



Health perception, morale, social functioning, preoccupation with health, and social support among postoperative coronary artery bypass graft surgery patients
by Cynthia Ann Ceynar

A thesis submitted in partial fulfillment of the requirements for the degree of MASTER OF NURSING
Montana State University
© Copyright by Cynthia Ann Ceynar (1986)

Abstract:

The purpose of the study was to describe and quantify the health perception, morale, social functioning, preoccupation with health, and social support among postoperative coronary artery bypass graft surgery (CABGS) patients. Review of the literature and professional experiences and observations indicated that postoperative CABGS patients experience problems in these areas. An ex-post facto descriptive design was used to implement the study.

Twenty CABGS patients who were from three months to one year postoperative comprised the sample. All respondents had surgery at the same area medical center. Data were collected by personal administration of Thomas F. Garrity's (1972) Social and Psychological Status of Myocardial Infarction Patients During Recovery Questionnaire, Roger E. Mitchell's (1979) Close Attachments Scale, and a demographic data sheet.

Results were analyzed with descriptive statistical procedures including ranges, frequency, distributions, percentages for frequency distributions, mean, standard deviation, and variance. Analysis of the data revealed that respondents have fairly positive health perceptions, high morale, and participate in all activity categorized at least as much as they did preoperatively. Additionally, respondents reported themselves to have low preoccupation with their health and positive, reciprocal social support.

Implications were made for nursing assessments of patient health perceptions, activity levels', and social support resources, and provision of educational programs for patients and their families about the rehabilitation process. Recommendations for further research included instrument standardization and replication of the study with a larger sample.

HEALTH PERCEPTION, MORALE, SOCIAL FUNCTIONING, PREOCCUPATION
WITH HEALTH, AND SOCIAL SUPPORT AMONG POSTOPERATIVE
CORONARY ARTERY BYPASS GRAFT SURGERY PATIENTS

by

Cynthia Ann Ceynar

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF NURSING

MONTANA STATE UNIVERSITY
Bozeman, Montana

June 1986

APPROVAL

of a thesis submitted by

Cynthia Ann Ceynar

This thesis has been read by each member of the thesis committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

August 8, 1986
Date

Heaven Yuskovich
Chairperson, Graduate Committee

Approved for the Major Department

August 11, 1986
Date

Anna M. Shannon
Head, Major Department

Approved for the College of Graduate Studies

August 13, 1986
Date

Henry L. Parsons
Graduate Dean

STATEMENT OF PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirements for a master's degree at Montana State University, I agree that the Library shall make it available to borrowers under rules of the Library. Brief quotations from this thesis are allowable without special permission, provided that accurate acknowledgment of source is made.

Permission for extensive quotation from or reproduction of this thesis may be granted by my major professor, or in her absence, by the Director of Libraries when, in the opinion of either, the proposed use of the material is for scholarly purposes. Any copying or use of the material in this thesis for financial gain shall not be allowed without my written permission.

Signature

Cynthia Ann Ceynar

Date

August 8, 1986

ACKNOWLEDGMENT

I would like to extend my heartfelt thanks to my committee chairpersons: Lee Christie, R.N., M.S., Jacqueline Taylor, R.N., Ph.D., and Eleanor Yurkovich, R.N., M.S.N., and to my committee members, Sharon Hovey, R.N., M.N., and Helen Lee, R.N., Ph.D. Their continued support and guidance have been sincerely appreciated. I would also like to acknowledge my husband, Robert Martin, my daughter, Edelene Ceynar, and my mentor, Sharon Dieziger, R.N., B.S.N., for their support, love, and understanding throughout this endeavor.

TABLE OF CONTENTS

	Page
APPROVAL	ii
STATEMENT OF PERMISSION TO USE	iii
VITA	iv
ACKNOWLEDGMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	vii
ABSTRACT	x
1. INTRODUCTION	1
Background and Rationale	1
Statement of the Problem	2
Research Question	3
Purpose	4
Definition of Terms	5
Basic Assumptions	6
Summary	6
2. LITERATURE REVIEW	8
Introduction	8
Health Perception	9
Morale	12
Social Functioning	13
Preoccupation with Health	16
Social Support	18
Summary	21
3. METHODOLOGY	24
Introduction	24
Sample Selection	24
Instrument Description	25
Instrument Reliability and Validity	29
Protection of Human Rights	30

