CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

HEALTH EDUCATION IN A CLINICAL SETTING:
A Pilot Study in Myocardial Infarction
Patient Education

A graduate project submitted in partial
satisfaction of the requirements for the
degree of Master of Public Health in

Community Health Education

by

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ABSTRACT

HEALTH EDUCATION IN A CLINICAL SETTING:

A Pilot Study in Myocardial Infarction
Patient Education

by

Robert M. Huff

Master of Public Health in Community
Health Education

May, 1974

Heart disease is the number one killer in the
United States today. Death from "heart attack" (Myo-
cardial Infarction) in 1971 was 675,580 persons (Ameri-
can Heart Association, 1974).

The primary focus of this project is not to
reduce the incidence of myocardial infarctions within
the total population, but rather to provide a service
to those already subjected to the consequences of heart
disease and heart attack.

At the present time there are few hospitals
which are doing anything about helping M.I. patients
return to normal life patterns again following an acute
myocardial infarction. In recent years there has been
a shift in concern about providing total patient care,
from providing routine patient care and treatment to patient care, treatment, education, and rehabilitation. This concern is expressed by this project, in that it focuses closely on education and rehabilitation of M.I. patients and the problems that can be encountered in planning and implementing such a program.

The methodology used to design this program centered around the development of a teaching guide which would adequately meet the needs of the M.I. patient. This teaching guide provides information about the disease, treatment schedules, life style modifications, and community resources that are available to help the recuperating M.I. patient live more successfully with his condition.

An integral part of the development of this program was the creation of a nurse teaching team who would work closely with the patient to provide essential nursing care, as well as education and rehabilitation. At the time of this writing this program has not been implemented, pending training of the primary nurse teaching teams. It is expected to be implemented within the next month.
CHAPTER I
INTRODUCTION

Heart disease is the number one killer in America today. Latest estimates by the American Heart Association indicate that over 27 million persons in the United States alone are affected with some form of cardiovascular disease. In 1971, an estimated 1,021,630 persons died from heart and blood vessel diseases. Of this total, 675,580 persons died from heart attack (Myocardial Infarction) (American Heart Association, 1974). More than half of these fatal Myocardial Infarctions occurred outside of hospitals, and approximately 25 percent of all patients admitted to hospitals with a diagnosis of "Acute Myocardial Infarction" die during their period of hospitalization (Wolf, 1972). Those that survive require a hospital stay of from 7-30 days followed by a convalescence period of 3-6 months on the average, either at home or at Extended Care facilities (Harris Personal Communication, 1973). It becomes painfully clear that something must be done to reduce the incidence of heart disease, and more specifically, heart attack. The American Heart Association, through an extensive educational program, is attempting to make the general population more aware of the heart disease problem, but what of those who have
already suffered a heart attack?

Patient Education Needs

It seems to be a common misconception that persons who have suffered an M.I. know what caused it, and what they must do to prevent a re-occurrence of M.I. From this author's experience, there are a great many post M.I.'s who have very little knowledge about the causative factors of Myocardial Infarction or how to cope with the long period of convalescence, special diets and other lifestyle modifications important to the healing of the heart muscle following Myocardial Infarction. There are an increasing number of hospitals providing formal patient education programs to heart attack patients, but there are a great many more that do not, or that provide only a minimal explanation of what the patient can expect once he leaves the hospital. It is the goal of this program to help the recovering M.I. patient become more aware of the etiology and implications of Myocardial Infarction, and to provide him with suggested alternative lifestyle modifications for the purpose of helping him to recover from his heart attack and return to a normal life again.

There are a number of factors which have been linked to heart disease. These include genetic predisposition, living habits, injury and infection (American Heart Association, 1974). This project is concerned
primarily with living habits as they relate to M.I., such as improper diet, lack of adequate exercise, use of tobacco products and stress. It is not entirely clear just how these factors interrelate in the causation of Myocardial Infarction, but generally can be seen to lead to the following conditions within the body:

1. Improper diet - can lead to obesity, hypertension, arteriosclerosis and atherosclerosis of the coronary arteries.
2. Lack of adequate exercise - can lead to reduced muscle tone of the heart and blood vessels.
3. Use of tobacco products - can lead to constriction of the small vessels of the fingers and toes, and may over time involve the larger blood vessels throughout the body.
4. Stress - generally leads to stress reactions within the body, such as increased heart rate, heart rhythm and respiration. Generally these stress reactions are unnecessary or unused and may lead to damage to the cardiovascular system.

This by no means covers all of the factors which can precipitate an M.I., but is only intended to illustrate some of the factors directly related to average living habits within the general population. In the presence of these and other conditions which may be present in the body and M.I. can occur, and, if so, generally occurs in
the following ways:

1. A blood clot (embolus) forms in a narrowed coronary artery, blocking off the supply of oxygen and other vital nutrients to the heart muscle, causing starvation and death of the heart muscle.

2. A wandering blood clot may travel through the circulatory system until it reaches a narrowed coronary artery, where it lodges to form a dam, blocking off the supply of oxygen and other vital nutrients to the heart muscle.

3. A sudden exertion or excitement requiring extra oxygen, which the narrowed but unclogged coronary arteries can not handle, and which may lead to serious or fatal disruption of heart rhythm.

When the heart fails to receive its supply of oxygen and other vital nutrients, due to an inadequate circulatory system, a warning signal often develops called "Angina Pectoris." This condition is indicated by sensations of tightness in the chest and pressure or pain behind the sternum, sometimes radiating to the shoulder, arm, hand, neck or back. When Angina strikes, physical demands on the heart must be reduced. Medication can sometimes ease these demands by expanding blood vessels and increasing blood flow, but in the true M.I. this pain is
usually persistent and unrelieved by either medication or rest. It is at this point that time is critical to survival, and hospitalization generally occurs.

It is not the purpose of this project to function at the primary level of prevention, though this will occur indirectly through family teaching and counseling during the course of the patient's program. This program functions at the tertiary level of prevention through education and rehabilitation of the post Myocardial Infarction patient. This program was developed under the direction of the Director of Nurses, Supervisor of the Cardiac Care Unit and the Director of In-Service Education at Granada Hills Community Hospital. It was their belief that there was a need at the hospital to better acquaint post Myocardial Infarction patients with why their M.I. occurred, and what they can do to more quickly recover from it and return to a normal life again. This belief was verified by hospital record checks for chronic hospital re-admissions, and by survey questionnaires given to the general population. Subsequent to the inception of this program, teaching was done on a very informal basis with M.I. patients during their stay in the Cardiac Care Unit (C.C.U.). Very little teaching was done during the patients stay on the Medical Floor, and was haphazard at best.
Statement of the Problem

1. To develop a formal Inpatient Education Program for Myocardial Infarction patients at Granada Hills Community Hospital.

2. To develop a "teaching guide" containing specific information concerning the causative agents of M.I., and suggested topics for discussion with the patient in regards to suggested life style modifications for recovery and rehabilitation of the M.I. patient.

3. To develop a nurse teaching team, for the purpose of implementing the program and disseminating information to the recovering M.I. patient.

4. To develop appropriate evaluative tools to measure the effectiveness of the program.

The following chapters will discuss relevant writings in the area of heart disease teaching programs and the methodology used to develop this particular program.
CHAPTER II
LITERATURE REVIEW

In the past ten years there has been a greater concern and focus on health education for hospital patients. This concern has not only been with medical professionals but with the U.S. Government. As far back as 1964 the U.S. Government created an "Advisory Committee on Health Education and Communication" for the purpose of advising the Public Health Service on how to improve and intensify programs to facilitate fuller use of available knowledge (Shapiro, 1972). Out of this committee came a report entitled "Education for Health" (Public Health Service, 1966) which made 13 recommendations, three of which are of relevance here.

1. The skills and knowledge of health education specialists should be employed at every appropriate stage of program planning and policy development throughout the public health services.

2. The Public Health Service should support demonstration projects which improve the use of educational science and technology in health programs for both the professions and the public.
3. The Public Health Service should create a formal mechanism to assure that research findings generated by its behavioral science program be incorporated into operating policy by the programs concerned (Shapiro, 1972).

Another report by the Secretary of HEW in 1969 discussed the possibilities of coverage under Medicare of the cost of comprehensive health screening devices and preventive services for the early detection and prevention of diseases in old age, and the feasibility of instituting and conducting informal educational programs to reduce illness among Medicare beneficiaries. Still another report made by the "Advisory Committee on Health Education" and included with the HEW report to Congress called for amendment to the conditions for participation in Medicare, and would require that hospitals, extended care facilities and home health agencies include on their staffs, qualified educational specialists to help assure that educational components of their services be adequately developed (Shapiro, 1972).

Report to the APHA

Since 1964, there have been a number of other reports and papers which essentially discuss the same topics covered above, but perhaps the most germane of all of these reports and papers was one presented to the
American Academy of Health Administration, the Community Health Planning, Health Officers, and Public Health Education Sections of the American Public Health Association at the Ninety-Eighth Annual Meeting in Houston, Texas in 1970. The paper was presented by Dr. Scott K. Simonds, and in the paper he suggested that an ethos as consisting of six points of development in a value system centering on the patient:

1. He shall be respected and cared for as a human being.
2. He shall be recognized as having unique socio-psychological, cultural, and familial background relevant to his condition and to communication with him concerning his condition.
3. He shall have access to and the opportunity to obtain the information and guidance that he sees as needed to care for his condition and shall have the support for helping him use the information obtained.
4. He shall be provided an active and participatory role in his own care to the extent that he chooses and is able.
5. He shall be stimulated and guided through effective educational means to acquire new knowledge, attitudes, and actions that will promote his ability to care for himself more adequately and to maintain his health at an optimum level; and
6. He shall be cared for through services designed and organized to promote and support learnings and behavior that are appropriate to his care and to the maintenance of his health (Shapiro, 1972).

Strategies for Patient Education

During this same ten year period a concern for patient education programs was also being voiced by segments of the medical profession. Most notably this
concern was coming from professional nurses, and was being voiced through articles in professional nursing journals. Most of these articles dealt with the fears and frustrations of the acutely ill patient, and called for measures to help the acutely ill patient cope with his fears and frustrations through education and rehabilitation (Mullen, 1973; Hahn and Dolan, 1970; and Kos, 1969). Many of these articles deal with strategies for patient education, the most notable of these being patient "assessment." This implies that through observation of the patient's physical and mental condition appropriate methods can be devised to intervene and treat the patient's physiological and mental conditions. Assessment also implies that such intervention will be individually tailored to meet specific patient needs and demands (Haferkorn, 1971 and Huang, 1971). Another strategy which ties in with patient assessment is long term rehabilitation of the patient with a chronic disease. Rehabilitation in this sense means providing the patient with information and services to help him live more successfully with his condition once he leaves the hospital. All too often in the past, this kind of rehabilitation was not provided and the patient was sent home with the meaningless advice "take it easy." The time has come for more definitive advice and action to be taken in the area of total patient care through education and
rehabilitation (Kos, 1969).

