acute timeframe decisions surrounding where and how to seek medical treatment are discussed. The women were forced to make decisions regarding treatment. Finally, the theme of anger emerges. It is a combination of prodromal and acute timeframes and emotions

surrounding the experience of symptoms and lack of validation by healthcare professionals. The women were angry due to the fact they were not taken seriously when initially seeking treatment, and they were angry at the physicians for misdiagnosing or not listening to them.

McSweeney and colleagues continue to verify how women have been and are currently treated regarding seeking treatment for cardiac symptoms and MI. Women are misdiagnosed and not taken seriously by health care providers. Women have voiced concern and are frustrated and angry regarding the medical community. We must do a better job for women.

In another report regarding the same sample of 40 women McSweeney and Coon (2004) identified inhibitors and facilitators of making behavioral changes post MI. The women were interviewed on two occasions. Inhibitors identified in the study were finances, environment, social support, physical symptoms, reduced quality of life, and poor motivation. The inhibitor labeled “finances” included having the financial resources to make behavioral changes such as buying medications and also concerns about insurance and medical bills. In addition, the women discussed the high prices of certain foods that are low fat or fat free. The inhibitor identified as “environment” focused around temperatures, for example being too hot to exercise outside or not having a safe environment outside to exercise. The women discussed problematic environmental issues such as people around them smoking and the work environment as well. The inhibitor of “physical symptoms” referred to other health conditions that impacted how they felt, such as weakness, arthritis, or poor wound healing after cardiac surgery. The inhibitor titled

“lack of social support” included the treatment by medical professionals when interacting with the women as well as family support, such as others around them smoking. The inhibitor labeled “reduced quality of life” included feelings of anger, feeling cheated by having to make behavioral changes and a sense of feeling sorry for themselves. Lack of motivation was discussed by the women as needing to make changes but reluctance to make changes.

The facilitators in the study were identified by the women as financial and social support. The women discussed the positive support received by family and friends to enhance making behavioral changes such as purchase of a treadmill. The women also discussed receiving financial assistance to help cover costs with medications and services. Positive social support was a strong facilitator and poor social support was an inhibitor for the women. Other facilitators for the women included progression of smoking cessation and walking more. McSweeney and Coon’s research revealed positive and negative issues for women during recovery from a cardiac event and discussed the need to individually focus on women for creating changes to improve health. Identifying barriers for women can allow nurses to develop individual plans to enhance making positive health changes for women.

Midlife Women

To contextualize the present study of midlife women, it is important to review developmental tasks and challenges for this age group, challenges experienced regardless of cardiac status. There are disagreements on exactly what is considered the age range of midlife (once called middle age). There are many sources in the literature and many age

ranges. Staudinger and Bluck (2001) suggest midlife is a period of life with varying boundaries and no established universal age parameters. There are authors who feel midlife is difficult to define and categorize by age (Brooks-Gunn & Kirsh, 1984; Farrell & Rosenberg, 1981). Generally, women age 40 to 60 are considered to be in the midlife phase (Glazer, Zeller, Delumba, Kalinyak, Hobfoll et al., 2002; Jung, 1954). Others have categorized midlife women as ages 40 to 65 (Borysenko, 1996; Levinson & Levinson, 1996). In a study conducted by Howell (2001) regarding women's perceptions of midlife, it was revealed that women felt midlife began at the ages of 45 or even 50. Niemela and Lento (1993) identified similar results with midlife age for women perceived as beginning at 45 to 50. Women in the midlife category are often studied in relation to menopause (Dan & Bernhard, 1989), although menopause may not be the central event in this phase of their lives. Some scholars contend that the midlife age group has been the most ignored group in research (Baruch & Brooks-Gunn, 1984), and according to some writers, additional information about the midlife group is a need (Wethington, Cooper, & Holmes, 1997)

Most authors agree that the midlife phase of life, especially for women, is an extreme time of change physically (Cooke & Green, 1981; McKinlay & McKinlay 1989). Due to the impact of so many changes occurring in the lives of midlife women, it can be a time which can negatively impact health. Children leaving home can produce the empty nest syndrome for some women, while children returning home can cause stress for others. Financial stresses may exist for single income women. Some may be facing midlife divorces resulting in increased stress. Midlife women may be caretakers of other

family members such as grown children, grandchildren, and/or elderly parents.

Relationships change during middle age as well, and may include different experiences such as dealing with the death of parents (Rossi & Rossi, 1990). Some psychological studies of midlife women have identified issues and needs such as loss. Included in the discussion of loss are circumstances such as loss of role, the empty nest syndrome, and physical losses (Lippert, 1997). Other losses for midlife women include the death of a spouse or family member.

Midlife women are often referred to as “the sandwich generation” (Zal, 1992). Raphael and Schlesinger (1993) used the term “sandwich generation” in their report about middle age women aged 45 to 65 providing care to elderly family members as well as adult children still living in the home. Riley and Bowen (2005) gave a similar definition. Himes (1994) supports the fact that over half the women who are between the ages of 45 to 59 with living parents will be expected to care for them at some point in the future. According to Shellengarar (2005) midlife women today are more likely to admit that life has become too complicated when compared to previous generations.

As is evident from the preceding literature, midlife women are adjusting to numerous roles, responsibilities, and stressors. Additionally, Halprin (1995) discussed the difficulty midlife women experience with physical changes such as the sense of loss of attractiveness. Midlife women are also undergoing physiological changes of aging such as loss of a youthful face, weight gain, and perhaps development of diseases. Some have suggested that the midlife phase for women has been defined as a time of unattractiveness, being asexual, frustrated, depressed, and afflicted with menopausal

issues (MacPherson, 1995; Markson & Taylor, 2000). Banister (1999) performed an ethnographic study of eleven midlife women ranging in age from 40 to 53. The women were asked to discuss physiological changes that were occurring in their bodies. After interviewing the women, four themes emerged including, “sensing incongruence,” “having more questions,” “sensing loss and longing,” and “caring for self.” The four themes included concern regarding their lives, loss of youthfulness, children leaving home, and uncertainty about changes occurring in the body.

Also midlife women receive mixed messages from health care and the media regarding health issues. It has been reported by Mansfield, Theisen, and Boyer (1992) that women may experience conflict regarding midlife issues due to inconsistent information. Women are told to take hormone replacement therapy and not to take hormone replacement therapy.

In 1990 a descriptive correlational study was conducted by Thomas to explore women’s health and to identify predictors of health in middle age women. The women in the study ranged in age from 35 to 55. Data for the first phase of the study were collected from two sources. One source included participants visiting the 1982 World’s Fair in Tennessee. The second source for data collection was a hospital in the east Tennessee area. Questionnaires were filled out by the participants in 1982 at these sites and mailed to the participants in later phases of the study. The women participating in phase three of the study were the focus of the 1990 report. The independent variables in the study were the “health locus of control, dispositional optimism, modes of anger expression, health habits, stress, education, employment status, income, social support, and menopausal

stage” (p. 59). The dependent variable in the study was the current health condition of the women.

Instruments used in the study included the Current Health Subscale, the Health Habits Subscale form A, which is a component of the Rand Medical History Questionnaire, and the Multidimensional Health Locus of Control Scale. The dispositional optimism of the women was measured using the Life Orientation Test. Another tool used in the study was the Framingham Anger Scales for measurement of styles of anger expression. The Norbeck’s Social Support Questionnaire was used to obtain information regarding level of support available within the women’s network of significant others. Another instrument used was the Hassles Scale to identify daily frustrations of the women. Statistical analysis included Pearson’s correlation and regression analysis. The regression analysis revealed that the strongest predictor of midlife women’s health was severity of daily hassles. The majority (66%) of the sample reported severe daily hassles, with the primary concerns being “health of a family member” and “troubling thoughts about one’s future.” Other frequently mentioned stressors were insufficient time to meet responsibilities and declining energy and physical abilities.

In a study conducted by Kenny (2000) women’s stressors were researched by age group. A sample of 299 women age 18 to 66 volunteered and filled out questionnaires. An analysis of variance was done on the variables of ethnic group, income, education, age, marital status and employment. The dependent variables used were stressors, health problems or symptoms and personality. The women were categorized into three groups

according to age. These groups were 16 to 29 as young women, 30 to 45 as middle age, and 46 to 66 as older women. In this study the findings indicated middle aged women had more stressors than younger or older women and numerous roles including family, occupation, and elder care. This study is consistent with others showing that the midlife woman has many responsibilities and roles and she is under great stress to perform at every level.