TABLE OF CONTENTS--Continued

Pilot Study	31
Data Collection	32
4. RESULTS	34
Introduction	34
The Sample	34
Health Perception	37
Morale	40
Social Functioning	42
Preoccupation with Health	48
Social Support	50
5. DISCUSSION	61
Conclusions	61
Limitations of the Study	68
Implications	68
Recommendations	70
REFERENCES	72
References Cited	73
APPENDICES	76
APPENDIX A - Letter to Potential Respondents	77
Letter to Potential Respondents	78
APPENDIX B - Statement of Rights	79
Statement of Rights	80
APPENDIX C - Letters of Approval	81
Letter of Approval, Thomas F. Garrity, Ph.D.	82
Letter of Approval, Roger E. Mitchell, Ph. D.	83
APPENDIX D - Instruments	84
Social and Psychological Status of Myocardial Infarction Patients During Recovery Questionnaire	85
Close Attachments Scale	93
Demographic Data	95
APPENDIX E - Study Evaluation Tool	97
Study Evaluation Tool	98

LIST OF TABLES

Table		Page
1	Intercorrelation Data for the Social and Psychological Status of Myocardial Infarction Patients During Recovery Questionnaire	29
2	Length of Time Since Surgery in Months	35
3	Age Distribution for Respondents	35
4	Respondents' Previous and Chronic Illnesses	37
5	Psychophysiological Disability Frequency Distribution, Mean, Standard Deviation, and Variance	38
6	Assessment of Overall Health Status Frequency Distribution, Mean, Standard Deviation, and Variance	39
7	Morale Frequency Distribution, Mean, Standard Deviation, and Variance	41
8	Social Functioning: Respondent Comparisons of Pre-operative Activity Participation with Current Activity Participation Frequency Distribution, Mean, Standard Deviation, and Variance	43
9	Respondents' Comparison of Present Income to Pre-operative Income	44
10	Assessment of Activity Level Frequency Distribution, Mean, Standard Deviation, and Variance	46
11	Assessment of Social Life Frequency Distribution, Mean, Standard Deviation, and Variance	47
12	Preoccupation with Health Frequency Distribution, Mean, Standard Deviation and Variance	49
13	Means for Overall Health Status, Morale, Activity Level, Social Life, and Preoccupation with Health	50

LIST OF TABLES--Continued

14	Mean and Standard Deviation for Social Support Received from and Provided to All Sources, Family Members, and Peers	52
15	Mean and Standard Deviation for Number of Intimates Listed per Respondent, Family Member Intimates per Respondent, and Peer Intimates per Respondent	53
16	Length of Time Intimates were Known by Respondents	54
17	Age Range of Respondents' Intimates	55
18	Occupational Groups of Respondents' Intimates	56
19	Respondents' Frequency of Contact with Intimates.	57
20	Context of Recruitment	58
21	Respondents' Distance in Miles from Intimates	59

ABSTRACT

The purpose of the study was to describe and quantify the health perception, morale, social functioning, preoccupation with health, and social support among postoperative coronary artery bypass graft surgery (CABGS) patients. Review of the literature and professional experiences and observations indicated that postoperative CABGS patients experience problems in these areas. An ex-post facto descriptive design was used to implement the study.

Twenty CABGS patients who were from three months to one year postoperative comprised the sample. All respondents had surgery at the same area medical center. Data were collected by personal administration of Thomas F. Garrity's (1972) Social and Psychological Status of Myocardial Infarction Patients During Recovery Questionnaire, Roger E. Mitchell's (1979) Close Attachments Scale, and a demographic data sheet.

Results were analyzed with descriptive statistical procedures including ranges, frequency, distributions, percentages for frequency distributions, mean, standard deviation, and variance. Analysis of the data revealed that respondents have fairly positive health perceptions, high morale, and participate in all activity categorized at least as much as they did preoperatively. Additionally, respondents reported themselves to have low preoccupation with their health and positive, reciprocal social support.

Implications were made for nursing assessments of patient health perceptions, activity levels, and social support resources, and provision of educational programs for patients and their families about the rehabilitation process. Recommendations for further research included instrument standardization and replication of the study with a larger sample.

CHAPTER ONE

INTRODUCTION

Background and Rationale

America's number one health problem today is cardiovascular disease. Cardiovascular disease affects some 40 million Americans, and of those 40 million, four million suffer from coronary artery disease (American Heart Association, 1983). For people developing coronary artery disease, an estimated 1.5 million will have a myocardial infarction each year (American Heart Association Statistics, 1983). Of these 1.5 million, 100,000 will have coronary artery bypass graft surgery (Zyzanski, Stanton, Jenkins, & Klein, 1982).