**Current Patient Education Programs**

Within the past ten years there have been a number of patient education programs, but very few of these have been published. The most notable of these early patient education programs was one conducted at St. Peter's General Hospital, New Brunswick, New Jersey in 1964. This program was conducted in an outpatient setting, and was centered around a target group of 50 congestive heart failure patients. A control group of patients from surrounding hospitals was used to evaluate the program. The program consisted of structured interviews with the target group to determine levels of knowledge about congestive heart failure, and to gather demographic data. Physical examinations were conducted routinely by physicians, and home visitation services were conducted periodically by a social worker and public health nurse. A team approach was used to implement the program and teaching was conducted during the patient's outpatient visits to the clinic and during home visits when possible. Team conferences were routinely conducted and specific courses of action were planned for each individual patient participating in the program. In essence the program demonstrated that education for the 50 congestive heart failure patients increased their level of knowledge about congestive heart failure and its
treatment, and fostered an interest in the patient to adhere to the suggested treatment schedules. It was also noted that when the experimental group was compared to the control group, there was a significant decrease in the number of re-admissions and re-admission days for the experimental group (Rosenberg, 1971).

A recent publication by the Memorial Hospital Medical Center of Long Beach entitled Modern Medicine and Your Heart, has gone a long way to answer questions and present the latest innovations in heart disease treatment and rehabilitation. This publication was designed for the layman and includes such things as diagnostic methods, treatments, surgical techniques and case histories which will help the potential and real heart patient gain a better understanding of heart disease and what can be done to alleviate the condition. In addition to the above publication the hospital has a number of programs, two of which are briefly discussed below (both of these programs are unpublished. The author learned about them through personal communications.) The first program is a "Comprehensive Stroke Program," which was designed to rehabilitate the stroke victim and return him to as normal a life as possible, and was funded by the Long Beach Heart Association. The program is divided into three parts, Phase I, Phase II and Phase III to facilitate the physician's prescription according to the
patient's medical condition and activity tolerance. A registered nurse who is assigned to the Department of Rehabilitation coordinates the program. The three phases contain specific nursing care measures, education, therapy and outpatient follow-up based on individual patient needs. The second program is an "Alcoholic Rehabilitation" program which utilizes a team approach. The program consists of treatment, through medication, communication and supervision, education and group therapy and rehabilitation (Taue, personal communication, 1973).

The next programs discussed are also unpublished, but because of their relevance to this paper will be included here. The first two programs are currently in progress at Northridge Community Hospital, Northridge, California. The first is a "stroke" program which essentially parallels the program at Long Beach Hospital and is under the direction of a registered nurse in the Department of Rehabilitation (Burke, personal communication, 1973). The second program is an outpatient "Diabetes" program, which strives to educate the already diagnosed diabetic patient about his disease and what he must do to live more successfully with it. A booklet has been prepared by the hospital which outlines the program and contains the educational material used for the program. The program accepts referral patients and has been moderately successful. At the present time an
An inpatient program is being planned, which will supplement the already existing outpatient program (Schapper, personal communication, 1974). The last program is the "Pediatric Diabetes Program" currently underway at Granada Hills Community Hospital. Because it is occurring at the same hospital as the program discussed in this paper, it will be discussed more at length than the previous programs. The diabetes program at Granada Hills Community Hospital was designed by the Supervisor of Pediatrics to specifically meet the needs of the diabetic children and their families while they are patients in the hospital. The program utilizes a programmed text, reinforced by one-to-one communication between the nursing staff, patient and family. An integral part of the program consists of practical learning experiences with insulin injection and urine testing. Instruction is given around the clock and the teaching is done by all of the nurses assigned to the Pediatric Department. Evaluation is carried out through pre and post testing, observation of practical skills and follow-up, once the patient has left the hospital. The program has been very successful in terms of decreased hospital re-admissions and total re-admission days, and has gained wide support from the entire medical staff (Pazorsky, personal communication, 1973).

It becomes clear that the concern for better
patient care through education and rehabilitation is becoming more widespread, with new programs being planned and implemented yearly. In my opinion the area of hospital health education opens up a new horizon for health educators, and with the advent of some form of reimbursement to hospitals for health education, will make the concept of "total patient care" a reality. In the next chapter, I will discuss the methodology and problems I used and encountered to design my program.
CHAPTER III

METHODOLOGY

The author's initial idea for this project stemmed from a series of visits to a hospital in Thousand Oaks, where a family member was recuperating from open heart surgery. It was hospital policy for all open heart patients to receive formal education in regards to the surgical procedure, post surgical convalescence and lifestyle modifications necessary to the proper healing of the heart muscle following the surgical procedure. The educational format involved one-to-one communication between the patient and the medical staff, handout literature and visitation services pre and post operative by the Mended Hearts, a group of persons who have already been through the surgery and whose primary function is to help the pre and post surgical patient to better cope with adjustments that will be necessary (in terms of lifestyle modifications), in order for the patient to live successfully with his condition. The author was very impressed with this form of patient care as he had, from past experience, never seen a formal patient education program in a clinical setting. It was apparent that this type of patient care was going a long way to meet patient needs both in and out of the hospital. All to often a
patient is treated only for the physiological condition that has brought him to the hospital, and then sent home with very little information as to why the condition or illness occurred, and what they can do to prevent a re-occurrence of this same illness or condition. With this new found awareness of a virtually untouched area for health education, the author decided to explore the potential of a health education program for a graduate project.

Introduction to Hospital-Planning Sessions

The first step in what was to become a graduate project involving education of Myocardial Infarction patients was to contact a hospital for the purpose of ascertaining if they would be interested in a patient education program. The first hospital called was Granada Hills Community Hospital, which is an acute-general, non-profit hospital, with a bed capacity of 201, and which is controlled by a Board of Directors. Through a series of calls, the author was finally able to talk to the in-service director, Mrs. S., who was very interested in a patient education program for her hospital. She set up a meeting, which would include the director of nurses, Mrs. G., for the purpose of discussing the feasibility of designing and implementing a patient education program. On May 10, 1973 this meeting was held. Both Mrs. S. and Mrs. G. were in favor of a program, and it was decided
that a meeting should occur with the Hospital Administrator, Mr. G., for the purpose of gaining his approval for such a project.

On May 30, 1973 the meeting with Mr. G. occurred, and the project was discussed. Time and cost factors were considered, and the following decisions were reached:

1. The hospital would cover the cost of paper and printing for the program.

2. The nursing staff would assume the responsibility for supervising the design and implementation of the program, as a part of their routine duties, and would act as the primary teachers for the program, because of their close association with the patient while he is in the hospital.

3. The target group, open heart surgery patients, would be changed to acute myocardial infarction patients, as the primary surgeon on the open heart team had tendered his resignation.

4. A meeting would be scheduled with Dr. Z., who is the key physician in coronary care, to discuss the feasibility of a program for myocardial infarction patients at the hospital.

Following this meeting, a series of planning sessions were set up involving Mrs. S., Mrs. G. and the author to
set the course of action for the program and to design the program objectives. A meeting was set up with Dr. Z., in which the author would present a general format for the program and attempt to gain his cooperation in the planning and implementation of the program.

On June 27, 1973 the author met with Dr. Z. During the course of the meeting the author became aware of a blocking effort on the part of Dr. Z., to forget the whole idea, but through persistence was able to gain tentative approval to design the program. At the next planning session the meeting with Dr. Z. was discussed, and the author learned that Dr. Z. was extremely conservative, and had on a number of occasions blocked other efforts to gain improvements in hospital policy and patient care, preferring to maintain the "status quo." During this meeting it was decided to circumvent the medical staff, by calling the project a nursing program and involving the physicians as little as possible until the program was perfected and ready for implementation. (At the present time this philosophy has lead to complete blockage of the program by the medical staff. It is hoped, however, that this blockage will be overcome in the near future.) By the end of this meeting, it had been decided that the author would write up the formal outline of program objectives and the action steps that would be used to implement the program.
During the time span between this meeting and the next one, scheduled for July 3, 1973, the author visited and called several hospitals for the purpose of finding out if patient education programs were being conducted at them, and, if so, how they functioned and what their goals were. During this time the program objectives and action steps were designed.

On July 3, 1973, the next planning session was held and the program format was distributed, which contained the objectives, action steps and evaluation tools that would be used to implement the program. The next planning session was scheduled for July 24, 1973, at which time the formalized program would be discussed. During the intervening time, the author contacted several community organizations, for the purpose of assessing their services, orienting them to our program needs, and soliciting their cooperation as a community resource that could provide services to M.I.'s coming out of the program at Granada Hills Community Hospital.

The two organizations contacted were the American Heart Association and the Mended Hearts. It was learned that the American Heart Association could provide literature, and call in dietitian services to heart disease patients for the purpose of providing them with sample meal plans, and information as to where the patient can shop, to buy special foods that may be required for any
special diet he may be on. They also sponsored a "Heart Fair" annually, which presents lectures and information about nutrition to heart disease patients and interested persons within the general population. Subsequent to this contact, many of the services of the American Heart Association were used to form the foundation for the educational program at Granada Hills Hospital. The Mended Hearts offered a social organization which M.I.'s could join, and they further offered educational sessions designed to aid heart disease victims in coping with and understanding the life style modifications necessary for their return to normal life again. This group was also included as a community resource in the Granada Hills Hospital program.

Program Problems

On July 24, 1973, the next planning session was held with Mrs. S. and Mrs. G., for the purpose of discussing the proposed program. On the basis of the following points the original set of objectives were rejected:

1. The nursing staff were not specifically pointed out as the sponsors of the program.

2. The project, as outlined, did not specify who would act as the primary instructors of the program.
3. Prior to implementation, the program would require physician approval. Since this program was to be considered a nursing project it was felt that physician involvement on anything but a minimal basis, would hinder or destroy the program. It was made clear that in order for physician approval to be acquired, the program would have to clear through the Medical Committee, and since past records indicated that physician consensus was rare on this committee, it was felt that the program would be blocked.

4. As an integral part of the program, "nursing assessment" needed to be included for the purpose of establishing individual patient needs. As this author was unfamiliar with the concept of "nursing assessment," it was explained before the close of the meeting. In general terms, nursing assessment means that a patient's physiological, mental and emotional well being are to be evaluated by the nurses most closely associated with the patient. Under normal conditions this assessment is an on-going process throughout the patient's stay in the Hospital. The primary function of nursing assessment is to aid the Medical staff in planning the proper treatment and rehabilitative intervention that will
most closely meet the individual patient's needs.