Application of Transformative Learning Theory to the MI Event

Transformative learning is a theory of adult learning that was introduced by Jack Mezirow in 1978. According to Mezirow (1998), transformative learning is a way of utilizing experiences and reflecting upon ideas and values once considered to be important for learning. Transformative learning involves critical reflection by individuals on how they view or understand their experiences or beliefs. Mezirow (1998) recognized that learning occurs by existing frames of reference, learning frames of references, then transforming points of view, thus transforming old habits. He felt critical reflection was a step utilized in all of the ways of learning. After an individual experiences an event that may create a time of confusion, then the individual will self examine. During this period of self examination the individual may experience fear, guilt, or anger (Mezirow, 2000, p. 22.). The phases or steps involved in transformative learning according to Mezirow (2000) include a disorienting dilemma, a process of self examination which includes feelings of anger, guilt, fear or shame, a critical assessment, a process of transformation, and options for new actions. Mezirow's theory may prove useful in understanding women's response to a heart attack. After experiencing a life altering event such as MI,

many feelings occur. An event such as an MI can create a disorienting dilemma for an individual. Mezirow (2003) described disorienting events as something that can be an acute internal or external personal crisis, producing emotions such as anger, stress and anxiety. It remains to be seen if transformative learning will occur

Summary

A qualitative research design using existential phenomenological method will be beneficial for gaining knowledge about midlife women returning home after an MI. There is little known about midlife women aged 45 to 65 who survive a first time myocardial infarction. After women are discharged from the hospital and return to the home environment, little is known about their experiences. There is a gap in nursing knowledge which must be addressed by learning more from them. Through the first-person accounts of the personal experiences of the women, health care professionals can obtain a better understanding of what is needed to improve their care.

CHAPTER 3

METHODOLOGY AND DESIGN

The purpose of this phenomenological study was to understand the experiences of midlife women survivors of a first time MI. Once the women are discharged from the hospital and return home, what is their experience? Although previous literature documents that a MI can be a traumatic experience for women, systematic follow-up is often lacking. After being discharged from the hospital to return to the home environment, what happens to women is not fully understood.

I have chosen a qualitative research method for the study. Existential phenomenology was chosen due to the value that can be added to nursing knowledge through detailed narration of individual experiences. The existential phenomenological method developed by Pollio, Henley, and Thompson (1997) and further modified by Thomas and Pollio (2002) was the method of phenomenology chosen for this study. In subsequent sections of this chapter, I will provide additional information about the philosophical roots of the phenomenological research method, the recruitment process of the women participants, the interview process, and how interview data was analyzed.

The History of Existential Phenomenology

According to Thomas and Pollio (2002) “existentialism is a philosophy about who we are and how we may come to live an authentic life” (p. 9). Soren Kierkegaard, a philosopher from Denmark, is credited with originating existentialism and discussing the importance of the experiences of the individual (1859/1998). Kierkegaard wanted to

understand existence. Edmund Husserl (1964/1999) a German philosopher, also sought to define existence and developed phenomenology as a method for studying essences of the human experience. Husserl was interested in the essence of consciousness and urged philosophers to return to things that happen on a day to day basis (Thomas & Pollio, 2002). Heidegger (1949), a student of Husserl, brought the philosophy of existentialism and the method of phenomenology together into a descriptive technique that has continued to evolve until the present time.

Merleau-Ponty (1945/2003) combined pieces of Husserl's ideas as well as Heidegger's as he continued to develop and describe phenomenology. His philosophy focused on perception, and according to Merleau-Ponty it is through perception that we might understand the lived experience of individuals. Merleau-Ponty (1945/1962) defines perception as "the background from which all acts stands out and is presupposed by them" (p. xi). Experience involves both the individual and the world, as perceived by the individual. According to Merleau-Ponty, "the world is what we perceive" (p. xviii). Intentionality is an awareness of an individual to specific aspects of the world (Pollio, et al., 1997) According to this philosophy body, others, time, and world are the major grounds of human existence.

Thomas and Pollio (2002) have established a phenomenological research method based on Merleau-Ponty's philosophy. The phenomenological method presented by Thomas and Pollio (2002) is useful to nursing research because it values the patient's perceptions of his/her experience. Nursing research obtained through qualitative methods has contributed a wealth of knowledge for understanding patient experiences.

Phenomenology research designs have been used by many nurse researchers including Parse, Oiler, Omery, Benner during the 1980's and Thomas, Munhall, and Porter during the 1990's (Thomas & Pollio, 2002).

In this study of women post MI, the existential phenomenology method will allow women to describe their experiences during recovery from an MI. Through individual description and reporting of their perceptions of surviving an MI, the participants can contribute to the knowledge base for nurses and other health care professionals.

Components of the Phenomenological Research Method

Part of the method of phenomenology is to set aside one's ideas or personal experiences from that of the participants. Bracketing is a process that allows the researcher to temporarily set aside any known attitudes, feelings or beliefs, although complete bracketing is not possible. Phenomenology bracketing is a process that allows an individual to identify and separate preconceived ideas or experiences so that the participant's experience can be expressed without researcher coercion or interference. The researcher did undergo a bracketing interview at the University of Tennessee conducted by a phenomenology expert prior to interviewing study participants.

Other elements of phenomenology include the one-on-one interviewing process and careful attention to the description of the participant's experiences. The method defined by Thomas & Pollio (2002) incorporates transcribing the interviews and carefully reading them for meaning. An interdisciplinary Phenomenology Research group at the University of Tennessee assists in determining themes derived from data obtained

through interviewing. Five of the transcripts from the women interviewed in this study were discussed and analyzed during meetings with the phenomenology group. Group analysis of the transcripts identified themes common to the women in the study.

Sample and Data Collection

After the study procedures were approved by the Institutional Review Board of the University of Tennessee, participants for this research project were recruited from the middle Tennessee area. IRB-approved flyers were posted in local churches, doctor's offices, and women's clubs to recruit participants. The study was explained to women considering participation. The women volunteered to participate. The researcher visited the areas and described the research study to enhance communication and assist with access to women willing to participate. Informed consent to participate was obtained from each woman prior to being interviewed. (See Appendix)

The sample for this research project consisted of eight midlife women ages 45 to 65. The women were all survivors of a first time MI. The MI event was self reported to the researcher. Excluded from the study were women who have had coronary artery bypass surgery, heart valve surgical procedures, or diagnosed congenital cardiac conditions. Women who have undergone coronary artery bypass surgery, heart valve surgery or congenital cardiac conditions were presumed to have experiences related to those surgeries or conditions, affecting how they might perceive the MI event. Women who have undergone cardiac surgery have a unique recovery as well and may encounter difficulties related to those procedures. Therefore, these women were excluded from the present study.

The study participants were interviewed by the researcher in face-to-face interviews which lasted approximately one hour. Most of the interviews took place in the homes of the women. However, some women opted to meet in designated places such as conference rooms or offices. The environments where the interviews were scheduled were quiet and comfortable to the participants. The researcher conducted all of the interviews with the women participants. The question for the participants was, "Tell me about your experience after having a heart attack and returning home. What was it like for you?" All of the interviews were audio taped using a Sony digital recorder. The content was transcribed by the researcher and a transcriptionist. The transcriptionist signed a confidentiality agreement form and removed all names of participants, health care providers, and institutions (See Appendix). Field notes were recorded by the researcher after interviewing the women. Other information about the women was obtained using a demographic sheet (See Appendix). According to Guest, Bunce, & Johnson, (2006) saturation of data usually occurs within twelve interviews. In this study, saturation began occurring after interviewing the first five women. The women shared common feelings of fear and lack of knowledge concerning the symptoms of MI as well as how they felt during recovery.

Transcripts of the interviews were read and reviewed by the researcher, and a subsample of transcripts was taken to the University of Tennessee Phenomenology Research group, as mentioned previously. Members of the University of Tennessee Phenomenology Research group signed confidentiality forms prior to reading and discussing the transcripts (See Appendix). During the research groups and reading of the

transcripts meaning units were identified and themes were proposed. The researcher attended an additional group meeting to present the final thematic structure. The themes obtained from the data analysis were validated with some of the participants to be sure that the analysis correctly represented their perceptions of their recovery experience. All information has been stored in confidential locked files.

Pilot Interview

A pilot interview was performed in March 2006. A 45 year old woman six months post MI was willing to participate and was interviewed by the researcher. The researcher met the participant in her home. The woman signed a consent form and I explained to her that this would be a pilot interview. The question asked in the pilot study was, “What was it like when you returned home after having your heart attack?” The woman first wanted to discuss the MI, how it happened, when it happened, how she felt and what happened in the hospital before sharing what happened when she returned home. Some issues that surfaced from the interview were feeling anxious and fear of dying after returning home. She experienced fear of going to sleep at night. She told how she would sleep in the recliner with the lights on because she was afraid of dying in the night. She discussed feeling angry and not understanding how she could have a heart attack at 45 years of age. Some of the themes she discussed were fear, anxiety and anger. She has since been readmitted to the hospital with chest pain and had an additional stent placed.