Coronary artery bypass graft surgery (CABGS) was designed as a treatment for coronary artery disease with the specific objectives of decreasing the frequency and severity of angina and improving the functional myocardial status (Hultgran, Takaro, & Detre, 1978; Kloster, Kremakau, & Ritaman, 1979; Mather, Guinn & Anastassiades, 1975). The frequency and severity of angina have been viewed as primary factors in limiting the individual's ability to carry out a full range of life functions. With the reduction or elimination of angina, the individual was expected to resume a full range of life functions.

However, health care providers are discovering that many heart surgery patients do not resume a full range of normal activities postoperatively in spite of their physicians' appraisals of improved physical condition (Brown & Rawlinson, 1975; Gundle, Reeves, Tate, Raft, &

McLaurin, 1980). These patients may even describe their postoperative condition as worsened with complaints of fatigue, weakness, loneliness (Wilson-Barnett, 1981), and difficulty with memory, and may also develop preoccupation with physical symptoms and bodily functions (Ramshaw & Stanley, 1981). Gundle et al. (1980) found that of the 30 patients in their study, 83 percent were unemployed, and 57 percent were sexually impaired despite good physiological outcome as measured by treadmill and cardiac function. This same group also experienced low self-esteem, lack of pleasure from close relationships, and constricted social life (Gundle et al., 1980). Zyzanski, Stanton, Jenkins and Klein (1981) suggested that psychological impairments may greatly outnumber the physical impairments in postoperative CABGS patients; they recommended that the definition of a successful recovery be expanded beyond the physical aspect of pain to include the aspects of psychosocial adjustment. Although there has been considerable success in attaining the objectives of decreasing the frequency and severity of angina and improving myocardial status with CABGS (Health Science Review, 1984) postoperative study findings indicate that a significant number of patients experience psychosocial adjustment problems.

Statement of the Problem

Coronary artery bypass surgery is a procedure designed to improve the individual's quality of life by reducing or eliminating the angina preventing the accomplishment of chosen activities. The majority of research done to date on post CABGS patients has focused on physical and physiological aspects of recovery (Loop, 1983a, & Wilson-Barnett, 1981).

According to this type of research, CABGS is considered a "success" if the angina is relieved or eliminated, and cardiac function is improved. This unidimensional view of recovery is proving inadequate, as recent studies indicate that a significant number of post CABGS patients who have improved cardiac function and relief from angina do not resume a full range of normal activities and are experiencing psychosocial adjustment problems. Psychosocial problems may actually outnumber physical problems for post CABGS patients (Zyzanski et al., 1981).

Research about psychosocial problems remains limited among post CABGS patients. In comparison to the research on physiology, morbidity, and mortality, research on psychosocial adjustment is rare (Wilson-Barnett, 1981). The research that has been done on psychosocial adjustment points to problems in the areas of health perception, morale, social functioning, and preoccupation with health.

Research Question

On the basis of this researcher's past experiences with coronary artery bypass patients and review of the related literature, the following research question was formulated:

What is the health perception, morale, social functioning, preoccupation with health, and social support of patients three months to one year after coronary artery bypass graft surgery?

Purpose

The purpose of the study was to quantify and describe the following psychosocial adjustment factors: health perception, morale, social functioning, preoccupation with health, and social support among postoperative CABGS patients. This researcher's interest in psychosocial adjustment after CABGS was stimulated through professional experiences and observations of postoperative patients in a cardiac rehabilitation program. Follow-up indicated that some of these patients had not returned to normal social and vocational activities after CABGS in spite of the physician's appraisal of their physical status as significantly improved, and the expectation that their improved physical status would permit return to normal level of functioning. In addition, these patients demonstrated behaviors identified in the literature (Gundle et al., 1980; Wilson-Barnett, 1981; & Zyzanski et al., 1981) as indicative of psychosocial problems. In view of these patient behaviors, this researcher considered that psychosocial adjustment, or the lack of it, may be significant in terms of returning to a normal level of functioning after CABGS surgery and, therefore, selected this area for investigation.

Definition of Terms

The following operational definitions were employed in the development of the study:

Health perception referred to the respondent's self-evaluation of his/her health. The variable was operationalized using the health

perception subscale of Garrity's (1972) Social and Psychological Status of Myocardial Infarction Patients during Recovery Questionnaire.

Morale referred to the respondent's self-evaluation of his/her happiness or sadness. The variable was operationalized using the morale subscale of Garrity's (1972) Social and Psychological Status of Myocardial Infarction Patients during Recovery Questionnaire.