5. The evaluation devised, which was primarily based on pre and post testing, would not be allowed, as it was felt that it would not only block patient learning, but would be too difficult for the patient in acute M.I. to fill out. It was suggested that an alternate form of evaluation be devised.

At the completion of the meeting, the author was informed that both Mrs. S. and Mrs. G. would be leaving on vacation and would not be back until the middle of August. Instructions were given to revise the program objectives and bring them in for approval in late August. Following this session the author began to re-define his role within the hospital, and with this came the realization that the planning committee he was working on was not moving in the direction he hoped for and at the pace he felt was necessary to maintain his interest or the interest of those he was working with. This was the first point at which the author considered dropping the entire project. A decision was made, however, to give the project one more month, in the hopes that something would happen to get the project moving in a more orderly direction.

On August 17, 1973, the author met with Mrs. G. to present her with the revised program objectives (see
Appendix A). Mrs. G. approved the objectives and suggested a meeting with Mrs. H., Supervisor of the Coronary Care Unit, for the purpose of gaining input into the needs of M.I. patients in regards to what they need to know before leaving the hospital. The evaluation section of the revised program was left open, and another meeting was scheduled with the Psychiatric Nurse Coordinator, Mrs. F., who might be able to help with this evaluative problem. Subsequently, this meeting with Mrs. F. occurred, and in several weeks we devised a "follow-up" questionnaire which could be sent to the patient after his discharge from the hospital. The questionnaire was designed to elicit patient responses to improving the program. At the same time a "behavioral checklist" was designed which would allow us to record changes in patient behavior as the teaching program progressed. These evaluative measures still did not meet the needs of the author for objective methods of evaluating the program, and it was decided that a meeting with his graduate advisor was imperative.

Patient Education Proposal

On August 18, 1973 the author met with Mrs. H. to explain the program and to ask for her help in designing the educational component. Mrs. H. was very enthusiastic about the program, and explained that she had been trying
to institute a similar program for quite some time. It was decided that we would meet every week until the program was completed, and that she would play an integral role in its implementation. During this first meeting, it was decided that the following steps would be taken to complete the educational component of the program:

1. Design an admissions brochure, explaining the program and discussing hospital procedure, that could be given to all patients and their families at the time they are admitted to the hospital. This task was given to one of the C.C.U. nurses, and has been completed. It was not, however, made a part of this program, as it did not directly relate to the educational goals of the program.

2. Design an outline, specifying the subject areas to be taught, but not to include specific statements about any particular topic. It was felt that the nursing staff was sufficiently aware of heart disease problems that they could teach adequately in the subject areas specified.

3. Another attempt would be made to gain the approval from Mrs. G., to at the very minimum, administer a post test to the subjects participating in the program.

4. Review prominent medical journals for the
purpose of finding articles relevant to M.I. education and rehabilitation.

At this point the author was convinced that a turning point had come, and that the program would finally get underway.

In the weeks that followed, the author met regularly with Mrs. H. The educational objectives of the program were revised and improved, educational literature was reviewed, and specific subject areas were decided upon. Occasional meetings with Mrs. G. were scheduled to present progress reports and to receive input into the educational design. Approval was given to post test the experimental group, but pretesting was still over ruled. During this time, the author met with his graduate advisor to discuss the progress of the project, and to try and work out a solution to the evaluation problem. Over a two month period, a number of evaluative tools were discussed, but it was not until December that a satisfactory solution was arrived at. This will be discussed later in this chapter.

Between August and November, work continued on the project with the following results:

1. Heart Disease literature was selected from the American Heart Association, to be used as hand-out materials to supplement the teaching sessions.
2. Families of M.I. patients would be educated along with the patient, in the hope that they would reinforce the teaching that was done, and that indirectly this teaching would have some effect on family members who might someday be candidates for heart disease.

3. A multiple choice questionnaire was designed for post testing purposes.

4. Articles from prominent nursing journals were reviewed, with the aim of utilizing those articles which dealt specifically with rehabilitation of M.I.'s in the educational program.

5. Contact was established with the Social Services Department, for the purpose of orienting them to our program, and ascertaining if their services could be used in our program. Their department is primarily concerned with Medicare patients, who may need the services of a social worker, but on occasion they do make social worker referrals to non-Medicare patients.

6. The educational component of the program was completed and discussions in regards to how implementation would occur and when it would occur were begun.

With the program nearly completed, the author became
increasingly concerned with the possibility that the program would be blocked, because of the lack of physician involvement in the planning and implementation of the program. This may have been responsible for the incident which occurred on October 26, 1973.

**Group Encounter Sessions**

The author had on a number of occasions voiced his concern in regards to the lack of physician involvement. On October 26, an impromptu meeting was held, involving Mrs. S., Mrs. G., Mrs. H., Mrs. F. and the author. The major subject of this meeting seemed to be the author's motives and concerns for designing the program, and most importantly his concern about physician involvement. The educational component of the program was critically examined, and partially approved. The evaluation questionnaire for post testing the experimental group was rejected on the basis that it was too tough for the M.I. patients. A sort of chastisement from all of the participants at the meeting was directed at the author, because of his concern for the physician involvement. It was made perfectly clear that physician involvement would continue to remain minimal, until such time as their approval was absolutely necessary. The meeting was ended on the note that it would continue on November 2, 1973.
On November 2, 1973 another meeting was held to complete the discussions started on October 26. At this time the author had decided to spell out as completely as possible, his desires, motivations and concerns about the program, in the hope that it would satisfy the other participants questions and desires as they related to the proposed program. This was the second point at which the author considered abandoning the project. The meeting progressed in the manner that the author had hoped for and it was decided to continue with the proposed program, but with the addition of one item. It was decided that a teaching guide would need to be designed for the purpose of providing the teaching nurses with a formalized, structured teaching manual and resource guide. It was noted that many of the nurses on the medical floor were not adequately informed with regards to the life style modifications, disease etiology, and rehabilitative processes related to myocardial infarction. During the meeting it was decided that the author would continue to work with Mrs. H. for the purpose of developing the teaching guide, and that we would meet once a week until the guide was completed.

Patient Teaching Guide

From November 1973 through January 1974, regular weekly meetings were held, for the purpose of designing a
teaching guide. The teaching guide was broken down into ten teaching blocks, five to be taught in C.C.U. and five on the medical floor. Mrs. H. was responsible for designing the information blocks to be taught in C.C.U. and the author would design the information blocks for the medical floor. The purpose of the meetings was to discuss the developing blocks, and brainstorm ideas to be included in the teaching blocks, as well as to keep up-dated as to the progress each one was making on the teaching guide. By January 1974, the teaching guide was completed, and it contained the following elements:

1. General orientation to the physical setting of the C.C.U., and the kinds of procedures, treatments and limitations that would be imposed on the patient while he is recovering from his M.I., and a rational for why these things are happening.

2. General orientation to the physical setting of the medical floor, including special procedures, treatments and increased activity levels to be imposed on the patient, and rationals for each.

3. General discussions in regards to the etiology and implications of myocardial infarction, and suggested life style modifications to guard against possible future myocardial infarctions.

4. General discussions in regards to community
resources available to the M.I. to help assist him in maintaining a successful rehabilitation and adjustment to his new condition.

5. Family teaching and counseling for the purpose of informing the family of the M.I. as to what the recovering M.I. will be taught, and to motivate the family to assist and help the recovering M.I. to cope with and adjust to his new condition, both in and out of the hospital.

6. A bibliography of suggested readings to better inform the teaching nurses about M.I., and the suggested rehabilitative procedures used to help an M.I. patient successfully adjust to his new lifestyle (see Appendix B).

7. Handout materials to supplement lecture sessions.

This teaching guide was based on the following considerations:

1. What the nursing staff felt were important teaching areas based upon the most frequently asked questions by M.I. patients.

2. What the author felt were important teaching areas, in terms of disease etiology, life style modifications and community resources.

3. What current medical journals were saying about
myocardial infarction rehabilitation.

During the time period that the teaching guide was being formalized, serious consideration was being given to the evaluative tools that would be used in the program. As was mentioned earlier, only a post test would be allowed for the purpose of measuring the patients' level of knowledge at the completion of the program. After numerous consultations with the nursing staff, graduate advisors and fellow graduate students it was decided to create a control group of persons who had been M.I. patients at the hospital within the past year, but who had not participated in an educational program. It was recognized that this control group could have acquired a great deal of information about heart disease since their discharge, but it was hoped that the questionnaire designed for the program would be sufficiently comprehensive and specific to the program, that it would eliminate most of this outside information. It was decided that a medical records search would be carried out for the purpose of compiling a list of post M.I.'s who had been in the hospital within the past year. One hundred of these patients would be selected randomly and sent a letter of introduction and a questionnaire to fill out and return to the hospital. On the day before the search was to begin an incident occurred, which was to
alter this evaluational approach.

An Unfortunate Incident

This incident involved several students from the Health Science Department of California State University, Northridge. As part of a class assignment, these students were to photograph a number of patients in a bed-rest situation within a hospital setting. Prior to photographing these patients, the students secured written permissions from the patients involved, but they failed to secure permission from the attending physicians whose patients were involved. What resulted was a total fiasco. The attending physicians revoked the written permission forms signed by the involved patients and demanded a policy statement by the hospital administrative department in regards to outside intrusion into the hospital by anyone without the approval of the attending physician. Administration in essence stated that no one could enter the hospital for the purpose of photographing, testing or working with a patient without prior physician approval. The effect this had on my control group evaluation was that it required the author to secure the permission of each physician that had a patient(s) designated as a part of the control group. Following this incident, it was decided that a formal letter would be written to each physician involved with the control group.
and sent to him along with a copy of the questionnaire that would be used to test the control group. A letter was drafted, research in medical records completed and plans made to send out the permission forms. Upon careful consideration by the author and in consultation with the nursing staff this permission procedure was scraped, for the following reasons:

1. The letter would not be opened by the physician, but by his secretary. This could result in the letter never reaching the physician or being delayed by the secretary because of its relative unimportance to the secretary.

2. The letter might reach the physician, but lay on his desk for an undetermined length of time, because the physician would not have time to fill out the permission form.

3. Based on past performance, the chances were very good that at least 50 percent of the physicians would not give their permission.

An alternate plan for control group testing was then put into action. This involved selecting a private physicians office, and sampling a group of non-heart patients. The rational was that non-heart patients would have about the same level of knowledge as the general population in regards to heart disease. Contact was made with the Holvey Medical Group in Panorama City, California
and permission was secured to test a small group of their non-heart patients (18).