The researcher focused on the participant and her personal experience. She described her chest pain as feeling worse than having a baby. Her husband drove her to two emergency departments while they were trying to make a decision. Initially, the

participant's husband drove her to the community hospital emergency room rather than calling 911. Once they arrived, she began to feel better and doubted a need to go into the hospital. After leaving the first hospital the participant suddenly developed significant shortness of breath and heaviness in the chest. At that point it was decided that the husband would drive her to a major heart hospital some 30 minutes away. After arriving at the emergency department, she described the feeling of almost passing out when walking into the hospital. The researcher did wonder why the husband, being a registered nurse, did not call 911. This pilot interview indicates the need to educate the public regarding women and heart disease, especially MIs. The pilot interview allowed me to test the question and eventually modify it somewhat. The pilot interview also opened a new door for me as a nurse. First, I had to learn to interview. What I discovered most during the pilot interview was the impact of the story told by the participant. After working for years as an emergency department nurse, I had never realized how women felt upon returning home. Success, for me, had always been following the chest pain protocol and transferring them to the appropriate unit, alive; this was a victory. Now, I can see that success may not be so easy.

Rigor and Validity

Rigor was established by adhering to the phenomenology method and following examples that were developed by others (Munhall, 1994; Thomas & Pollio, 2002). Components to assure rigor to the study included participation in a bracketing interview, audiotaping the interviews to capture exact words of participants, and then listening to the

tapes to make corrections. Careful listening to the taped interviews and subsequent thematizing of the transcripts were performed by the researcher. Some of the transcripts were read aloud during the Phenomenology Research group at the University of Tennessee in Knoxville. Through group readings and analysis, themes and a thematic structure were developed.

According to Creswell (2003), a method of establishing validity in a qualitative research design can be achieved by sharing the results with the participants. The participants can then validate the information by agreeing with the results and providing the researcher with verbal agreement of the meanings obtained. This ensures that the researcher understood correctly what the participants described. The themes obtained from the study were shared with some of the women. The women were in agreement with the selected themes, although one woman said she would not have thought of it the way we did. After sharing the themes with some of the women, the researcher felt another component to support rigor to the study had been performed.

Summary

This chapter has discussed the existential phenomenology research method used for this study. The research method of existential phenomenology was chosen due to the rich data that can only be obtained from dialogue about lived experience. Women who experienced an MI described their personal experience of survival and recovery in their own words. Through the method of phenomenology the ability to obtain meaning from the experience of the participants can be shared with others.

CHAPTER 4

FINDINGS

An existential phenomenological method was used to understand the lived experience of eight midlife women MI survivors. Face-to-face interviews were conducted with the participants to explore personal descriptions of their experience. When the women were asked to describe what it was like to go home after having a heart attack, most of them first discussed in detail the traumatic MI event. They described what they were doing when it happened, the symptoms, what they felt like, and others who were present or brought into focus during the MI event. The women described what stood out for them during their experience of being in the world in a strange new way. They also talked about the event as if it happened only yesterday and easily recalled various details of their experience. This chapter highlights the results of the thematic structural analysis obtained from the interviews of the eight participants in the study. The results of the themes will be illustrated with quotes from the transcripts of the participants. First, each participant will be introduced, with contextual information about her world.

Participant Vignettes

Grace: This participant lives in rural middle Tennessee. She experienced her MI eight years ago at age 53. She is a cafeteria worker for a local school, and the researcher interviewed her in the school cafeteria after all of the children were gone for the day. The cafeteria was bright and white with colorful paintings of children on the walls. Off in the distance, one could hear the laughter of children. Grace enjoys her job cooking and

serving lunches for children at the school. Grace is a widow and lives alone. She has one daughter and one grandchild. She is fearful of having another heart attack. She says she thinks about the MI at some point during every day: “And there’s always that fear of it happening again.” After the MI she experienced fear and depression during recovery and continues to have these feelings today.

Karen: This participant is an emergency room nurse. She was interviewed in a conference room of the hospital in which she works. She experienced her MI six years ago when she was 56. She feels safe being at work around other health care professionals. The physicians and nurses take care of her and often question her regarding her health. This offers a sense of security to her. She is a divorced woman and lives alone. She has two grown children and some grandchildren. She is very close to her family and spends most of her free time with them. She feels thankful to be alive and to be able to continue to work. Her work and friends are very important to her. Expressing gratitude for survival, she said: “It’s not all the time, but there are times that I reflect back on it and again I’m thankful. And I always say ‘thank you God,’ because I know I’m on borrowed time now and I appreciate every day he gives me with my babies.”

June: She experienced her MI one year ago at age 45. She lives in a very rural area of middle Tennessee. She is a tall, slender woman who looks much younger than her age. She was a nursing student and also worked in a local health care facility as a nursing assistant prior to her MI. The researcher interviewed the participant in a quiet conference room located in an office building. She is in a second marriage to a man with three children and she has one teenage daughter from her first marriage. June was enrolled in

nursing school when she experienced her MI but had to withdraw due to inability to tolerate physical exertion after the MI. June has given up her dream of becoming a nurse and has returned to a factory job in which she rotates shifts every three weeks. She works day shift for one week, evening shift for week, and night shift for a week. June admits she does not like the schedule and that it is very difficult for her, but she needs the insurance. She says she continues to think about the heart attack every day. She also continues to have chest pains. June is anxious about her future. "I feel like something is tarnished now."

Carol. The researcher interviewed this participant in her home. She lives in a metropolitan area of middle Tennessee and experienced her MI six years ago at age 51. She has a history of having a liver transplant, which she describes as a "piece of cake" compared to the heart attack. Her MI occurred on a Sunday morning while attending church services. She says the MI left her feeling exhausted for months. She spoke of a long recovery and how tired she felt. Carol eventually resigned from her long standing retail job so she would feel better physically. "I just felt weak and tired. I didn't feel like doing much. It really knocked me back. My liver transplant was a piece of cake."

Sally. As I arrived at the home of Sally, a traditional Southern woman full of hospitality and grace, she welcomed me into her home and offered coffee and cookies. She experienced her MI six months ago at the age of 60. During the interview she was well dressed with perfect hair and makeup. She complained of feeling tired and told of how much the MI has interfered with her life. She claims to be a caretaker of others with a very busy lifestyle. She is a wife, mom, grandmother, choir singer at the church and has

many friends. She is determined to gain control of her life and to do the things she wants to do. “A little bit of depression and anger. That’s mainly the emotions that I felt. I think when I came to terms with the fact that I’m not Super Mom and I’m not Super Grandmom, I was a little bit depressed about that.” She is currently enrolled in a cardiac rehabilitation program. Sally admits she is the youngest one in the cardiac rehabilitation program and the others refer to her as the baby. She complains of feeling tired and having to take frequent breaks during the day to rest. Sally says she has reorganized how she cleans the house because she is too tired to clean the entire house in one day like she used to do.

Lucy: Lucy experienced her MI five years ago at age 51. She was working in a bank as a teller. One morning while dressing for work she began to feel sick. She vividly remembers looking at the clock after arriving to work and sitting at her desk; it was 8:00 A.M. She rationalized that her symptoms were not related to her heart, but at the end of the day she decided to go to the physician’s office for help. She was seen by a health care provider who she says never touched her. She was given a steroid injection for bronchitis and sent home with a prescription for pain medicine. She drove herself home and described feeling totally exhausted. The following day Lucy was feeling so bad that she finally sought help in a local emergency department, where she was diagnosed with having had an MI. She says was “shocked” over the diagnosis. Lucy continues to be angry regarding the initial misdiagnosis. Lucy described herself as an independent woman, working and taking care of her family. She resigned from the bank job and now is the caretaker of three grandchildren. She feels that men are taken more seriously and

treated better by health care professionals. “I felt angry that people didn’t believe me that I was sick. I said something is wrong.”

Linda: This woman experienced her MI nine years ago at age 53. I interviewed her in her home, which was very dark and cold. She said her thermostat was set at 68 degrees to maintain her breathing and comfort. She was wearing big dark sunglasses that covered most of face. She lives alone and is unable to work. She says she has few friends and is afraid to go places. She has two grown sons. One son lives close by and the other lives in a different state. She is chronically sick and has other medical conditions such as diabetes mellitus and congestive heart failure. She thinks about death often. She is depressed about her physical condition and says she is always weak and tired. She feels that the physicians have not taken her seriously through the years. “I think about it every day. Sometimes I get angry about it, thinking that if they had of caught something, or if they had listened to me, you know, something could have been done then if they’d been more concerned and listened to me that women did have heart conditions.”

Molly. This participant is a very busy woman. She has a demanding job and takes her work very seriously. She experienced her MI two years ago at age 58. She requested to be interviewed in her office, late one afternoon. There were stacks of folders and papers all over her desk. Her name and title were displayed on a bronze emblem situated in the middle of the desk. She feels that having an MI has been an emotional roller coaster for her. She is unsure of her health and feels she will not be able to tell if she is having another MI. Molly lives alone and prefers to be alone. She feels she was not given adequate information regarding heart attacks. She claims she is stressed and emotional

often. “I mean, I had a heart attack and that was it, end of discussion. If I have another heart attack I’ll be in the dark again.”