Social functioning referred to the respondent's self-evaluation of his/her participation in activities of daily living, and recreational, social, and vocational activities. The variable was operationalized using the social functioning subscale of Garrity's (1972) Social and Psychological Status of Myocardial Infarction Patients during Recovery Questionnaire.

Preoccupation with health referred to the respondent's self-evaluation of how engrossed he/she was with thoughts about health. The variable was operationalized by using the preoccupation with health subscale of Garrity's (1972) Social and Psychological Status of Myocardial Infarction Patients during Recovery Questionnaire.

Social support was defined as material assistance, emotional support, companionship, and information received from those individuals with whom the respondent feels close (Mitchell, 1979). Social support was operationalized using Mitchell's (1979) Close Attachment Tool.

Coronary Artery Bypass Graft Surgery CABGS was defined as an invasive procedure in which stenosed coronary arteries are bypassed with an autogenous vein or artery graft to provide for revascularization of the myocardium (Beyers & Dudas, 1977).

Post Coronary Artery Bypass Graft Patient was defined as an individual who had experienced coronary artery bypass surgery. For the purpose of this study, subjects were selected who were three months to one year postoperative.

Basic Assumptions

The following basic assumptions were utilized in the development and implementation of this study:

1. Patients can honestly describe and quantify their health perceptions, morale, preoccupation with their health, and social functioning.
2. Patients can honestly describe and quantify their social support systems.
3. Patients' health perceptions are important in their acceptance or rejection of the sick role.

Summary

Research done to date on post CABGS patients has focused on physical and physiological aspects of recovery. According to this type of research, CABGS is considered "successful" if the angina is relieved or eliminated and cardiac function is improved. This unidimensional view of recovery has proved inadequate. Psychosocial adjustment problems described in the literature as limiting post CABGS patients' return to normal activities include fatigue, anxiety, worry about health, and social isolation. Psychosocial problems may outnumber physical problems for post CABGS patients (Zyzanski et al., 1981).

Wilson-Barnett (1981), a nurse and lecturer, called for continued research on psychosocial adjustment after CABGS. Further study on psychosocial adjustment after CABGS will augment the knowledge base to guide the assessment and intervention efforts of nurses and allied health professionals in working with post CABGS patients.

CHAPTER TWO

LITERATURE REVIEW

Introduction

Many psychosocial factors may be considered in the investigation of patients' psychosocial adjustment after an illness or surgery. Some of the factors which have been studied among post CABGS patients include emotional status, social network, and employment (Zyzanski, Stanton, Jenkins, & Klein, 1981); anxiety and depression, hostility, self-concept, and vigor and fatigue (Wilson-Barnett, 1981); employment, sexual functioning, psychiatric symptomatology, and psychosocial adjustment to illness (Gundle, Reeves, Tate, Raft, & McLaurin, 1980); depression and cognitive dysfunction (Willner & Rabiner, 1982); and perceived health, self-concept, body anxiety, depression, and daily activities (Roviaro, Holmes, & Holmsten, 1984). Despite an increasing emphasis on psychosocial adjustment after CABGS as evidenced by the above-mentioned studies, the research in this domain still remains rather limited. Compared to the thousands of papers done on the physiological and technical aspects of CABGS (Loop, 1983a), the research done on postoperative psychological status is an exception to the CABGS literature.

The purpose of this chapter is to present a review of the related literature and examine the concepts under investigation that provide the theoretical rationale for the study. Studies pertaining to the psychosocial factors of health perception, morale, social functioning,

preoccupation with health, and social support among heart patients are reviewed. The chapter is finalized by a summary of the literature review.

Health Perception

Garrity (1972, 1973a, & 1973b) was one of the first investigators to examine health perception among heart patients (those having experienced a myocardial infarction). His primary focus was the assessment of predictors of return to work among patients suffering a myocardial infarction. Garrity (1973a, & 1973b) found that there was no correlation between the individual's health perception and the cardiologist's appraisal of the individual's physical status. He also found that the individual's health perception was a better indicator of the individual's recovery than any of the other physical, social, or psychological variables he studied. Garrity suggested that patient perceptions are important indicators of the recovery process, although they are usually ignored in favor of more concrete variables such as socio-economic status and the severity of the myocardial infarction.