The Control Group

Subsequent to securing permission, a random sampling of non-heart patients was carried out and evaluated. The results of this sample will be discussed in Chapter IV. During a seminar at C.S.U.N., a discussion of this control group sampling took place. The author was made aware of the possible intervening variables that could affect his sample. The major factor discussed was the possibility that the control group might be more informed about heart disease because of their relatively frequent visits to their physician, indicating a concern for their general well being. It was suggested that other samples be taken, involving heart patients at the same physicians office and in the general public, in order to ascertain whether there are intervening variables between the control groups. At the time of this writing, none of these samples have been taken. Sampling of these suggested control groups will occur within the next three months, and will be published as a part of the overall program evaluation within the next year. As a part of the overall evaluation of the program, a follow-up survey was designed for the purpose of gaining input into the program, from patients who participated in the program. A
behavioral checklist will be used to evaluate behavior modifications while the patient is in the hospital; and hospital record checks will occur yearly to determine if patient repeater tendencies are occurring (see Appendix C).

As a part of the overall program several checklists will be employed. The first of these is an instruction checklist, which will be kept in the patient's chart and will note where the patient is in terms of the overall teaching program. The second checklist is a discharge instruction form, which will be used to list any special instructions the physician wishes the patient to follow while he is at home and before his first post hospital doctors visit (see Appendix D).

Program Implementation

With the completion of the written program, the next step was to decide how to implement the program. It was decided that the program would be implemented in February 1974, and that a series of staff training sessions would be scheduled to orient the nurse teaching personnel. Before these sessions could be scheduled it would be necessary to get final approval of the completed program from the Director of Nurses, Director of In-Service Training and other interested or involved parties. It was not until the end of February that final approval was
granted to implement the program. Following this approval, three training sessions were scheduled for early March, which would involve approximately 60 teaching nurses. Prior to these sessions the program had to be copied for the purpose of providing each of the teaching nurses with their own personal copy of the program. The rationale for this was that in order for a minimum amount of time to be spent in the training sessions each nurse should be at least partially familiar with the program. The week before the training sessions were begun, 60 copies of the program were made and disseminated to the nursing staff. Along with the teaching guides, supplemental handout materials to be used in the program were also passed out. The training sessions were scheduled for Monday, March 25, 1974, and included three one hour sessions, beginning at 7:30 A.M. The first session involved nurses from the night shift, and several from the morning shift (total of eight nurses). The format for each session was an introduction by the author, which covered the goals and purposes of the program and paved the way for a detailed discussion of each of the teaching blocks and handout materials relevant to each block. The discussion of the teaching blocks was carried out by Mrs. H. and Mrs. L., supervisor of the medical floor. Discussion of evaluation and check lists were carried out by the author. After the teaching guide was discussed, an
An open forum occurred, in which questions were asked and answered by the program designers and nurses present. The second session involved 15 nurses, as well as the hospital administrator, Mrs. G., Mrs. S. and Mrs. F. The same format was followed as in the first session, though the open forum lasted somewhat longer in the second session. The third session involved seven nurses and paralleled the first two sessions. The reception given the program by the nursing staff was excellent, and leads the author to believe that the program should be reasonably successful. Implementation of the program at the time of this writing has still not occurred, and is pending the arrival of a patient with "Acute Myocardial Infarction."

Problems Involved in Hospital Health Education

During the time the author was associated with Granada Hills Community Hospital, he became aware of a number of problems inherent in hospital health education. The following problems were the most common encountered by the author during his association with the hospital:

1. **COST** - most small hospitals cannot afford to hire a health educator, nor can they afford to pay the cost of teaching materials and a consultant to put the program together, because of the budget limitations they must work under.
Granada Hills Community Hospital was no exception to this problem. In most cases, unless the hospital receives a grant, any educational programs designed must of necessity come from some internal source. This means that the cost for such a program must come from that internal source. Because that internal source must operate on an extremely limited budget, the chances of a program being designed are minimal.

Granada Hills Hospital backed the MI program because it cost them virtually nothing to design. Implementation costs will be absorbed by the nursing department, and therefore will not hurt the hospital budget.

2. TIME - since most small hospitals are short of money, they cannot afford to hire enough personnel to engage in anything but direct patient care and treatment. In general all hospitals have an In-Service Education Department, whose main job is to keep the hospital staff well informed with the latest innovations in medical care. The staff of this department is generally small, and may include only one or two people. They will not have the time to keep up with their regular duties and at the same time plan patient education programs. Time is also important to the
regular professional staff, who must keep up with the patient load and who do not generally have time to attend planning sessions for new programs, and feel that they don't have time to stop and teach patients individually while keeping up with their regular duties.

3. OUTSIDER SYNDROME - this is probably the most important problem facing a health educator entering a hospital setting. There seems to be an implied threat that the health educator will take power from the physician as well as other professionals within the hospital. Another problem which ties in with this is the feeling that the health educator, not being a medical person (i.e., nurse or physician), will not understand how a hospital works or what the functions are of the various professional and para-professional personnel who work in the hospital. To a limited degree, both of these problems do apply to health educators. Unless the educator has had prior hospital experience or orientation in a classroom setting, he is likely to encounter problems in understanding hospital functioning, but with exposure will become familiar with the hospital and see that it does not differ that greatly from other types of health care
facilities (only the services differ). The threat factor, however, is very real and to a degree true. The health educator will steal some of the power of the physician and other professionals in the hospital, but this is not to say that the health educator is lowering the status of the other professionals in the hospital. The primary function of the educator should be to apply his knowledge of program design and educational techniques to the education of a target group of persons who perhaps need the education or rehabilitative help more than any other segment of the population at any given instant of time. It should also be the educator's goal to assist the physician and other professionals within the hospital, by taking some of the burden of patient teaching and counseling away from them and thereby releasing them to pursue tasks which are more needed or more relevant to them. It was the author's experience that good communication techniques can go a long way to reduce this whole problem of the "outsider syndrome."

4. INTEREST - many physicians as well as other professionals within the hospital feel that they are already doing every thing possible to heal
the patient. They therefore are not able or not interested enough to see the need for patient education as a supplement to good patient care and treatment. This relates to a commonly held belief by medical professionals that a hospital can only provide treatment at the secondary level of prevention, and rehabilitation only to special cases, such as stroke victims, because hospital time and patient loads do not allow the time to pursue anything but direct treatment to the patient. It should be the major goal of the health educator to stimulate an interest in total patient care through education, and rehabilitation if needed, for every patient confined to a hospital.

There are a number of other more minor problems related to hospital health education, but they are similar to problems found in other health agencies and need not be discussed here. In the next chapter, the author will discuss the program evaluation techniques proposed for his program, and the reasons why the program has not been implemented at the time of this writing.
CHAPTER IV

RESULTS

As was discussed in Chapter III, this program has not yet been implemented at Granada Hills Community Hospital. Because the program has not been implemented, it will be difficult to present any findings in this chapter. There are some tentative results, based on a control group sample taken at the Holvey Medical Group, which will be discussed in a later section of this chapter; but as an alternative to actual results the author will discuss the evaluative methods to be used to measure the effectiveness of the program.

Objective Evaluation

The most direct evaluative method to be used in the program is post testing of the experimental group, and three outside of the hospital control groups for the purpose of ascertaining levels of knowledge about Myocardial Infarction within and between these groups. The specific tool to be used is a 25 question "true" and "false" test. While the author recognizes the inherent problems with this type of test, he is forced to use it because of the restrictions placed on the testing by the hospital, and because of the nature of Acute M.I. The author was notified by the Nursing Department, that pre-testing the
experimental group would not be possible because the Acute M.I. is not able to concentrate on anything but his own acute condition at the time of his admission to C.C.U. This also rules out the possibility of a structured interview for the same reason. Post testing was allowed, provided that it did not tax the patient too much. It was for these reasons that the author elected to use a "true" and "false" test.

It was the author's original intention to use only one control group for comparison to the experimental group; but after consultation with his advisor and fellow graduate students he became aware of the possibilities of intervening variables that might be introduced with this particular methodology. Since the control group was made up of non-heart patients who attend the Holvey Medical Group routinely it was felt that this group might be more knowledgeable about heart disease simply because of their apparent concern for their own good health. As a result, two other control groups will be introduced into the study. They will consist of heart disease patients attending the Holvey Medical Group and a sample from the general population not associated with Holvey. The purpose here is to see if there is a difference between the groups at Holvey and the sample from the general population. It is hoped that through this methodology a more normal level of knowledge will be established for the
overall sample population.

The Control Group

At the present time only one of these control groups has been sampled. This group is made up of non-heart patients attending the Holvey Medical Group on a regular basis. The following information has been delineated for this group: the test administered to the control group consisted of 25 true/false questions, worth a total of 100 points (each question being worth four points). The total number of participants in the control group was 18, consisting of six males and 12 females. The mean age of the group was 52-7 years. The average (mean) score for this group was 78.8 points out of a possible 100, with a range of scores from 44 points to 96 points, no one in this group scored a perfect 100 points. There were three major areas of the test that were missed by this group, and they were:

1. Information about the circulatory system.
2. Specific information concerning the definition and disease process of myocardial infarction.
3. Life style modifications as they relate to "back to work" situations and resumption of normal sexual activity.

Overall, the group demonstrated a lack of knowledge in the areas of nutrition, monitoring in C.C.U., treatment
schedules, anatomy and physiology and life style modifications. It must be concluded from this sample, even though the mean score was high, that there is still a gap in the level of knowledge about Myocardial Infarction within this group. It must be noted, however, that such a gap in knowledge probably results from a lack of exposure to this particular disease process. Further results will have to await the completion of the rest of the control group testing.

Record Checks and Checklists

To supplement the post test evaluations, a number of other evaluative tools have been proposed. The first of these calls for hospital Medical Record checks for the purpose of determining if repeater tendencies are occurring within the experimental population. If there are repeater tendencies within this group, an analysis of this problem will be necessary to determine if this is occurring because of program deficiencies or because of uncontrollable factors related to the disease process itself. Should these tendencies be occurring because of program deficiencies than steps will have to be taken to modify the program to correct these deficiencies.

A behavioral checklist has been designed to gage behavior modifications which may occur while the patient is in the hospital; and while he is participating in the
program. It must be noted, however, that this is only a subjective evaluation and may be of little use in terms of overall program evaluation. The concern with this evaluative tool, in terms of this program, is that the patient will become aware of our expectations or desires for him to modify his behavior. With this possibility, also comes the possibility that the patient will modify his behavior while in the hospital to please his instructor, but once out of the hospital resume his old lifestyle again.