The Contextual Ground

According to Pollio, (1982) the figure/ground concept applies to our being in the world. Perception of what is figural (predominant) to an individual occurs in the environment; all being is being-in-the-world (Pollio, Henley, & Thompson, 1997). Therefore, the phenomenologist seeks to discover both what stands out in conscious awareness and what constitutes the contextual ground of an individual’s experience. The phenomenon of the MI stands out for the women against the existential grounds of Body and Others. The traumatic life experience of the MI is figural in this analysis, because the Body is forever altered, described as “broke down” or “tarnished.” But the impact of the MI is also perceived against the ground of Others in the lives of the women. All of the women told their stories in relation to their families. They wanted to return to the life they once lived prior to the MI, especially their role of caretaking for Others. One woman discussed keeping a smile on her face for everyone else so they would not know her internal fears and worries regarding the MI. Prior to the MI each woman shared a life with others and maintained traditional roles such as mother, grandmother and caretaker. The MI disrupted their roles. Further discussion of the contextual grounds of Body and Others follows, and the themes are introduced.

Body: "My Body felt broke down and tired"

The women discussed the fact that their bodies were not the same after the MI. As one woman said, "I don't know my body anymore." All of the women discussed the physical symptoms of feeling tired and exhausted after the MI. The women discussed feeling drained and weak for weeks and months. They described life after returning home from the hospital in terms of the difficulty they experienced performing simple tasks such as getting dressed and walking around in the house. The women wondered if they would ever return to normal and be able to do things. One woman remembers, "When I got home I actually could not walk down the hallway. I was that weak." Every woman worried about returning to normal and how long it would take to regain energy. "I couldn't get my energy back. I felt very fatigued." The lack of energy and the long recovery period after the MI has changed their customary perception of their bodies. Symptoms such as generalized body pain created alarm, anxiety, and uncertainty, causing the women to wonder if it could be the heart. Many of the women expressed feelings of uncertainty about activity, such as not "overdoing" since the heart attack. They had been told to make lifestyle changes such as exercise, but they were not sure how to begin, as well as, how much was too much.

Others: "I would go through periods of always trying to be happy around my children so that they wouldn't be upset"

The women lived their lives in connectedness with others, especially family members. The women were with others during the MI event as well as during recovery at home. After experiencing the MI, the roles of the women in relation to others were

extremely disrupted. The women discussed how they did not want to upset others in the family. They did not want family members to know how afraid they were. They did not want the family to worry about them. All of the women shared feelings of concern for family members, especially their children. Each of the women stated they had always been independent and strong. They have been the independent caretakers and wanted to continue to maintain this role. During the interview with Sally she referred to returning to the caretaker role: “My concern, again, was am I going to be able to take care of the family, and I’m really glad that I am back up to where I can do almost everything that I did before.”

The following excerpt from the data elaborates on the importance of others, and the influence of what other people said to the woman, after the MI:

I would go through periods of always trying to be happy around my children so that they wouldn't be upset or think that it was a big issue. I didn't really myself think of it as a big issue because I've always been a pretty strong person until a lot of people said, 'You know, you almost died, we almost lost you, your heart attack was significant.' And after that it just kind of hit me as, you know, a pretty big event obviously. So after a lot of people started saying that to me it started making me think about things a lot harder than I had prior to that. And I started trying to slow down, which is just not possible when you're going to school and you're working and you have children and a family and everything. It's just not possible. So I basically just jumped right back into the

same routine and I was just, I was not happy around anyone unless I had to be, unless I was put in a position where I had to be, and at that point I made myself. (June)

The women in the study felt a need to continue to demonstrate the role of being a strong caretaker for the family, as shown in the next exemplar from the data:

And then my main concern was what if something happens to me and I can't take care of... I can't be there for the other people I want to be there for. That's probably what scared me the most. It's not... I wasn't scared of dying or anything. I was just scared of not being there for my daughter and my grandson and my family. (Grace)

Thematic Structure

Narratives of the aftermath of an MI included four major themes. The themes are (1) Interference, (2) Freedom/Unfreedom, (3) Knowing/Not knowing, and (4) Living in Fear. The themes represented the experiences of all of the women in the study. Verbatim quotations from the narratives of the women participants will illustrate each theme.

Theme One: Interference

The theme of Interference refers to participants' perceptions of how the heart attack radically interfered with their life course and lifestyle. The MI had interrupted both the career status and routine domestic life of the women. Some of the women no longer work or have decreased their work hours. The sudden disruption forced many changes for

them. One woman said, “*There were so many things rushing through my head and I was thinking how could a woman 45 years old have a heart attack?*” (June)

After her MI, June felt she no longer had the energy to maintain the additional role of being a student, along with being a mother, a worker and caretaker for her family. She surrendered her life dream of becoming a nurse:

I just felt completely overwhelmed with everything. I had it in my heart that I didn't want to give up on school and everything because I'd worked so many years and so hard to get there. But I knew inevitably what was going to happen. So that's where a lot of the depression came in there was because you are having to give up a lot of things that you'd always done before and you'd worked so hard for. (June)

The women described how the MI had interfered with their daily life inside and outside the home. The MI event had interfered with their families, their daily routines, and their lives in general. The MI had interfered with role responsibilities across the spectrum for most of the women. Experiencing and surviving the MI interrupted the physical and emotional well being of the participants as well. All of the women faced loss of physical energy and feelings of anxiety and fear. The women had survived but the impact of the MI had interrupted or caused a drastic change in their lives. The MI had forced the women to view life differently.

All of the women in the study discussed feeling different since the MI. They feel they will never be the same because they have to worry and be cautious about their life. A sub theme that was identified in the study was, “*It just took something out of me*

that I probably never really have gotten back.” The women discussed feelings of their bodies no longer being the same. Nine years post-MI, Linda described her legs as “weights” and her life “revolving around pills.”

Returning home after a heart attack created many new concerns for the women. Suddenly they were faced with living beyond the hospital and living with a recovering heart. Participants in this study felt that having an MI had interfered with their bodies and their lives. The women felt they were unable to do the things they did prior to having the MI. The MI event also caused an interference with identity and existential questioning, “Why me?”

“Why Me?”

The inability to understand how this could happen to them (the feeling of “why me?”) was apparent in the stories of all of the women. The inability to understand how and why this had happened caused the women to feel sad, depressed, and even angry. Trying to rationalize why was common among the women. *“Just the fact that it had happened to me and I was, you know, I was alone without my husband and I would get angry sometimes thinking why did this happen to me, you know, why did it happen to me. I don’t know if I was angry at God, but I would question it a lot.” (Grace)*

To summarize the theme of “Interference,” the physical feelings experienced after the MI left the women feeling different. An interference in the life course had occurred, leaving them to face new challenges. All of the women voiced concern about not being able to do the things they once did. The women described living an altered lifestyle now, and anticipated that things would never be the same. One woman felt life as she once

knew it is over. The feelings of exhaustion and tiredness were constant; all of the women discussed feeling fatigued and exhausted during recovery. The women described weeks and months of recovery. Clearly, the women are not living as they once did.

Theme Two: Freedom/Unfreedom

The theme identified as freedom/unfreedom results from the women's constant struggle with the new health issues. They feel they are not free to go out into the world and do the things they did prior to having the MI. The participants described the heart attack as "hitting them" and "knocking them for a loop" and "it knocked me hard" when reflecting back on the experience of the MI. Due to the traumatic impact of the MI the women felt that life had changed. The invasion of the heart attack has left them uncertain and anxious, and their constant worry would not go away. The women felt they were no longer safe, as expressed by Linda: "Well, insecure because of what my heart's done to my brain, my way of thinking, and so forth." June described feeling stopped, withdrawn, and older:

"I feel older than my years. It made me age. Really it did, because beforehand I thought there was nothing that could stop me—and now I know there is. I mean I feel withdrawn from a lot of things still." (June)

The women cannot rid themselves of the MI. They try to push the MI out of their mind, but it will not go away. The freedom of a carefree life is gone, as expressed by the participant who said, "I feel tarnished now." During recovery, and after, the women talked about learning to try to pace themselves. They also discussed the need to have to depend on others, which they were not accustomed to doing:

It just made me think well DAMN, you know. And it took me a little while to learn to pace myself and gear down from doing a lot of things I did. I found like a lot of things that I was doing on my own, I took for granted, you know like climbing the ladder and cutting tree limbs through my yard. Now I don't do that. It's not that I don't feel okay up there, but I'm afraid I might get dizzy or something. Now if I do anything like that I make sure somebody is around the house with me. Things that I just never thought about before running out and doing. Now I like to just sort of have somebody with me. (Karen)

Returning to their various roles was difficult for the participants during recovery. All of the women were mothers and/or grandmothers, workers, and caretakers. Many of the women were forced to decrease their work hours or even quit working outside the home:

And I felt guilty because I took off a week and a half. I really did. I'm saying it was hard to go back to work. I would work half days. By the time I worked half a day and got back home I could barely get up the steps. I mean I would barely make it, then I would sleep 'cause I was so tired. I would just sleep. (Lucy)

In contrast to being independent and doing for others, life after the MI was described as a prison. Life before the MI consisted of the freedom to go and do without thinking of health. Now there was unfreedom, and constant thoughts of feeling tired and different. The women have been robbed of feeling good and carefree.