Brown and Rawlinson (1975) had similar findings to Garrity's when they measured the tendency to accept or reject the sick role among 150 valve replacement patients. Tendency to reject the sick role was measured by a semantic differential scale in which respondents were asked to rate "myself after heart surgery" compared to "most persons who are sick." Regression analysis was done to determine which variables were predictors of postoperative tendency to reject the sick role. Preoperative tendency to reject the sick role, depression, age, gender,

and duration of illness prior to surgery were all significant indicators of postoperative tendency to reject the sick role at a .05 level or greater. There was no significant relationship between the patient's actual physical status (measured by the New York Heart Association Functional Status scale) and the tendency to reject the sick role. This finding supports Garrity's suggestion of importance of patient perception in recovery.

Ramshaw and Stanley (1981) found that individual personality and coping style influenced the post CABGS patient's perceptions of surgical outcome, and that these perceptions were relatively independent of cardiac symptomatology. They studied 53 patients (43 males and 11 females) with a mean age of 55 who were 12 to 27 months postoperative. Measures obtained from subjects included degree of angina, scores obtained on four standard personality tests: Eysenk (1975) Personality Questionnaire, Rotter's (1966) Internal-External Locus of Control, a modified version of Butler-Haigh self-esteem measure (Eston, Stanley, & Burrows, 1978), Bernard and Leopold's (1963), Social Desirability Test, and a written description of the main effects the surgery had on their life-styles (Ramshaw & Stanley, 1981). Patients (n=15) who had a high mean neuroticism score were seemingly preoccupied with physical symptoms and bodily functions and complained of "extreme tiredness or shortness of breath" even though CABGS had reduced or eliminated the angina. Discriminate analysis of the variables indicated that perception of surgical effects on life style was unrelated to gender, age, time since operation, presence or absence of angina, and employment status. Although these particular findings differed from those of Brown and

Rawlinson (1975) as far as variables related to postoperative rejection of the sick role, the similarity between the two studies was the lack of relationship between the respondents' perceptions and their actual physical health status.

LaMendola and Pelligrini (1979) found that quality of life improvement was associated with the patients' postoperative experiences (activity and affiliations) and the patients' perceptions of physical limits. They defined quality of life as, "the individual's achievement of a satisfactory social situation within the limits of perceived physical capacity" (LaMendola and Pelligrini, 1979, p. 457). In their study, 95 CABGS patients (79 male and 16 female) with a mean age of 54.5 years at the time of surgery, were interviewed from 6 to 37 months postoperatively for pre- and postoperative work status, job satisfaction, desire to return to work, social situation (who and what helped most), satisfaction with self, and perceived physical limits. Sixty percent of the sample were employed and perceived few or no physical limits. Of those who perceived themselves as physically limited, 59 percent were unemployed. The authors concluded that postoperative experiences and perceptions of physical limits were likely to influence the patient's desire to return to work, and even though older persons tended to retire after surgery, they still felt physically unlimited and were self-satisfied.

According to these studies, how a post CABGS patient perceives his/her health may influence whether the patient will exit from the sick role or not. It is indeed a problem if the return to full range of normal activities is limited by the post CABGS patients' level of

perceived health versus their actual physical condition. Further research is needed to describe and quantify health perception as a factor in the psychosocial adjustment of post CABGS patients.

Morale

Morale, or the overall level of happiness/sadness, has not been researched as a single variable among post CABGS patients. However, Zyzanski et al. (1981) included a happiness/sadness scale as a part of the "Current Emotional State" portion of their questionnaire in examination of medial and psychosocial outcomes for 949 heart surgery patients (724 CABGS and 225 valve replacements). Those respondents who described themselves as "relatively happy" (n=380) were currently working and free of medical and psychosocial problems.

Garrity (1973a), who studied 58 post myocardial infarction patients for social involvement and activeness as predictors of morale, had similar findings as Zyzanski et al. (1981k). Garrity based his study on activity theory from social gerontology. According to Garrity, the theory postulates that social involvement and activeness are primary determinants of morale among the elderly. As post myocardial infarction patients may experience reductions in social involvement and activity the same as the elderly, Garrity hypothesized that social involvement and activity were predictors of morale among post infarct patients. He subsequently found that employment and participation in non-associational leisure activities were significantly associated to morale in his study population. In addition, Garrity found the strongest predictor of

morale among his sample population to be the individual's health perception.

Health is a concern for American adults, and of special concern for people who have had CABGS is understandable and expected. Further, the state of one's health, or the perception of that state, may be of concern in terms of the individual's happiness or sadness. Determination of morale among post CABGS patients requires further assessment and, therefore, was investigated in this study.