The last evaluative tool to be used in the program is a "Follow-Up" survey, which is to be mailed to the patient two weeks after discharge from the hospital. The original plan was to go to the patient's home two weeks after discharge and interview him and his family, for the purpose of assessing his progress since discharge from the hospital, but because of the lack of personnel to carry out this task, it was decided to mail the survey. The survey has been designed to elicit responses not only to patient progress, but to his feelings about the health education program he participated in. It is hoped that through this survey valuable information can be received, which will allow the hospital to re-assess the program and make modifications to improve it.

It is this author's belief that this program will prove to be effective for the education of myocardial
infarction patients at Granada Hills Community Hospital.
Just how effective this program will or can be will have
to wait for more evaluative data to be gathered.
CHAPTER V

SUMMARY

Needs and Demands in Patient Education

Health education in a hospital setting is a needed and desirable element in terms of total patient care. There are too many hospitals in the United States today which concern themselves only with direct patient care and treatment for a physiological abnormality, often overlooking the patient's mental and emotional needs. This has been especially true for Myocardial Infarction patients, who are subjected to intense and often rigorous treatment schedules, followed by long periods of convalescence both in and out of the hospital. Frequently this extended convalescence is accompanied by moderate to severe life style modifications, such as dietary changes, smoking cessation, limited exercise schedules and back to work restrictions, which instead of reducing anxiety levels within the patient to promote healing of the heart muscle, actually increase these anxiety levels and retard healing of the heart muscle. This is further complicated when the patient remains uninformed as to the reasons why limitations and restrictions have been placed upon him.

There have been in the past, and still are a number of patient education programs being conducted
within hospital confines. These stem from a concern by medical professionals, para-professionals and lay persons to upgrade patient care within hospital settings. This program is one such effort. The major premise for which this program was based, was on the theory that through a comprehensive patient education program, recuperating Myocardial Infarction patients could be given the opportunity to become more aware of the disease condition afflicting them and why certain life style modifications are imposed on them, and that through this education adjust more readily to their new found circumstances.

The major focal point of this program centers around a "teaching guide," which was prepared for the following reasons:

1. To give the total program a form and structure.
2. To provide the teaching team with a needed resource and reference.
3. To provide a systematic approach to patient teaching.

The teaching guide has been designed in such a way as to provide blocks of information to the patient, which can be systematically given to him over the course of his hospital stay. The American Heart Association was utilized as a resource for information, visual aids and handout materials to supplement the teaching guide.
Implications for Hospital Health Education

The development of this program was by no means easy, for there are a number of problems which were encountered during the design of this program, and which on several occasions nearly destroyed the program. The four major problems which are discussed in the text, are as follows:

1. Cost
2. Time
3. Outsider Syndrome
4. Interest

Working within a hospital environment can be a frustrating and disheartening experience, but at the same time can be rewarding and self satisfying.

Evaluation of this program has not been completed, since at the time of this writing the program had not been implemented. The reason for this non-implementation can be attributed to the "time" problem, as the development of a nurse teaching team to implement the program has not been completed. A number of evaluative tools have been designed for this program and can be summarized as follows:

1. Testing of experimental and control groups, to determine levels of knowledge between and within groups.
2. Behavior modification evaluations both in and out of the hospital.
3. Hospital record checks for repeater syndrome.
4. Follow-up surveys to monitor patient progress and adherence to treatment schedules and behavior modifications.

It is expected that this four-way evaluative approach will effectively demonstrate the usefulness of patient education, as a part of the total approach to patient care in hospitals.

It is the author's conclusion, though evaluations of the program have not been completed, that the myocardial infarction patient education program at Granada Hills Community Hospital will prove to be an effective way of dealing with the mental and emotional problems that can arise from an acute illness or disease process, and that patient education can and should be provided to every patient confined to a hospital environment.
APPENDIX A

PROGRAM OBJECTIVES
OVERALL GOAL

To plan, implement and evaluate a discharge planning-inpatient education program for myocardial infarction patients at Granada Hills Community Hospital within one year at a cost of $50.

Control

1. The program has been planned, implemented and evaluated in the time period specified.
2. The budget specified has not been exceeded.

Program Goals

1. To discuss with the Chief of Nursing Service the potential and feasibility of a discharge planning program.
2. To gain the consent and cooperation of the Nursing Service to plan, implement and evaluate a discharge planning program for M.I. patients at the hospital.
3. To gain the consent and cooperation of Administration to plan, implement and evaluate a discharge planning program for M.I. patients at the hospital.
4. To build up the lines of communication throughout the hospital, specifically from the nursing staff to all other professionals in the hospital for the purpose of patient education.
5. To orient the following services as to the purpose of the program and what they can do to help in its
implementation:

a. Nursing Service
e. Radiology

b. Laboratory Service
f. Physical Therapy
c. Food Services
g. Special Services
d. Administration
h. Social Services

6. To contact the Heart Association, Mended Hearts and any other community organizations concerned with M.I. patients, to orient them to our program and to be oriented as to the services they provide.

Controls

1. The Chief of Nursing Service has been contacted by me, and we have discussed the potential and feasibility of a discharge planning program.

2. The Nursing Service has consented to participate in an in-patient education program.

3. The hospital administrator has agreed to the planning, implementation and evaluation of the program.

4. Lines of communication have been built up throughout the hospital for the purpose of patient education.

5. All departments concerned have been oriented towards the program.

6. Pertinent community resources have been contacted for the purpose of mutual orientation.

Action Steps

All of the above goals will be accomplished by myself
with the aid of interested professionals within the hospital through interviews, meetings and phone contacts.

PATIENT ASSESSMENT
The following objectives were designed to ascertain how a patient may feel at the time he enters the hospital, as well as to monitor any changes in these feelings, should they occur during the course of the patient's educational program. Assessment is one of the many duties of the nursing staff, and thus will be an integral part of the program. The purpose of the patient assessment for this program is two fold:

1. To determine if the patient will be a candidate for the program.
2. To identify any specific needs a patient may have, so that the program can be individually tailored to meet these needs.

Patient assessment will be carried out by the nursing staff primarily, and secondarily by other professionals who come in contact with the patient. Patient assessment will be a continuing process throughout a patient's stay at the hospital, and will provide a basis for continued evaluation of the program as it grows and matures.
ASSESSMENT OBJECTIVES

1. To interview the patient at the time of his admission to the hospital to establish how he feels about the following:
   a. Why he feels he is in the hospital
   b. What he knows about his illness
   c. How he feels about being in the hospital
   d. Feelings about the professionals who work in the hospital
   e. What he feels will be done for him while he is in the hospital.

2. To observe the overt behavior of the patient at admission, and throughout his entire stay, for the purpose of recording modifications in his behavior.

3. To discuss with the patient the educational program available to him, for the purpose of assessing positive or negative attitudes toward participating in the program.

Control
Behavioral check list to be kept in the patient's chart, outlining discussions, reactions and attitudes of the patient towards himself, the hospital and the program.

Action Steps
Patient assessment will be carried out by the nurses most closely associated with the patient while he is in C.C.U.
and on the Medical Floor. A record sheet will be provided for the purpose of recording patient behaviors and exchanges of communication between the patient and the hospital staff (see behavioral checklist).

EDUCATIONAL OBJECTIVES

1. The patient will know the goals of the health care team regarding his medical management, and he will acquire an awareness of special equipment and special procedures used, during the course of his hospital stay.

2. The patient will know the etiology and predisposing factors of heart disease.

3. The patient will know the significant signs and symptoms of heart disease required for objective patient reporting.

4. The patient will know what course of action to take should significant signs and symptoms of heart disease return.

5. The patient will know the recommended suggestions for modifying his life style in terms of heart disease, which may include smoking cessation, proper nutrition, proper exercise, medications, stress reduction, sexual behaviors and return to work situations.

6. The patient will know the community resources available to him, to assist him in obtaining further
information and or help towards his rehabilitation as a heart disease patient.

Controls

1. A checklist to be kept in the patient's chart will be marked off at the completion of each phase of the patient's education.

2. A post test will be administered at the end of the program to the patients participating in the program, and these will be compared to tests given to a control group who have not participated in the program.

3. Follow-up survey two weeks after discharge for the purpose of determining if the patient is following the guidelines of the program.

* See evaluation section for further explanation of post test and follow-up survey.

Action Steps

The education and counseling will be carried out by the nursing staff on a one-to-one basis, using direct communication, video tape and printed materials. The format for the program is outlined below and consists of blocks of information which will begin in C.C.U. and continue on the Medical Floor. Based on past experience by the nursing staff it has been noted that M.I. patients tend not to retain information presented to them during their
acute phase (i.e. C.C.U.); because of this, much of the information presented in C.C.U. will be repeated on the Medical Floor for the purpose of clarification. At the same time this old information will be used as a foundation for expanding the patient's awareness of his condition.

EDUCATIONAL BLOCKS

BLOCK 1
Electronic-Physiological Monitoring and Testing in C.C.U.:
A suggested list of topics for discussion related to specific equipment and tests used to help assess and evaluate the patient's physiological condition.

BLOCK 2
Diet and Fluid Therapy in C.C.U.:
A suggested list of topics for discussion related to diet and fluid balance for heart disease patients, and a rational for both.

BLOCK 3
Supportive Patient Care and Treatment in C.C.U.:
A suggested list of topics for discussion related to nursing care and treatment for the C.C.U. patient, with goals towards rest, rehabilitation and discharge planning, each appropriate at different levels and times.
BLOCK 4

Patient-Health Team Relationships:  Patient Reporting in C.C.U.:
A suggested list of topics for discussion regarding the importance of meaningful patient-health team relationships and the importance of objective and subjective reporting by the patient directed towards meeting present and future physical and emotional needs of the patient.

BLOCK 5

Preparation for C.C.U. Transfer to Medical Floor---Ongoing Rehabilitation:
A suggested list of topics for discussion to summarize material covered during the patient's stay in C.C.U., and to also include goals of the educational-rehabilitational program, estimated time planning for patient recovery, sexuality and back to work intervals.

BLOCK 6

Disease Education:
A suggested list of topics for discussion related to the etiology, anatomy and physiology of Myocardial Infarction. Discussion of significant signs and symptoms relating to heart disease.

BLOCK 7

Life Style Changes:
A suggested list of topics for discussion related to modifications of former life styles for the heart disease patient and directed towards his rehabilitation while in the hospital and after discharge.

**BLOCK 8**

Community Resources:
A suggested list of community resources available to the patient for discussion, such as the American Heart Association and the Mended Hearts.

**BLOCK 9**

Course Summary and Evaluation:
Presentation of the post test, Final problem solving session between the patient and the nursing staff and discharge from hospital. At this time we will also request that the patient fill out and return the follow-up questionnaire which will be mailed two weeks after discharge.