And I think I went through a little bit of depression. You know, not being able to —because I'm real active—not being able to get out and do what I wanted to do when I got ready to do and everything. And I didn't have enough strength and enough breath to go out and do what I wanted to do. My body just felt like it was broke down and tired.

(Grace)

In summary, participants decried their loss of freedom. Since the MI, the women are not as confident in themselves as they were prior to the MI. Life before the MI was full of confidence, but now the confidence level has changed, resulting in depression, sadness and sometimes anger due to the enormity of experiencing an MI. The feelings and thoughts post-MI left the women feeling as they had been invaded. The symptoms won't go away, contributing to the feeling of unfreedom.

Theme Three: Knowing/not knowing

“I never dreamed in a million years I was having a heart attack.”

All of the women in the study stated they did not know they were experiencing a heart attack when it was happening. Others around them such as family members, friends and in some cases health care professionals did not know either. The women described the MI event in terms of not knowing what was happening to them. The women in this study did not experience the classic symptom of sudden heavy chest pain that is so often dramatized on television and in magazines. Thus, when the vague symptoms of arm pain and exhaustion were occurring the women were not sure what was happening, but they knew something was wrong with their bodies. Many of participants discussed the fact

that they were not taken seriously by health care providers upon initial contact with them. One woman was questioned repeatedly by the emergency medical services regarding her symptoms and was told she sounded too young to be having a heart attack:

So I grabbed the phone and I called 911 and the lady came on the line and she said, "What's your emergency?" and I said, "I think I'm having a heart attack." And she said, "Ma'am, how old are you?" and I said, "I'm 45." She said, "Well, you sounded like a child." I said, "I know I have a strange voice." I said, "Ma'am, I'm very sick. Something is wrong." And she said, "You're 45 and you think you're having a heart attack," almost like she didn't believe me, and I said "Something is wrong." (June)

June was taken to a rural health care facility and was initially diagnosed and treated for abdominal and gastrointestinal symptoms. She did not know what she was experiencing nor did the health care professionals. She was instructed to drink contrast solution for a gastric series. She was handed the containers of solution with a straw and left alone in the room.

Rita was misdiagnosed and treated for bronchitis by health care providers in a physician's office. Almost twenty four hours later, Rita sought emergency care at a hospital emergency department and was diagnosed as having suffered an MI. She did not know what was going on physically, but she knew she was sick and described how sick she was to her family, yet the health care providers in the physician's office did not know.

June described health providers repeatedly dismissing her complaints as “anxiety:”

For two years they've told me that the reason I was hurting in my chest and having blackouts, you know, blacking out or being out of my sorts, they told me it's because of anxiety. So at this point, you know, I know that they were wrong... You know something has to be wrong when you're body is telling you it's wrong. Pay attention to the symptoms. And if you don't get the answer that you're looking for at a doctor's office you go on to another one and another one. Don't just stay at one doctor's office because this same physician told me on three different occasions it's anxiety and never checked me for any kind of a heart condition. The night that I had the heart attack he came into my room up here at the hospital and he said, 'I apologize to you... I was wrong, I should have checked you for that. But you didn't have any kind...there's no history for you to be having a heart attack, you know.' And also the symptoms, you kind of try to ignore the symptoms. (June)

After being diagnosed with the MI, the women were often prepared for diagnostic procedures and stent placements, still not knowing what it all meant. The sub-theme “*They never told me anything*” was a common thread among the discussions of the women regarding adequate health care information while in the hospital and after returning home. Molly stayed in the emergency room for what seemed like hours. She described the situation as:

Oh, some hours later they told me I had a heart attack. I don't remember how many hours later, but they were not telling me, they kept giving me aspirin and NTG but they weren't telling me what they were giving me and why. This is a big hospital. And they were not telling me they just kept doing things and kept taking my blood pressure and they would note it was coming down. The blood pressure was coming down and that's all they would say to me and it wasn't until several hours later and I don't remember the doctor, the emergency room doctor came in. I said I am ready to go home and he said 'no, you're going to be admitted, you had a heart attack' and that's what I was told. (Molly)

Molly wanted to know why she had a heart attack and what caused it. She repeatedly asked the health care professionals how it could have happened.

The fact that, you know, my heart attack was stress related. They did not tell me that. They did not tell me what caused the heart attack. They just told me that I had one. Well what brought it on? They didn't have any clear definitive answer for me. So I just more or less concluded on my own that it was stress related, going back to what I had experienced, which I had told the doctors at that time what I had just gone through. And I said to them, I said I think a lot of it is stress and emotional, the ups and downs are what led to it and they kind of shook their head in agreement, but nothing was verbally said to me or

nothing was ever given to me stating that your heart attack was caused by stress. (Molly)

All of the participants said they were given general discharge instructions prior to leaving the hospital. However, once the women returned home they realized that they had not been given adequate instructions. After returning home the women realized they did not know what to expect. The women did not know how they should feel, which caused feelings of anxiety and uncertainty. The women all felt they were not informed about potential emotions they could experience. All of the women in the study felt health care providers should do a better job explaining to women what to expect upon returning home after an MI. Not knowing what to expect was emphasized by Grace:

I was scared and I didn't know what all to expect. You know I didn't know if this could happen again. I was scared because I was by myself. My husband, you know, he was dead and I didn't want to alarm my family that I was that scared. But I stayed by myself and just tried to be strong with it. But I was scared because I didn't know, I didn't know what to expect. (Grace)

The standardized discharge instructions addressed diet modification, decrease sodium intake, and aspects of physical activity. These are important topics to address for cardiac patients, but there are other needs, especially for women, that must be addressed.

I think, yeah I think you could definitely do better preparing people because nothing on that sheet was there for what to expect from your feelings, for example. There was nothing on there saying, you know,

prepare yourself for these type feelings, but it is natural... I was scared. I mean my God, I was just scared. I don't know if I'm going to have another one today or not. But there should be some kind of class, some kind of, I mean if I could have went to a class where someone talked to me about a heart attack and let me ask questions right then while it was fresh on my mind that would have been a lot better, a lot more reassuring. They should do that. (Grace)

The participants felt they did not know what to do once they returned home. All of the women described feelings of being completely exhausted but were not told to expect this, nor were they told how long it may take to regain their energy. They felt alone, and the unanswered questions contributed to stress and anxiety during recovery.

I felt like I was about to have another heart attack. I felt nauseated a lot. I felt dizzy a lot of times. I felt very unhealthy I guess you'd say. I didn't feel like I had any energy at all. They told me not to—we have 16 stairs at home, very steep stairs—and they told me 'Don't be going up the stairs,' you know. I felt very useless basically. I tried to do all the work that I had normally done at work because I didn't want anybody to think well she's not capable of doing this and maybe replacing me or anything. I had a lot of doubts about myself. (Lucy)

In summary, lack of knowledge contributed to fear and worry for the women. The women worried every day. In some cases, even years after the MI, the women do not know if they may suffer from another attack. Initially, when the women had the MI, often

the symptoms were vague. Thus, they feel if it happens again, they will not know, and they cannot trust health care providers to know either. Even years after having survived an MI, the feeling of not knowing or when it will happen again is a daily thought. We turn now to Theme Four, which pertains to the fear of recurrence.

Theme Four: Living in Fear

The theme of living in fear included both the immediate post-MI period and continuing fear. Karen describes the initial period:

The first day home I was very tired and I was very... I think my first day home I didn't want my family to know but I was very scared. Every little twinge I would think, "Okay, go to your room and sit down a minute, don't scare them." Which I knew it was, and I thought don't rationalize and I was thinking about and I thought, "No, I'm conjuring up things now" because my first... probably the first couple of days home, I was very scared, and my daughter would not leave and I was grateful because it was something about the night that I was afraid to be home by myself at night that first week home. And then I just got back into it. I don't know. I just felt as it got darker I didn't want to be there by myself to go to sleep by myself so my daughter stayed with me. And I don't know how to explain it. I just had this I don't want to be alone in the dark. I just didn't want to be alone at night. During the day I was fine. It was just something about the night and I think it's because I lived alone and I was afraid if I went to sleep... I just wanted

someone to sort of check in on me about every couple of hours, three hours, to make sure my chest was rising and falling. (Karen)

Fear constrained women's participation in family activities, as shown in the following exemplar:

Since the MI I've had bouts of depression and anxiety and my confidence level has gone from around an eight out of ten down to about a five. I'm not very confident in myself anymore. I have days when I'm just not real sure, you know, if I'm okay. I'm scared to do things that I used to do. This past week like we went on vacation, a lot of family they went parasailing, they went on amusement rides, different things, and I was scared to go because of my heart condition, afraid that I would have a heart attack the whole time, or something would happen. (June)

All of the women discussed the worry and fear of having another heart attack. "And there's always that fear of it happening again." Many of the women say they think about their heart at some point every day. "You're always fearful that you're going to have another one, another big heart attack." Some of the women discussed being afraid of the MI occurring during the night. The women who lived alone were especially fearful of having another heart attack during the night, even dying and not being found for days.