Social Functioning

Employment/unemployment was the most frequently investigated activity area among post CABGS patients (Wilson-Barnett, 1981). LaMendola and Pelligrini (1979) noted that this focus on employment status after CABGS implies a certain justification for the cost of CABGS, which is about \$20,000 per operation (Zyzanski, Stanton, Jenkins, & Klein, 1982). According to LaMendola and Pelligrini (1979), the expense of the operation can supposedly be justified by the patient's resumption of gainful employment postoperatively.

Zyzanski et al. (1982) reported a variance in the literature on employment status of post CABGS patient ranging from 50 to 90 percent. Their study of 496 post CABGS patient was designed to determine the profile of the post CABGS patient who "typically returns to work" and possible profile differences between men and women. In addition, they investigated difficulties of those post CABGS patients who did not return to work and the possible effects of forced retirement on the post CABGS patient. Their questionnaire contained items for measurement of

demographic data, social background, life circumstances before CABGS, the surgical experience, emotional and social adjustment in the first postoperative year, and the current physical and emotional health. Employment data included changes in work status, changes in work environment, relationship with co-workers and employers, job title, physical exertion, job pressures, satisfaction, responsibility, and numbers of hours worked weekly before and after surgery. The authors found that 81 percent of the men and 58 percent of the women who were employed preoperatively returned to work postoperatively. Men more likely to return to work had higher incomes and professional jobs which required little physical exertion. For women, none of these variables were statistically significant. Of those respondents who did not return to work, only a small percentage experienced heart-related hospitalizations or recurrent angina or dyspnea. Those post CABGS patients who were forced to retire experienced higher morbidity than any other group in terms of repeat hospitalizations, other continuing health problems, and days requiring bed rest. The higher rate of morbidity among post open heart surgery patients (both valve replacement and CABGS) forced to retire was also a finding of an earlier study by Zyzanski et al. (1981). Results show that activity, particularly work, may be related to the recovery of the CABGS patient.

Hammermeister (1981) studied 1,850 CABGS patients for factors related to survival and the effect of CABGS on quality of life (this "Seattle Heart Watch Study" was designed to compare survival and quality of life between medically and surgically treated cardiac patients). Factors assessed in association with employment status included age,

education, functional class, extent of coronary disease, left ventricular function, physical activity associated with work, and preoperative employment status. Employment dropped from 75 percent preoperatively to the 62 percent postoperatively. In addition, Hammermeister (1981) found that instead of shifting to a job requiring lesser physical exertion postoperatively, patients shifted to retirement or unemployment. The single most significant factor in post surgical unemployment was the length of time the patients were unemployed preoperatively. Penckhofer and Holm (1983) investigated employment status among post CABGS patients as an objective indicator of quality of life. Thirty-four male post CABGS patients, aged 38 to 62 years, were interviewed three to eight months postoperatively for satisfaction with family, social, occupational, and sexual life (subjective indicators), and the intensity and frequency of anginal episodes, employment, and amount of physical activity (objective indicators). The respondents were split into two groups based on length of time since surgery. Group 1 members (n=17) were three to five months postoperative, defined as "beginning to return to normal or near normal activity." Group 2 members (n=17) were six to eight months postoperative, defined as "settled into their normal routines." Both groups were asked to rate the subjective and objective indicators for preoperative and present status, and there was a future projection for life satisfaction. The authors found that both groups had significant increases in the level of physical activity postoperatively and greater satisfaction with family life, social life, and sexual life after surgery. There was no significant difference in the number of hours worked per week postoperatively for either group. The

authors suggested that the absence of angina after surgery and increased certainty about the future were precipitators of their findings.

Loop (1983b) noted similar findings as Penckhofer and Holm (1983) in that relief of symptoms had been positively associated with return to work after CABGS surgery. Zyzanski et al. (1981) found that post heart surgery patients who were forced to retire had poor psychosocial recovery and that the poor psychosocial outcomes were not attributable to medical problems. Although LaMendola and Pelligrini (1979) found high unemployment and retirement rates in their sample population, the majority of their sample (60 percent) felt they had no physical limitations, which was considered a reflection of high satisfaction with surgical results. Since post CABGS patients may be physically active, although not gainfully employed, LaMendola and Pelligrini have suggested that productivity measures be used along with employment status to evaluate post-surgical activity levels. Wilson-Barnett (1981) drew similar conclusions in terms of assessing activity of post CABGS patients; she suggested that more research be directed at quantifying all activities of post CABGS, not just gainful employment. For these reasons, social functioning was included in this study, and was defined to include vocational, recreational, leisure, and volunteer activities.