**BLOCK 10**

Roving Block - Family Teaching and Counseling:
This aspect of the program is to better inform the family as to what the patient has been taught during the course of the program, and what they can expect when the patient goes home. This block will be utilized throughout the course of the program, instead of only once during the program.
DISCUSSION
As was mentioned earlier, the above format will be presented in teaching blocks appropriate to the level of need expressed by or observed in the individual patient. Initially the program will be covered in C.C.U. to answer basic questions the patient may have, thereby helping to reduce the stress and anxiety factors present in a patient upon entering a strange environment. Following his transfer from C.C.U. to the Medical Floor, the same material will again be presented with the goal of augmenting the information to more fully meet patient rehabilitation needs and prepare him for discharge. Supplemental hand-out materials will be given to the patient, and will be used to augment discussion sessions.

Note: Wherever possible special personnel from the areas of Nutrition, Physical Therapy, Oxygen Therapy, Occupational Therapy and Social Services will be utilized.

EVALUATION
Short Range:
1. Post test of a selected group of patients participating in the program. Because of certain limitations placed on the evaluation due to the type of target group population
under study, a pretest cannot be administered. To overcome this problem a control group of persons from outside the hospital will be selected and given the same test as the experimental group. The assumption being, that in any given population the level of knowledge regarding Myocardial Infarction will be about the same. By this I mean that there will be individual differences but overall there will be a general level of knowledge which can be measured and compared to other groups. The hypothesis is as follows:

\[ H_0 \]
There will be no difference in knowledge between the test group and the control group.
\[(X_1 - X_2 = 0)\]

\[ H_1 \]
There will be a difference in knowledge between the test group and the control group.
\[(X_1 - X_2 \neq 0)\]

A \(X^2\) test with a confidence level of .05 will be used to accept or reject the hypothesis.

2. Subjective evaluation will be carried out with its basis in behavior change. The patient will be observed for behavior modifications throughout the
course of his hospital stay. Modifications of behavior will be recorded on a behavioral checklist kept in patient's chart. A follow-up survey two weeks after discharge will be used to evaluate patient progress since discharge as well as to sample patient reactions to the program for the purpose of making program modifications if needed.

Long Range:

1. A check of hospital records will be made one year after the inception of the program to determine if repeater tendencies have occurred among patients who have participated in the program. Should this be the case an assessment of why the patient was re-admitted to the hospital will have to take place.

2. A follow-up survey one year post hospital will be conducted for the purpose of determining patient progress and to evaluate the following behavior modifications:
   a. smoking cessation
   b. adjustment to dietary restrictions if applicable
   c. adjustment to new exercise habits if applicable.

Behaviors to be achieved by the program

In-hospital:

1. The patient will overtly or covertly demonstrate feelings of relative comfort with his surroundings.
2. The patient will overtly or covertly demonstrate understanding of the medical management being given to him by the health care team.

3. The patient will overtly or covertly demonstrate understanding of the educational-rehabilitational program available to him.

Terminal (discharge):
1. The patient will overtly or covertly demonstrate knowledge and understanding of suggested life style modifications.

2. The patient exhibits overt signs of knowledge and willingness to follow suggested life style modifications.

3. The patient verbalizes awareness and willingness to participate in special programs (as provided by community resources) at the time of his discharge.
APPENDIX B

HEART DISEASE TEACHING GUIDE
Electronic-Physiological Monitoring and Testing in C.C.U.
The following are the suggested topics for discussion with the patient upon entry to C.C.U.:
1. EKG monitoring: will occur during the patient's entire stay in C.C.U., for the purpose of confirming a diagnosis of "heart attack" within 48-72 hours of patient admission to C.C.U. Negative findings from EKG's (including bedside monitoring), laboratory testing and the patient's clinical findings will result in the discharge or transfer to another floor. Positive findings will result in the patient staying in C.C.U. for 5-7 days, and then being transferred to Medical Floor with the possibility of continued monitoring.

POINTS TO STRESS:
   a. physical location of monitors-bedside and nurses station to provide constant observation by specially trained nurses.
   b. explanation of patient monitoring-to record electrical activity of heart
      1. electrodes-placement, durability and body
movement

2. avoidance of patient interpretation of
   monitor patterns (artifacts, false alarms,
   direction of patterns).

c. rationale -- monitoring
   1. To monitor the irritability of heart muscle
      when stressed or injured-can be treated with
      medication by nurse.
   2. documentation for physician-helpful for
      diagnosis.

2. Diagnostic and routine tests while in C.C.U.

POINTS TO STRESS:

a. EKG-to monitor electrical activity patterns from
   12 views of the heart muscle (taken by EKG
   technicians)
   1. taken at time of admission and daily for
      three days
   2. "heart attack" usually produces an abnormal
      EKG, and is interpreted by M.D.

b. Blood tests taken by laboratory technicians
   1. taken at time of admission and daily for
      three days
   2. "heart attack" usually elevates normal enzyme
      levels-interpreted by M.D.

c. Chest X-ray-routine hospital admission order
   1. helpful in assessing adequacy of heart
function

2. may be repeated by doctor if desired or needed.

d. Urine specimen

1. routine hospital admission order

2. helpful in evaluating kidney function.

**BLOCK 2**

**Diet and Fluid Therapy in C.C.U.**

1. Diet: routinely the patient is placed on a reduced caloric and sodium intake diet, with emphasis on soft, easily digestible foods and restriction of caffeine and condiment use.

**POINTS TO STRESS:**

a. rationale-reduction of digestive metabolism results in decreased work load for the heart

b. sodium reduction--sodium tends to hold fluids within body tissues, thereby increasing total body fluid volume. Reduction of sodium reduces retained fluids, thereby decreasing body fluids resulting in less volume for the heart muscle to circulate.

c. condiments stimulate and increase metabolism levels, a reduction in their use will decrease metabolism and work levels for the heart.

2. Fluid intake: there is generally a reduction in the
amounts of fluids offered or allowed while the patient is in C.C.U.

POINTS TO STRESS:

a. rationale— to maintain optimal body fluid volume dependent upon individual patient's heart function.

b. low sodium, non-extreme temperature fluids given orally for the purpose of reducing sodium intake and avoiding extreme temperatures which might effectuate sudden arteriol constriction or dilatation.

c. intravenous therapy—a weak sugar solution is given at a slow rate by needle into a vein while in C.C.U., because it is a painless method of administering drugs to achieve rapid drug response and at the same time maintain body fluid balance.

3. Fluid output: calculations are carefully done to maintain proper balance between fluid intake and output.

POINT TO STRESS:
rationale— proper fluid balance between intake and output will prevent body fluid overload, thereby reducing the work load level upon the heart.
Supportive Patient Care and Treatment in C.C.U.
The following are the suggested topics for discussion with the patient while he is in C.C.U.:

1. Oxygen therapy--stressed and or injured areas of the heart are inadequately profused with blood and oxygen, probably resulting from obstructed coronary artery(s). By increasing the body's oxygen level, you increase the oxygen supply to the heart muscle, which helps promote healing and or reduce further stress.

POINTS TO STRESS:

a. oxygen is routinely used during and following periods of increased activity, such as eating, ambulation and bathing, for the purpose of replenishing the oxygen level.

b. oxygen is used to relieve the following symptoms which are indicative of inadequate oxygenation: dyspnea, chest discomfort, fatigue, weakness, cyanosis, obtunded sensorium and Myocardial irritability.

c. oxygen is readily and routinely used in C.C.U.; after transfer, oxygen therapy is greatly dependent upon the teaching that was done in C.C.U. and the integrity developed with patient for reporting signs and symptoms as outlined in "b" above.
2. Vital signs, which include blood pressure, heart rate and monitor rhythm, will be taken frequently during the patient's stay in C.C.U. to help determine normal levels and or evaluate integrity of body functions when stressed in acute period of illness.

3. Reduced activity levels—to include bedrest, bedbaths, limitation of visitors and visiting hours, and restriction of phone calls will help to maintain quiet surroundings to afford frequent periods for rest.

POINT TO STRESS:
A reduction in activity levels will help bring about a reduction in body metabolism to promote optimal rest for healing and facilitate restoration of physical, mental and emotional well being directed at meaningful rehabilitation of the patient.

4. No smoking--this is the beginning of suggested modifications in life style.

POINT TO STRESS:
Smoking adversely affects the ability of the blood to carry oxygen and constricts blood vessels, thus reducing the optimal levels of blood and oxygen to the heart muscle.

See Block 7 for a more detailed discussion of smoking hazards.

5. Elastic stockings--worn throughout most and or all of the patient's hospital stay, when activity levels
are markedly reduced.

POINTS TO STRESS:

a. elastic stockings constrict small leg veins to prevent blood clot formation.
b. foot boards are supplied to facilitate active leg exercise in order to prevent blood clot formation.

6. Drug therapy—to be used when appropriate.

POINTS TO STRESS:

a. Antiarrhythmics are used to control Myocardial irritability
b. Digitalis is used to strengthen muscle tone of the heart, and to regulate heart rate and rhythm.
c. Diuretics are used to improve excretion of excess body fluids.
d. Tranquilizers are used to induce rest and reduce anxiety.
e. Stool softeners are used to expedite effortless passing of stool.
f. Anti-coagulants are used to reduce the tendency towards clot formation.

BLOCK 4

Patient—Health Care Team Relationships—Patient Reporting in C.C.U.

The following are the suggested topics for discussion with the patient while in C.C.U.:
1. Patient expectations--this will involve an assessment and evaluation by the health care team regarding the patient's physical and emotional needs with appropriate intervention and treatment.

POINTS TO STRESS:

a. meeting patient's physical needs--arrhythmia assessment and treatment, rest and rehabilitation, relief from physical discomfort, maintenance of proper nutrition and fluid balance, appropriate drug therapy and continual clinical assessment will afford patient safety.

b. meeting patient's emotional needs--establish health care team awareness and empathy with patient and direct appropriate plan of care. Include patient's family when appropriate.

c. continue to support, reinforce and rehabilitate the patient, while observing for behaviors. Listen for verbalizations related to emotional needs.

2. Patient reporting--it is desirable to develop an integrity with the patient in order to establish the roles of the patient and health care team, which must be interdependent in order to meet patient needs.

POINTS TO STRESS:

a. there are a number of symptoms common to many M.I. patients, which include weakness, fatigue
dispnea, awareness of vague feelings of chest discomfort following activity. Develop an integrity with the patient towards meaningful patient reporting. Institute oxygen and or drug therapy when needed, and reassure the patient.

b. there are a number of emotional feelings common to many M.I.'s, which include anxiety, fear, denial, depression, anger and hostility. Develop an integrity with the patient to verbalize these feelings. Assess patient needs and institute appropriate intervention. This may include the patient's family and or hospital resource personnel, when and if appropriate.