One participant spoke of the effort to “push” fear out of her mind: *“But you’ve always got in the back of your mind you’re going to have another one, you’re going to have another heart attack. I’ve still got it in my mind now, but I try to push it out.”*

Another woman discussed the fear of having another MI and facing open heart surgery.

I thought about every time you have a pain now, every time I have a pain in my chest or something I get scared and I think it’s going to happen again, this is the day. You know, am I going to have to have coronary bypass surgery, is that the next thing? Right now that’s the fear I’m holding on to because I know that that’s next and I don’t, even though I take my medicines as prescribed and everything, I feel like that’s inevitable just as age marches on. I’m wondering when that’s going to happen and when they’re going to split me from neck to thigh. I mean that’s a scary thing for me right there. And I guess body image. I feel old now. I don’t feel young anymore. I feel like something is tarnished now, do you know what I mean?

Others expressed fear of not knowing what another MI would feel like, what their bodies would experience. Some of the women feel another MI may cause death and they were afraid of dying, especially dying alone. Issues of mortality permeated during the interviews: *“How short life is... You can feel like you’re indispensable one day, and the next day you can be looking at a ceiling somewhere feeling hopeless and helpless.”*

The next exemplar is illustrative:

It's a horrible feeling because like I said you're so scared that something is going to happen to you and you automatically; the second day I was at home I was calling trying to find additional life insurance. I wanted more life insurance because I thought well now there's a chance that I could die." (June)

Summary

In this chapter the themes depicted how the women felt when they returned home post MI. The women shared very similar feelings and concerns when they returned home. All of the women emphasized a disruption or interference in their lives after the MI. Normal activities such as everyday routines, work, and family had been irrevocably altered. The experience of the MI had interfered with life as it once had been. Plans changed, work changed, and daily life had suddenly been interfered with due to the MI. Some of the women felt they were too young to have a heart attack and did not understand why it happened to them. Due to the impact the MI has had on their lives, many of the women expressed anger. Some were angry because they did not know what was happening and why, others were angry because they must live differently now. Each woman discussed aspects of the theme freedom/unfreedom when they shared the differences in their everyday world. The women once had freedom prior to the MI. Since the MI they experience unfreedom, due to constant reminders of their physical status.

All of the women struggled with knowing what to do and what not to do after returning home. Thus, the theme knowing/not knowing was identified. The women felt they had been given generic discharge instructions that were not helpful during their

recovery at home. They felt that health care professionals, including emergency medical services, nurses, and physicians, did not know the severity of their condition. The final theme in the study, living in fear, captures the present feelings of all of the women. They were all concerned with the fact that another heart attack could occur. Each woman voiced the constant fear of when it may happen again. Some women who lived alone had feelings of fear and dying alone. It was important for women to have others around or be able to contact family if needed. Sometimes the presence of others provided support.

CHAPTER 5

DISCUSSION

The purpose of the study was to understand what it is like for women survivors of an MI once they return home to recover. Eight midlife women who had experienced an MI were interviewed for the study. The women are now living a new life after the MI. They have undergone a certain transformation as they continue on and live with their disease process. The women state they are constantly aware of their cardiac event and worry about the future. The findings in this study indicate that women want to talk to someone about their heart attack. They are searching for support groups in their communities and there are none. All of the women in this study pleaded for health care providers to establish and offer support groups or services to women. The researcher actively utilized resources to find support groups for women who have had an MI, and to my surprise, there were none available. There are support groups for almost every medical condition, but none designed to meet the needs of women who have experienced an MI. This chapter discusses findings of the study as they relate to transformative learning theory, compares the present findings to previous studies, and proposes implications of the findings.

Comparison of Findings to Previous Studies

In this study feelings of anxiety, fear, and frequent thoughts of death were very commonly reported by the women. These feelings identified by the women have also been reported in other studies (Grace, Abbey, Irvine, Shnek, Stewart, 2004; Kubzansky,

Kawachi, 2000; Martens, Smith, & Denollet, 2007; Strik, Denollet, Lousberg, Honig, 2003). Many researchers have reported anxiety as a negative and harmful emotion that can impact cardiac health, especially in individuals who have a known cardiac history. Many of the women in this study continue to feel anxious even though years have passed since the MI.

The findings of the current study are very similar to a study conducted in Sweden by Johansson, Dahlberg and Ekebergh (2003). In their phenomenological study eight women ages 55 to 80 were interviewed to explore living experiences following an MI. The themes identified in the study were “*my heart my life*,” “*living with an unreliable body*,” “*when life fails, feeling vulnerable and lacking participation*,” and “*trying to achieve reconciliation*.” The first theme, “*my heart my life*,” discussed how life and death are thought of daily. The women discussed the uncertainty about the future, the fear of death. The next theme, “*living with an unreliable body*,” detailed the women discussing the fact that their bodies are different than they used to be. They no longer trusted their bodies and felt insecure. The theme, “*when life fails*,” focused on feelings of fatigue, missing the power of their bodies, losing strength and vitality. The theme, “*feeling vulnerable and lacking participation*,” revealed the feelings of not knowing what is too difficult for activity or what is helpful. The women were given standardized information from the health care facility which focused on making lifestyle changes. The women were uncertain about strenuous activity and what they were allowed to do, causing confusion with making active lifestyle changes. Finally, the theme, “*trying to achieve reconciliation*,” involved the women discussing how to carry on and somehow return to

normal. The women in the Swedish study reported a need for support after going home from the hospital. The women reported anxiety, fear and a loss of freedom. These findings are similar to the findings obtained by interviewing American women in the current study. Both Swedish and American study participants reported confusion and lack of instruction during the recovery phase. The study performed in Sweden and the current study differ mainly in the ages of the study participants. The women in the current study are midlife, therefore younger than the Swedish women.

Findings can also be compared to a new study of women with heart failure by nurse researcher Sandra Plach (2008). The study was conducted to examine psychological well being in women with heart failure and to identify if social roles made a difference in well being. In her study 169 midlife, older, and late-life women completed questionnaires to measure social role quality, psychological well being and physical health. Regarding the social roles of women, MANCOVA analysis revealed that midlife women had significantly lower role balance and higher self discrepancy scores than the other age categories of women. The role balance scale included the roles of Homemaker, Wife, Worker, Friend, Mother, Relative, Grandmother, and Volunteer. In the Plach study the roles with the lowest balance of rewards over concerns were identified as homemaker and wife, whereas the roles with the highest balance of rewards over concerns were identified as Grandmother and Volunteer. Pertinent to the present study, midlife women reported more anxiety and depression and lower role balance than older and late life women. Other findings revealed lower levels of social role quality were associated with poorer physical health and younger age. Women who reported high role quality had

decreased anxiety and depression. Thus, social roles of the women were key to psychological well being as well as psychological distress for women who are recovering and living with heart failure. It is important to note that the midlife women in the study reported poorer physical health, less role quality, less psychological well being and more distress than the other groups of women. These findings suggest that midlife women with congestive heart failure have a difficult time with recovery and balancing their multiple roles. The midlife women in my study also had difficulty during recovery and with returning to multiple roles, expressing great concern about returning to the role of caretaker for family members and working.

Implications for Nursing Practice

Throughout the study many implications for nursing practice have emerged. The standard education provided to women while in the hospital and prior to discharge has not been designed specifically for women, but has been designed to be used for women and men. Most educational discharge summary sheets can be printed from the computer prior to discharge and provided to all MI patients. The main focus for most discharge instructions includes the importance of stopping smoking, making dietary alterations such as decreasing fat and sodium content, and exercising at least three times a week. After returning to the home, most of the women felt they were not adequately informed of what to expect. Issues including emotions and physiological changes such as weakness, tiredness, and exhaustion were not addressed by health care providers. The women went home to recover and cope and were overwhelmed. Depression and worry surfaced in

many women. There is a need for nurses to get more involved and connected with the women while they are in the hospital.

In a recent study by Decker, Garavalia, Chen, Buchanan, Nugent, Shipman and Spertus (2007) MI patients were interviewed to determine information needs during the course of treatment and during recovery. In the study 19 participants, consisting of 15 men and 4 women, ages 38 to 70, participated in focus groups. All of the participants had experienced an MI; some of them were post coronary artery bypass surgery. The results of the focus groups included some findings that were similar to the current study regarding patient information needs. In their study the participants indicated that post discharge and during recovery more individualized information was needed. Also identified was the need for information to be presented in ways that enhanced patient understanding. Limitations to the study include the small sample size of women and the fact that some of the participants had coronary artery bypass surgery. However, many patients are in need of more specific instructions.