Preoccupation with Health

As with morale, preoccupation with health has not been studied as a single item among post CABGS patients but has been included along with the investigation of other psychosocial factors (Pilowsky, Spence, & Waddy, 1979; Ramshaw & Stanley, 1981; and Thurer, Levine & Thurer,

1980-81). Preoccupation with health, voiced by CABGS patients, may have its basis in fear of the efficacy of the operation and the hazardousness of the surgery, as it is a fairly new procedure (Thurer et al., 1980-81). Additionally, coronary artery atherosclerosis is a progressive disease, demonstrated by the fact that atherosclerotic plaques will build up in grafts and may even occlude them (Loop, 1983a). The fear and worry about the recurrence of the disease has a sound basis in reality.

Thurer et al. (1980-81) found that one-third of their sample population (n=7) experienced "residual anxiety stemming from the operation" four months postoperatively. Of this group, 57.1 percent also experienced preoperative anxiety. This anxiety was defined as apprehensiveness and worry about the operation.

Ramshaw and Stanley (1981) found that 28 percent of their sample population (n=53) demonstrated somatic concern -- "Patient seems currently concerned about physical symptoms and bodily function" (p. 84). Forty-six percent of the group did complain of residual angina, although for six of these patients, the angina was rated as a grade one, which is angina "only on strenuous, rapid, or prolonged exertion" (p. 83).

Complete relief from angina was significantly associated with low health concern, low pain-related illness anxiety, low irritability, high illness vulnerability, low interpersonal discord, and high responsiveness to reassurance in the follow-up study conducted by Pilowsky et al. (1979) on 50 post CABGS patients. For these respondents, all of whom were male, the average age was 53.3 years and the average length of time since surgery was three months. The initial sample interviewed for

illness behavior using Pilowsky et al.'s (1979) Illness Behavior Questionnaire consisted of 122 respondents who were one week preoperative. Follow-up study consisted of assessing relief from anginal symptoms as either complete (good outcome), substantial relief, no better or worse, or death. Substantial relief, no better or worse, and death were considered "poor outcomes." Angina relief was then correlated with 11 factors of the Illness Behavior Questionnaire; factor seven, high responsiveness to reassurance, was most strongly associated with complete relief from angina, followed by low interpersonal discord, high illness vulnerability, low pain-related illness anxiety, low irritability, and low health concern.

Considering the significance of open heart surgery, it is reasonable to expect that CABGS patients will experience worry about their health, and several of the post CABGS patients cared for by this researcher voiced such concern. This worry about health was often focused on fear of recurrence of angina, heart attack, and/or heart surgery, potentially inhibiting resumption of normal activities. Further assessment of preoccupation with health among post CABGS patients is required to determine its significance in the recovery process; therefore, this factor was also included in the present investigation.

Social Support

Social support can be defined as the support accessible to the individuals through ties to other individuals, groups, and community (Lin, Ensel, Simeone, & Kuo, 1979). Cobb (1976) defined social support

as information leading the individual to believe s/he is cared for and loved, s/he is a member a network of mutual obligations, and that s/he is valued and esteemed. Mitchell (1979) conceptualized social support as material assistance, companionship, emotional support, and information. These definitions clarify and enhance the idea that social support may be a significant factor in the psychosocial adjustment for post CABGS patients.

According to Norbeck (1981), social support augments the individual's personal strength by leading the individual to believe s/he is valued and esteemed, and by moderating the effects of life transitions. She further stresses that the individual's perceptions of problematic experience can be reduced or neutralized, thereby aiding the individual in personal mastery. The feelings of esteem and mastery precipitate the security needed for generativity and risk-taking (Norbeck, 1981). These theoretical perspectives emphasize the significance of social support as a key factor in the assessment of an individual's psychosocial adjustment, particularly those experiencing a major life event.

LaMendola and Pelligrini (1979) found that positive affiliative experiences were related to lower level of perceived physical limits among post CABGS patients, and that spouses were of constant importance. They also noted that the closer the patients were to surgery, the more important hospital personnel were to the patient, but after the first postoperative year, the family "bears the main thrust of support for the patient" (LaMendola & Pelligrini, 1979, p. 460).

Wilson-Barnett (1981) had similar findings in her study. Respondents frequently mentioned social support as helpful, with the spouse

being particularly important; bachelors and widowers reported insecurity and loneliness upon return home after surgery. In Ballard's (1981) study of environmental stressors for 22 patients in the surgical intensive care unit, "missing your spouse" was ranked the number four stressor (chosen 88.2 percent of the time) out of forty possible items in a Q sort.