BLOCK 5

Preparation for C.C.U. Transfer to Medical Floor --

Ongoing Rehabilitation

The following are suggested topics for discussion with the patient prior to transfer from C.C.U. to Medical Floor:

Review and continue with the following subject areas:

1. awareness of Medical Management
2. awareness of physical and emotional progress
3. awareness of ongoing teaching and rehabilitation program
4. awareness of interdependence of patient and health
care team

5. awareness of increased patient responsibilities--
communication, reporting and decision making.

6. awareness that the acute stage of his illness is over-
further rest, rehabilitation, recovery and discharge
planning will follow on the Medical Floor.

7. awareness of estimated time planning related to
recovery and return to work status (this varies with
the patient's condition and physician).
   a. C.C.U. stay 5-7 days
   b. Medical Floor stay 7-10 days
   c. Return to work—there months (may be part time—
      it is realistic to believe that M.I. patients
      with satisfactory recoveries can and will return
      to their former work situations).

8. awareness of resuming sexual relations after
recovery.

Patient Transfer to Medical Floor

The patient will be transferring from C.C.U. at this time
with a limited knowledge of heart disease, evaluation of
his clinical course of treatment and progress, and an
awareness of the goals of the health care team to meet his
physical and emotional needs, all directed towards his
rehabilitation and discharge from the hospital. We will
assume that stress and other factors have been operating,
and that he has not retained all of the information he was
given in C.C.U. Because of this situation it will be
necessary to re-acquaint the patient with this basic in-
formation, while at the same time orienting him to the
Medical Floor. Use the preceding sections as a reference
where needed and proceed with the following:
1. Medical Management and treatment during rehabilitation
2. Meaningful patient-health care team relationships and
   patient reporting of objective and subjective signs
   and symptoms
3. Physical surroundings-semi private room, noise factors
   and increased hospital activity levels
4. Diagnostic testing and special procedures
5. Diet and fluids
6. Activity levels versus patient toleration-need for
   patient and family to establish visiting numbers and
   hours, and phone call interruptions to avoid physical
   and emotional symptoms
7. Treatment of physical and emotional symptoms-oxygen
   therapy, medications, reduction of activity, patient
   reporting to doctor and dietary revisions.
8. Occupational therapy
9. Other procedures not covered in the above.

BLOCK 6
DISEASE EDUCATION
It is assumed that there will be some patients who cannot and/or desire not to learn this area in great depth. Should this be the case, attempt to cover this area in broad general terms. You will note that much of this program dealing with life style modifications will hinge on an understanding of general concepts related to Myocardial Infarction. Please discuss the below listed topics with the patient and his family when possible.

1. The heart: to include a description of the heart as a muscle, and its function as a pumping mechanism.

   Use the handout "Your Heart and How It Works"

   POINTS TO STRESS:
   a. the heart is the pump of the body
   b. heart action--the entire pumping cycle (pumping oxygenated blood to all parts of the body) takes place normally in less than one second. There are 60-100 beats per minute on the average and rate increases with increased physical and emotional activity
   c. discuss the heart cycle as it pumps blood and label the anatomy of the heart as this action takes place.

   Use the handout "About Your Heart and Your Bloodstream"

2. The Circulatory System: to include a discussion of the difference between arteries and veins and their
relationship to the nourishment of the body. A discussion about the bloodstream is to be included in this section.

Use the handouts "The Circulatory System" and "About Your Heart and Your Bloodstream"

POINTS TO STRESS:

a. the Circulatory System is made up of arteries and veins, whose purpose is to transport blood, carrying vital nutrients and waste products into and away from tissues of the body

b. veins carry blood high in CO₂ content to the heart and lungs, while arteries carry blood high in oxygen and vital nutrients to tissues and organs throughout the body

c. capillary function—feeding of tissues and discharge of waste products.

3. Disease etiology: a description of the events which may precipitate heart attack, such as improper diet, obesity, high blood pressure, smoking, stress and lack of proper exercise.

Use the handout "Heart Attack"

POINTS TO STRESS:

a. Atherosclerosis
b. Coronary thrombosis--coronary occlusion
c. Collateral circulation
d. Angina Pectoris
4. Signs and symptoms: list the signs and symptoms of a heart attack and discuss the importance of time as it relates to survival.

Use the handout "Save Someone's Life" and "Attack? You'd Better Believe It!"

POINTS TO STRESS:

a. heaviness or squeezing discomfort in the center of the chest lasting five minutes or more. This may be a strong pain or a mild feeling of pressure or "gas"

b. There may be pain in the shoulder, arm, neck or jaw

c. sweating, faintness, nausea and vomiting are sometimes present during and after an attack

d. the longer an individual waits following the onset of these symptoms, the less likely he is to survive

e. what should you do?—GET TO THE NEAREST HOSPITAL AS SOON AS POSSIBLE!!! TIME COUNTS!

BLOCK 7

Life Style Modifications

The following life style modifications are recommended for all heart disease patients, though they may be modified to meet patient needs and or doctors orders. It is recommended that the program herein be tailored according
to the individual patient's needs, keeping in mind the background and life style of the patient before he entered the hospital. The important point here, is not to so totally disrupt the patient's previous life style that we create more stress than he is already carrying. Attempt here to instill confidence in the patient that he can successfully adopt and cope with the suggestions you are about to make.

1. Smoking and Heart Disease: smoking has been linked to lung cancer, heart disease, emphysema and gastrointestinal disorders. From a physiological point of view, smoking causes constriction of blood vessels, which puts added strain on the heart.

Use the handouts "Smoking and Heart Disease" and "How To Stop Smoking"

POINTS TO STRESS:

a. tobacco contains nicotine, which acts on the heart, blood vessels, digestive tract, kidneys and nervous system

b. tobacco also contains small amounts of tars and other substances which may produce cancer

c. 90 percent of the nicotine in tobacco smoke is absorbed into the body when smoke is inhaled, and only 10 percent when smoke is not inhaled

d. smoking increases the heart rate, causes an elevation in blood pressure and constricts blood
vessels of the skin. Initially, smoking affects the small arteries of the fingers and toes, but may later involve the larger blood vessels.

e. Persons with heart disease are more sensitive to the reactions of smoking, because it aggravates conditions that are already present.

f. The condition of constriction of blood vessels can be stopped if smoking is stopped, but will resume if smoking is resumed.

g. Heavy cigarette smokers run a higher risk of heart disease than non-smokers, and is proportional to the number of cigarettes smoked.

2. Exercise and Heart Disease: the correct amounts of exercise will be prescribed by the doctor. This section is meant as a general guide to the benefits of exercise for everyone.

Use the handout "After A Coronary"

POINTS TO STRESS:

a. Exercise is an important contributor to the health of an individual, but more importantly it can strengthen the heart and improve circulation.

b. Do not confuse exercise with exertion, for exertion produces symptoms of fatigue.

c. Regular exercise can strengthen the muscle tone of the heart, enabling it to more efficiently pump blood to the tissues of the body. Regular
exercise can also increase the blood supply by improving circulation within already existing coronary arteries, and or may also further develop already established but unused coronary arteries to improve circulation to the heart muscle itself.

d. for practical reasons, walking is one of the best exercises you can do because it does not require special equipment or surroundings, and costs nothing in terms of other forms of exercise. Your doctor will develop an exercise program for you as you progress with your recovery, which will be appropriate for you--follow his recommendations closely.

3. Nutrition and Heart Disease: to include a discussion of diet as it relates to heart disease, with emphasis on any special diet the patient may be on. It will be important to involve the family of the patient in this section as much as possible.

Call in the Nutritionist from Dietary Services whenever possible

Use the handout "Take Heart" and notify patient that he can get diet schedules from the heart association by prescription

POINTS TO STRESS:

a. more and more, through studies, diet is being
related to heart disease on two major counts:

1. **Too Much Food** - leading to obesity

2. **Too Much Fat** - leading to an elevation of blood cholesterol and other fatty lipids

b. evidence indicates that cholesterol and other fatty lipids are found in high concentrations in the fatty deposits of arteriosclerosis. Atherosclerosis, a condition related to arteriosclerosis is also effected by these high concentrations of lipids.

c. a reduction in the amounts of saturated fats ingested will lead to a reduction in blood fat levels. Eat poly-unsaturated fats in place of saturated fats, and cut down on both as much as possible.

d. Special diets:

*500 milligram Sodium Diet*

the purpose of the low sodium diet is to restrict the amounts of sodium consumed by the patient. Sodium is found in varying amounts in both food and water. Your body needs sodium to function normally, but too much sodium can cause the body to function improperly. In the case of a heart patient, sodium acts to hold water in the body, which causes the blood volume to be increased.
This means that the heart must work harder to pump this increased blood volume throughout the body, thus putting an added strain on the heart at a time when it needs less strain in order to facilitate healing. If you are on a special diet, follow it to the letter.

**Low Fat Diets**

The purpose of low fat diets is to reduce the amounts of cholesterol and other fatty lipids in the bloodstream. Following a low fat diet will help retard the condition known as arteriosclerosis, or hardening of the arteries. This means that the passageways through the arteries become narrowed and roughened by fat deposits, and the blood cannot flow freely. Atherosclerosis of the coronary arteries can result, and this often underlies a heart attack.

4. **Stress and Heart Disease:** this is a highly sensitive area, but one that bears consideration.

**POINTS TO STRESS:**

a. there appears to be a relationship between heart disease and stress. We are all subject to stress in one form or another every day of our lives.

b. a number of physicians now speculate that stress by itself is not the important factor, but that the individuals "stress reaction" is the key
factor.

c. the body's reaction is one of "fight-fight."
This means that every part of the body is keyed up, ready for action. The heart beats faster, pumping more blood and dilating blood vessels. In times of danger, this reaction helps the body to save itself. In most cases, however, this reaction is unnecessary and unused. This may lead to increased blood pressure and added strain on the heart muscle.

d. of all of the contributors to heart disease, stress is likely to remain the most unproven, or at least the hardest to prove. Studies are underway to find out more about stress, but in the meantime, attempt to minimize stress situations and develop an awareness of how you might better handle areas of stress in your life.

5. Sexuality and Heart Disease: this is another sensitive area, which is best left to the primary physician. This section is meant only as a guide to some general statements regarding coitus after heart attack.