The results of the current study indicated that health care providers need to be aware that patients are not receiving instructions that are specific and helpful for them once they return home to recover. Nurses have the opportunity to become proactive and assist women by preparing them for recovery. There is a need to change nursing practice by restructuring the delivery method of hospital education for women who have suffered an MI. An individual assessment of the woman's life and roles must be obtained and discussed. Hospitals should consider utilizing the role of the nurse as an MI educator. Hospitals could incorporate the Clinical Nurse Specialist as an active one-on-one

educator for MI patients. There is a need to have a nurse available for women so that they can receive individual attention. This person could also provide follow up calls to the women once they return home. This would provide a link that is currently missing for the women.

There is also a need to provide support groups for women to meet and discuss progress and feelings with other women MI survivors. Support groups were identified as a need by the women in this study. Nurses could impact practice by going into the community or establishing groups that could be helpful to women recovering from an MI. The researcher contacted the American Heart Association to inquire about services such as support groups for women post MI. Currently, there are no services available for the women. There are mixed gender groups available for men and women who have had MI's, coronary artery bypass surgery, and automatic internal defibrillators implanted, but none specifically for women.

Perry and Rosenfield (2005) conducted group sessions with three women who had survived a heart attack. The women in the study were given educational articles and notebooks about cardiovascular disease prior to discharge from the hospital. A nurse reviewed the content with the women before discharge. During the year post MI, the women continued to receive educational information. The purpose of the focus groups was to gain feedback regarding the educational content that had been distributed to the women. At follow-up, the women were one year post MI. During the group session the three participating women talked solely about their MI's and the symptoms experienced. What happened during the focus sessions was the women began

sharing their personal experiences with each other, which changed the initial purpose of the group. They discussed the choices made to seek or delay seeking treatment prior to the MI. Through the process of being together in the group the women disclosed many experiences and they developed relationships or connections during the session. The women cried together, shared experiences, and laughed. Through the discussion the women learned that each had unique symptoms regarding their MI's which resulted in an educational session. The original idea for the group session was to be focused on education in relation to heart disease and the use of materials distributed to the women for learning, but this turned into a different group experience. The authors concluded that such groups for other post-MI women post MI could be very helpful. Women need to connect with others and share experiences and learn from each other. These findings reflect what the participants in the present study have identified as a need for them during recovery. They want to talk about their experience and they want to validate what they are feeling.

Findings of the present study bear similarities to a 1997 study conducted by Benson, Arthur, and Rideout (1997). A sample of 14 women ranging in age from 39 to 87 years participated in focus group interviews. The findings from this study revealed four major themes. The first theme was titled "validation." The women would ask each other questions about the actual heart attack, the recovery, and living. In the study the women had many concerns pertaining to the immediate recovery period at home. A second theme was identified as "perceived gender differences." This theme included discussions from the women and the manner in which they were treated by health care providers. The

women felt they were not taken seriously. One woman stated, “having an MI is like having a man’s illness in a man’s world.” The third theme identified from the study was “role expectations/role tensions.” The women discussed feelings of protecting their families and continuing their roles of mother, wife worker. The fourth theme from the study was titled “helps and hindrances” to recovery. In this theme the women spoke of not being listened to and the need for a support group. They felt a resource person was needed to check on them or call them at home for questions.

As in the study by Benson, et al. (1997), the women in the current study needed validation from others. Although the women were individually interviewed, many of the same issues surfaced as in the group sessions. Not being taken seriously was a complaint among the participants in the current study. Also the women in the current study had a need to protect others in the family and not share with them how they really felt. The women in the current study also voiced the need to have a support group or a contact person after they went home.

Because cardiac disease continues to be ranked as the number one killer of women (AHA, 2008), the need to support women after having a first MI is obvious. The findings of this study coincide with current literature supporting the fact that women do not know the symptoms of an MI (AHA, 2008). The women in this study did not recognize the symptoms of their heart attack, and they feel they will not be able to identify symptoms of an MI in the future. The symptoms of an MI can range from generalized feelings of fatigue and nausea to arm and elbow pain. Due to the generality of the symptoms the women in this study did not realize they were experiencing a cardiac ischemic event.

Due to the emotions of anxiety and depression women need to be aware of the psychosocial dynamics that could occur during MI recovery. Anxiety is defined by Stedman's (1995) as apprehension of danger and dread along with restlessness, tension, an increased heart rate, and dyspnea that is unattached to an identifiable stimulus. According to Stern (1984) anxiety is the most common psychological response after a cardiac event such as an MI. Martens, Smith, & Denollet (2007) reported anxiety as a harmful emotion for women post MI. Some authors have discussed the time of leaving the hospital and returning home after experiencing an MI as being very stressful, and further research during recovery is needed (Chiou, Potempa, & Buschman, 1997). Daly et al. (2000) depicts recovery after an MI as a complex process with fear and uncertainty for women. The findings of this study support the significance of anxiety, fear, and uncertainty among recovering women. During the years of working in the hospital as a nurse, I never realized the difficulty experienced by midlife women during recovery. Each woman participant in the present study discussed frequent occurrences of anxiety, especially when first returning home.

Sjöström-Strand and Fridlund (2006) conducted a phenomenographic study of women coping with stress at the time of and after an MI. This study indicated that after being discharged from the hospital women were unable to cope and felt paralyzed. However, sharing experiences in a group was found to be helpful for the women and offered feelings of confirmation from other women. The women in the present study expressed an interest in support groups for women who have experienced an MI. There are currently no support groups for women who have experienced an MI and this could

be beneficial to many women during recovery. Better education and preparation for home recovery may decrease anxiety and help women to properly deal with depression by providing support.

Implications for Hospital and Community Educational Programs

Nurses can be role models for women post MI and can influence women to make positive health changes (Clement, Jankowski, Bouchard, Perreault & Lepage, 2002; Miracle, 2006). Nurses are with women MI patients during their hospitalization and have opportunities to discuss educational issues with them. The method of delivery of hospital education should be an area of improvement for the future. Hospital stays are shorter and the time needed to educate patients may often be filled with other activities. In today's fast paced hospital environment individual patient education has become cookie cutter computer print outs that may be given to anyone. Most materials are developed for readers at the third grade level and are not gender specific. The women in this study identified certain needs once they returned home and were not able to ask questions. While in the hospital environment, the women were still dealing with the initial shock of what has happened to their bodies and were not be able to ask necessary health related questions until returning home. This coincides with the disorienting dilemma of transformational learning. It is impossible to remember details when an individual is trying to absorb a situational crisis or traumatic experience. There needs to be time to reflect on what has happened and what it means.

The findings in this study coincide with those of Gaston (2003). Gaston (2003) identified that patients who have received information in the hospital may have difficulty

being able to recall and understand the information after going home. While in the hospital, learning may not occur due to the blast of reality that has impacted the lives of women who have suffered a heart attack. Scott and Thompson (2003) propose that semi-structured interviews of patients may be a valuable method for meeting the patient's needs. Determining the needs of the patients by interviewing them would allow health care providers to give personal instructions for them and their lifestyles.

Literature suggests that initially, during recovery from an MI, role adjustments may be more difficult because of fatigue (Varvaro, Sereika, Zullo & Robertson, 1996). The present study also identified that the roles of women returning home after having an MI were interrupted and temporarily changed during the recovery phase. Although the impact of having the MI was overwhelming for the women, the need to maintain their role in the family was important. Women wanted to return to household chores and caretaking of the family. According to Oakley (1974) women feel obligated to get the housework done. During recovery a struggle exists for women returning to household activities. They may feel too fatigued to be able to perform as many household chores as they once did. Making decisions about cleaning the house, cooking, and returning to work present challenges for midlife women who are strapped with all of these roles. Careful interviewing of the women can allow health care providers to better prepare them for recovery. The women need to have discussions about household tasks and returning to work.

Finally, nurses getting involved with the American Heart Association and participating in campaigns such as Go Red Day for Women can help educate the

community and families regarding women and cardiovascular disease. Go Red Day for Women began in 2004 (AHA) to raise awareness for women with cardiac disease. The campaign has grown and more businesses are now participating with this event. However, education for women and cardiovascular disease needs to occur every day. Nurses have opportunities for advocacy and participation in the community in many ways.

Implications for Nursing Research

This study did conform to the tenets of feminist research outlined by Hall and Stevens (1991). In this study the participants were all women, interviewed privately by a female researcher interested in their lived experience as whole persons, not “cardiac patients.” The main focus of the study was to gain an understanding of midlife women’s experiences during recovery of an MI. Coherence, credibility, and relevance were considered important for the study. According to McCormick and Bunting (2002), the application of feminist theory to research regarding women and cardiovascular disease lends credence to the value of women, their experiences and needs. It is anticipated that the findings of this study will benefit women.