Finlayson (1976) studied the outcome of 76 myocardial infarction patients based on the wives' perception of support received from the network. Twelve months after infarction, the favorable outcome group (husband returned to work and wife defined the illness as over) differed from the unfavorable outcome group in the amount of perceived network support. Those respondents whose husbands were in the favorable outcome group received support from a wider range of network resources than the unfavorable outcome group.

Zyzanski et al. (1981) examined social networks as a portion of the respondents' "psychosocial outcome" in their study on medical and psychosocial outcomes for heart surgery patients (both valve and CABGS surgery). Their tool, "Current Social Network," was designed to measure the respondent's size of household, attendance at organizational or religious meetings, family's response during recovery (over-protection, adequate support, isolation or avoidance), and perceived affection from family members. Low scores on the "Current Social Network" scale were considered representative of deficits in psychosocial support and were more common in females, Type A personalities, and those respondents with lower levels of education.

This researcher's interest in social support was largely precipitated by personal experience in working with convalescing post CABGS patients. The majority of the patients made such comments as, "I couldn't have done this without my wife's help," or, "My neighbor will cut the lawn (or shovel snow, etc.)." Family and friends are usually the first persons sought out for reassurance and advice in times of crisis or illness by more than half the adults experiencing these problems (Gourash, 1978). For these reasons, social support was included in the present study for investigation.

Summary

The recovery process from any illness/injury involves many physiological, psychological, and social factors (Wilson-Barnett, 1981). The physiological factors include the patient's previous health status and risk factors, the presence or absence of complications, further hospitalizations, and the patient's gender (greater risk in males) (Wilson-Barnett, 1981). Psychological factors include the patient's personality, nervousness, self-concepts, the patient's IQ and understanding about health care, the patient's expectations and ideas about health care, and role flexibility (Wilson-Barnett, 1981). The patient's support system, financial situation, pre-morbid occupational status, and health care professional's expectations and advice are all social factors related to the recovery process as noted by Wilson-Barnett (1981). All of these factors have importance in the total picture of patient recovery, and the difficulty in addressing recovery in CABGS patients is apparently due to the lack of research on the psychosocial

factors that may affect it. The lack of research on psychosocial factors which may affect recovery among post CABGS patients along with this researcher's experiences in working with such patients, were the precipitators of the present study.

In summary from review of the research that has been done on psychosocial factors and recovery among post CABGS patients, two generalizations can be made. First, evidence indicates there are psychosocial problems among post CABGS patients in the areas of perception as related to surgery, activity resumption, especially vocational activity, and psychiatric symptomatology which persists for some time after the operation. Secondly, these psychosocial problems exist irrespective of the post CABGS patient's actual physiological status.

Description and quantification of health perception, morale, social functioning, preoccupation with health, and social support may have implications for change in current treatments and approaches for CABGS patients, both pre- and postoperatively, as the problems become more clearly identified. The likelihood of a successful recovery process, including resumption of full range of activities, could be enhanced if these psychosocial adjustment factors were better understood and considered as part of the pre- and postoperative recovery plan. This research is based on the assumptions that psychosocial adjustment after CABGS deserves the same emphasis and consideration which formerly has been given to physiological functioning; and, in addition, that patient perceptions are significant in terms of psychosocial adjustment, including their perceptions of preoperative status and future projections. With a multidimensional approach to patient care, the post CABGS

patient's recovery process will be enhanced to realize better the rehabilitation goal of resumption of full range of normal activities.

CHAPTER THREE

METHODOLOGY

Introduction

The purpose of the study was to describe and quantify health perception, morale, social functioning, preoccupation with health, and social support among a sample population of twenty post CABGS patients. For implementation of the study, an ex-post facto descriptive design was utilized. In using an ex-post facto descriptive design, the variables are operationalized and measured but not manipulated by the investigator (Polit & Hungler, 1983). The following sections describe the sample selection methods, the study design, the instruments used for data collection, and protection of human rights.

Sample Selection

The target population from which the prospective sample was drawn consisted of all of the individuals who have had coronary artery bypass surgery at the area medical facility one year prior to the study (April 1, 1982 to March 31, 1983). The area medical center is a 290-bed facility with a service area of approximately 200,000 people. Access to the target population was gained through prior arrangement with each patient's cardiologist.

There were two limitations made upon the potential respondents. First, the potential respondent had to be from three months to one year