POINTS TO STRESS:

a. physiological reactions occurring during coitus vary from very mild to very extreme in intensity. This means that in some cases the increase in
respiration, heart rate and blood pressure are minimal, while in others they are intense

b. in the normal male and female, all physiological reactions during coitus return to normal within seconds after orgasm

c. statistics regarding coital death are meager and very difficult to obtain with scientific accuracy. Disregard tales of coital death, and listen to what your doctor suggests

d. resumption of sexual activity after an acute M.I. averages about three months. In many cases normal sexual activity can be returned to, in some cases it may be decreased

e. report the following:
   - Anginal pain occurring after coitus
   - palpitation which continues for 15 minutes or more following coitus
   - inability to sleep caused by sexual exertion
   - marked fatigue during the day following coitus

f. avoid coitus within three hours of a meal

g. alcohol dilates blood vessels and increased heart rate, avoid it for at least three hours prior to coitus

h. fatigue is hazardous - avoid coitus if you are tired - an optimal time for coitus is in the morning followed by a rest period
i. Tension and fear have effects on the heart - avoid coitus during times of tension and fear - coitus should occur in a relaxed atmosphere.

j. Positioning for coitus should be one that places the least strain on the heart - the following are examples:
- The cardiac patient sits in a wide chair with his feet resting on the floor
- The non-cardiac partner flat on back, with the cardiac patient on top
- Both partners lying side by side and face to face

k. Congenial partners who are accustomed to each other and whose sexual routine is habitual, can achieve sexual satisfaction without placing undue stress on the heart.

l. A mutual consideration for the well being of both partners will foster a loving sexual relationship, bring peace and contentment - do not be afraid to ask questions. Coitus is an important part of life and your doctor and nurse are here to help you return to as normal a life as possible.

BLOCK 8

COMMUNITY RESOURCES

At the present time there are very few community resources
available to assist the recently discharged Myocardial Infarction patient. As new resources become available they will be added to this guide. One possible suggestion for a new resource might be a club or association made up of post M.I.'s, who could band together for social, educational and visiting services activities. As a start you might suggest this as one possible activity the recuperating M.I. could work on. The below listed resources are presently available and should be utilized as much as possible.

1. Social worker:
   To assist with financial and family problems both in and out of the hospital. Should this kind of resource be needed, contact Mrs. Speevak in the Social Services Department of the hospital.

2. Psychiatric Nurse Coordinator:
   To assist the patient with mental and emotional problems in the hospital. Contact Mrs. Fabian for assistance in this area.

3. Inhalation Therapy and Physical Therapy:
   If the patient will need the services of either of these departments call them in for consultation.

4. American Heart Association:
   a. Provides printed materials for distribution to persons seeking information about heart disease.
   b. Provides films for use by groups wishing to know
more about heart disease.

c. Provides a call-in dietitian service, free of charge, to assist the patient and his family in the areas of food preparation and where to buy special foods for the heart patient.

d. Operates a "Heart Fair" annually, to discuss nutrition and other factors the heart patient would be interest in. This program is advertised several weeks in advance. Refer to the handout "Save Someone's Life" for address of nearest Heart Association.

5. The Mended Hearts:

This organization is primarily concerned with heart surgery patients, but does have educational and social events for heart patients. They also have a visiting service for pre and post heart surgery patients. For further information contact:

THE MENDED HEARTS, Inc.
Chapter 69, Los Angeles
14532 Vanowen Street
Van Nuys, California 91405
Telephone 873-1553

6. Community educational seminars and lectures by physicians, noted authorities and groups - check with your Heart Association and watch your newspaper.
BLOCK 9

Program Summary and Evaluation

This is the last phase of the program. Encourage the patient to ask questions that he may still have. Continue to instill confidence in the patient, that he is capable of managing his own home self care. Record any final behavior changes you may note on the forms provided. Follow the below listed outline for completion of the program.

1. Request that the patient fill out the evaluation questionnaire and write any comments he may have on that questionnaire.

2. Inform the patient of the follow-up survey to be conducted several weeks post hospital.

3. Encourage the patient to follow doctors orders after discharge.

4. Encourage the patient to report any new or increasing signs or symptoms of heart disease to his doctor.

5. Handout the discharge instructions, and go over them to make sure the patient understands them.

BLOCK 10

FAMILY EDUCATION AND COUNSELING

The following are suggestions for gaining family support, and educating the family in this program.
1. Explain what the program is about to the family as soon as possible, following admission to the hospital.

2. Talk to the patient's family as often as possible during the course of the program.

3. Try to schedule some of the teaching for times when the family is visiting the patient. This will lead to greater family involvement in the program.

4. Request the family to encourage the patient to become actively involved in the program.

5. Encourage the family to read the handout materials provided to the patient, and ask questions for clarification.

6. Provide the family with information on who to talk to for questions you can't answer, or for guidance on social service, medical treatments and other problems.
APPENDIX C

PROGRAM CHECKLISTS
G.H.C.H.

HEART DISEASE TEACHING PROGRAM

INSTRUCTION CHECK LIST

PATIENT NAME

PLEASE INITIAL EACH TOPIC WHEN STARTED AND WHEN COMPLETED

<table>
<thead>
<tr>
<th>SUBJECT AREA</th>
<th>STARTED</th>
<th>COMPLETED</th>
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<td>B-1</td>
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<td>Electronic - Physiological Monitoring and Testing in C.C.U.</td>
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<tr>
<td>Life Style Modifications</td>
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95
BEHAVIORAL CHECK LIST

Please check the appropriate response and make comments as necessary for the following categories:

Discharge Criteria

The patient will:

1. Overtly or covertly demonstrate feelings of relative comfort with his surroundings.
   YES  NO  Don't Know
   Comments

2. Verbalize awareness of test results and special procedures.
   YES  NO  Don't Know
   Comments

3. Overtly or covertly demonstrate confidence to manage self care at home.
   YES  NO  Don't Know
   Comments
4. Overtly or covertly demonstrate awareness and willingness to follow suggested life style modifications. 

YES NO Don't Know

Comments

5. Overtly or covertly demonstrate awareness of and willingness to utilize community resources available. 

YES NO Don't Know

Comments

6. Verbalizes awareness and willingness to comply with any follow-up schedule 

YES NO Don't Know

Comments

Please comment on any overt or covert behaviors you feel are pertinent, that the patient may be exhibiting:

________________________________________________________________________

________________________________________________________________________

DISCHARGE INSTRUCTIONS

The following is a list of post-hospital instructions to help you as you adjust to being home again.

1. DIETARY SCHEDULE:

2. MEDICATIONS TO FOLLOW:

3. EXERCISE AND ACTIVITIES:
4. **TREATMENTS AND SPECIAL EQUIPMENT:**

5. **NEXT APPOINTMENT WITH PHYSICIAN:**

6. **NOTIFY YOUR PHYSICIAN SHOULD THE FOLLOWING OCCUR:**

7. **FOLLOW-UP:** Approximately two weeks after you leave the hospital you will be contacted by the hospital. The purpose being to see how you are doing and to answer any questions you may now have.
APPENDIX D

EVALUATION QUESTIONNAIRES
G.H.C.H.
HEART DISEASE TEACHING PROGRAM
SURVEY QUESTIONNAIRE

In the following pages you will find a series of statements about heart disease. Read them carefully and mark them according to whether they are true or false.

1. The machine that looks like a T.V. above your bed in the Cardiac Care Unit is used to aid the staff in knowing how well your heart is functioning.

2. Patients who have had a "heart attack" usually do not have to follow any dietary restrictions.

3. "Heart attack" usually produces an abnormal EKG.

4. Smoking has no effect on heart disease.

5. Oxygen therapy helps promote healing of the heart muscle.

6. On the average a "heart attack" patient can expect to return to work in about one month.

7. One of the effects of smoking on heart disease is that smoking causes constriction of blood vessels, thus putting an added strain on the heart.

8. The heart is the pump of the body, and beats 60-100 times/minute.

9. Atherosclerosis is narrowing of the coronary arteries.

10. The Circulatory System is made up of nerves and
muscles, whose purpose is to keep the heart beating.

11. A Myocardial Infarction can be caused by a blocked coronary artery.

12. A Myocardial Infarction means that a section of heart muscle has been damaged because of a loss of blood circulation to the injured part.

13. Heart disease is a crippling, debilitative disease, which is usually fatal.

14. Improper diet, obesity, high blood pressure, smoking and stress may bring on a heart attack.

15. Exercise can strengthen the heart and improve circulation.

16. For a heart disease patient, a diet high in sodium content will facilitate healing of the heart muscle.

17. A heart disease patient should eat a diet high in saturated fats and low in poly-unsaturated fats.

18. A low fat diet will help retard the condition known as arteriosclerosis (hardening of the arteries).

19. There appears to be a relationship between stress and heart disease.

20. On the average a Myocardial Infarction patient can resume normal sexual relations one month after a heart attack.

21. Walking is an excellent exercise for most Myocardial Infarction patients.
22. Prolonged, oppressive pain in the center of the chest is a warning signal of heart attack.

23. You should always wait at least 24 hours before calling your doctor, following the onset of chest pain.

24. A person who has had a heart attack, can generally expect to return to a normal life again.

25. There are organizations in the community to help a heart disease patient live better with his condition.
G.H.C.H.
HEART DISEASE TEACHING PROGRAM
FOLLOW-UP QUESTIONNAIRE

Dear ____________, you have recently participated in an educational program for Myocardial Infarction patients at Granada Hills Community Hospital. This survey will help us to evaluate our program, so that we may make any changes appropriate to the improvement of the program to further ensure better patient care and teaching. Please answer the questions below, and make any comments you feel are important or appropriate.

1. Since your discharge from the hospital, have you found that the information you received in the hospital of value to you? Please be specific.

2. Did you feel overwhelmed with the information you received while in the hospital?

3. Do you feel that the teaching program progressed too fast or slow?

4. Do you feel that the printed material was of use to you and your family as a part of the program, and was it easily understandable?
5. Did the hospital staff answer your questions to your satisfaction?

6. Do you have any questions now, since your discharge; if so, please write them down?

7. Do you feel that your family was adequately informed of your progress, and of the information you received while in the hospital? Please be specific.

8. Do you feel that you have adjusted well to your new routine at home (diet, smoking cessation, exercise, medications, etc.)?

9. How has your family adjusted to the change in routine in your home?

10. Have you utilized any of the community resources available to you since leaving the hospital?

11. Do you have any suggestions we might pass on to other patients participating in the program, or their families (such as coping with life style modifications)?
12. Do you have any suggestions for improving the program you have participated in?

P.S. Would you be willing to visit other heart disease patients who are currently undergoing treatment and education at the hospital?

Thank you for your cooperation.
BIBLIOGRAPHY

American Hospital Association, Health Education in the Hospital, Chicago, Ill., 1965.


Memorial Mercury, Modern Medicine and Your Heart, Memorial Hospital Medical Center of Long Beach, 1973.


Program Handouts