There is still much to study in the general topic area of women with cardiovascular disease. There is a need to know more regarding women of various ethnic backgrounds, different age groups of women, and women returning to work post MI. More research is needed regarding Hispanic and African American women post MI. According to the AHA, (2008) heart disease is the number one killer in all ethnic groups

of women. Women who have survived a heart attack have experienced a traumatic event mentally, physically, and emotionally. Immediately after an MI and during the first three months there is increased stress and psychological adjustments (Smith et al., 1997; Westin, Carlsson, Erhardt, Cantor-Graac, & McNeil, 1999; Westin, Carlsson, Israelsson, Willenheimer, Cline, & McNeil, 1997). The findings of this study support other findings indicating psychological issues during recovery. For many women these issues may not be addressed. More research is needed to determine the impact of psychological adjustments post MI and how to alleviate them.

According to a sizeable amount of research, all midlife women are stressed and performing multiple roles (e.g., Thomas, 1990). More research is needed to help identify methods to assist women returning home after heart attacks to meet their health care and role performance challenges. There has been groundbreaking research on older women by Jean McSweeney and colleagues, but more research on midlife women is needed. Nurse researcher Linda LaCharity (1999) reported that younger women with heart disease also identified multiple roles contributing to stress. The women in her study ranged in age from 31 to 47. Participants in her study identified stressors such as children, home responsibilities including meal preparation, and careers. Based on the current study, midlife women continue to struggle with balancing these multiple roles and stressors. Thus, all women should be studied to better prepare them to face a new life complicated by heart disease.

In this study, the theme titled, “Knowing/Not Knowing” clearly speaks volumes for all health care providers to improve the method of educating women who have

experienced an MI. In this study the emergency medical services did not know a midlife woman was having a heart attack. The emergency department nurses and staff did not know in several cases that the women were having MI's. Finally, for some of the women in this study, the physicians did not know the women were experiencing an MI. There were comments reported by the women such as, "they didn't listen and they didn't diagnose properly." These findings regarding misdiagnosis are consistent with the findings of McSweeney, Lefler, and Crowder (2005). More research should be performed with all ages of women to identify their needs and to evaluate educational areas of improvement for the future.

Implications for Undergraduate Nursing Education and Family Education

The findings of this study indicate a need to better educate student nurses regarding women and myocardial infarction. There are differences in the symptomatology, presentation, and recovery of MI events between men and women. Undergraduate nursing education typically does not teach gender specific disease processes such as cardiovascular disease. Cardiovascular disease for men and women has similarities as well as differences. Similarities include the dynamics of a cardiac event such as an MI, which can leave an individual feeling weak, devastated, and faced with making lifestyle changes. Thus, a disorienting dilemma is not gender specific. Experiencing an MI creates a crisis, which impacts all individuals. Differences include the response to the MI, responses from the family members, gender specific role expectations and return to work. Nursing education should incorporate gender specific changes, psychosocial issues, and responses to an MI into the curriculum of medical

surgical nursing. Nurse educators must be prepared to teach gender specific care for cardiac patients as well as other diseases.

Nurses working in hospitals or other health care facilities should be more knowledgeable about teaching families of women experiencing and surviving MI's since heart disease is the number one killer of women. Reaching out to family members while women are hospitalized with an MI would benefit both women and their families by encouraging dialogue and education. The family needs to know that the woman must rest after returning home. Families must provide assistance with household tasks as well as emotional support. Nurses need to talk to women and families while they are in the hospital and tell them that it is normal to fear death. If women are given information about their psychosocial distress, they may adjust and recover knowing they are not facing these feelings in isolation. They need to know that post – MI depression can be treated by medication and counseling. Physicians should also discuss the emotional and psychosocial responses post MI with women and families prior to hospital discharge. The women in this study all said they were not informed about emotional and psychosocial feelings that occur post MI. This is a component of nursing education that must be addressed immediately in health care facilities.

Transformational Learning

Midlife women post MI often experience a disorienting dilemma during recovery. Experiencing an MI can result in an internal and external personal crisis according to Mezirow (2003). The MI event caused the women to self reflect and critically evaluate themselves in order to make changes in their lives. A change was

necessary to survive. During recovery the women experience a transformation and eventually learn to make lifestyle changes to improve their health. Usually, transformational learning results in a positive outcome or transition. For example, literature about cancer often indicates that patients viewed the disease as a catalyst for personal growth (Carver & Antoni, 2004). In a different study by Siegel and Scrimshaw (2000) people found growth and benefit after diagnosis with HIV. The cardiac patients in Watson's study (2002) identified a theme of "seeking God's purpose" as a positive change in their lives. However, the women in this study did not report their experiences in a positive manner regarding personal growth or deepened spirituality.

The disorienting dilemma of having the MI created many feelings in the participants of this research. After the MI, the women did self reflect to try to put the pieces together regarding the time before, during, and after the MI. After going home to recover, the women continued to self reflect. Finally over a period of time, a transformative phase of learning seemed to occur for some, but not all, participants. They acknowledged that they had an MI at a relatively young age but survived. They learned to make choices, such as altering some plans and role responsibilities. Women need to be better educated regarding cardiovascular disease. A health crisis can bring forth a transformation. The findings of this study indicated that lack of knowledge hampered recovery after an MI. Quality preparation for discharge from the hospital could make the transformation easier for them. In this study, the women returned home and tried to rest initially, but then had questions regarding household chores and returning to

work. They were not prepared for the onset of emotions and the feelings of fear. For some of the women, years have passed but fear and anxiety continue to exist.

Midlife women post MI must learn to live with an unmended heart. It is difficult to return to a sense of normalcy after having a heart attack. In contrast, women who have had an MI and coronary artery bypass surgery (CAB) are visited by members of the Mended Hearts, a support group of the American Heart Association. The Mended Hearts members have all had a CAB and can share their experiences with individuals preparing for CAB or post surgery. Women who have experienced an MI without surgical repair are visited by no one. It seems that their hearts mend slowly, if ever.

Conclusion

Existential phenomenology was the method chosen for this study. This method has allowed a greater understanding of midlife women recovering from an MI. The women in this study have told their stories so that they may help others. Now is the time for nurses to gain a better understanding of what women MI survivors are facing once they return home. National awareness campaigns such as *Go Red Day for Women* has brought more attention to the public regarding women and heart disease. Still more needs to be done for women who are at risk for and who survive an MI.

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APPENDIX A

Consent to Participate

INFORMATION

You are invited to participate in a research study. The purpose of the study is to describe the experience of surviving a heart attack. This study may nurses to better understand women who have experienced a heart attack.

You will be interviewed on one or two occasions by Sherri Stevens RN, MSN at a private location of your choice. The interviews will take 1 to 2 hours and will be audio taped because everything you say is important. If you agree, you will be contacted later by Sherri Stevens to discuss the study findings.

BENEFITS and RISKS

The benefits will be to allow you to discuss your experience with a nurse researcher. Some people who have been part of studies such as this have found it to be helpful. There are minimal risks to you but a potential risk is talking about experiences may be upsetting. If you become upset Sherri Stevens will end the interview at any time.

CONFIDENTIALITY

All study records will be kept confidential. No reference will be made in written or oral reports which would identify you to the study. The typed transcripts may be discussed in a research group. The transcriptionist and members of the research group will sign a confidential form. Data will be stored and secured. The data will be available only to persons conducting the study.

CONTACT INFORMATION

If you have questions at any time about the study you may contact the researcher, Sherri Stevens RN, MSN.

I have read the above information and agree to participate in this study. I have received a copy of this form.

Participant's Name (print) _____

Participant's Signature _____ Date _____

Researcher's Name (print) _____ Date _____

APPENDIX B

Transcriber Pledge of Confidentiality

As the transcribing typist of this research project I understand that I will be hearing tapes of confidential interviews. The information in these transcripts has been revealed by research participants who participated in this project in good faith that their interviews would remain strictly confidential. I understand that I have a responsibility to honor this confidentiality agreement. I hereby agree not to share any information in these tapes with anyone except the primary researcher of this project. Any violation of this agreement could constitute a serious breach of ethical standards, and I pledge not to do so.

Print Name

Signature

Date

APPENDIX C

Demographic Information

Name: _____

Age: _____

Date of Heart Attack: _____

Married: _____ Single: _____ Divorced: _____ Widowed: _____

Education: _____

Number of Children: _____

Number of Children Living at Home: _____

Employed: _____

APPENDIX D

Phenomenology Group Confidentiality Agreement

As a member of the phenomenology group, I understand that I will be reading transcripts of confidential interviews for the research study, "Recovery of Midlife Women From Myocardial Infarction." The information in these transcripts has been revealed by participants who have volunteered and assured that their interviews would remain confidential. I agree not to share any information in these transcripts with anyone other than the investigator, Sherri Stevens or other members of the phenomenology group. Any violation of this agreement would result in a breach of ethical standards and I pledge not to do so.

Signature _____

Date _____

VITA

Sherril Linn Stevens graduated from Columbia State Community College in 1982 as a Registered Nurse. She received a BSN from Middle Tennessee State University in 1992 and an MSN in Adult Acute Care from the University of Alabama in Huntsville in 1994. She currently teaches at Cumberland University in Lebanon, Tennessee. She received a Doctor of Philosophy in Nursing degree from the University of Tennessee, Knoxville, in May 2008.