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A Literature Review of the Team Approach in the Cardiac Rehabilitation Process

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A LITERATURE REVIEW OF THE TEAM APPROACH
IN THE CARDIAC REHABILITATION PROCESS

by

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Bachelor of Science in Physical Therapy
University of North Dakota, 1993

An Independent Study
Submitted to the Graduate Faculty of the
Department of Physical Therapy
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in partial fulfillment of the requirements
for the degree of
Master of Physical Therapy

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1994
This Independent Study, submitted by Kristin Nelson in partial fulfillment of the requirements for the Degree of Master of Physical Therapy from the University of North Dakota, has been ready by the Faculty Preceptor, Advisor, and Chairperson of Physical Therapy under whom the work has been done and is hereby approved.

(Graduate School Advisor)

(Chairperson, Physical Therapy)
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Title         A Literature Review of the Team Approach in the Cardiac Rehabilitation Process

Department    Physical Therapy

Degree        Master of Physical Therapy

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ABSTRACT

Teamwork is a term that is now commonplace in the provision of health services for all people. Variations of this team are widely used, such as multi-disciplinary teams and inter-disciplinary teams. A health care team is a group of persons, each possessing particular expertise, who have a common purpose and goal. Teams including professionals, such as nurses, doctors, physical therapists, social workers, and other staff, depending on needs and local resources, are now commonplace in hospital and community services.

The purpose of this independent study is to review the literature regarding collaborative team approaches to cardiac rehabilitation. Included in this review is: (a) a history of team processes in cardiac rehabilitation, (b) the function of a cardiac rehabilitation team, (c) definition of team members' roles and responsibilities, and (d) a review of the effectiveness of the team process.

Essentially, the cardiac team concept of health care delivery evolved as a compromise between the benefits of specialization and the need for continuity and comprehensiveness of care. The future direction in cardiac rehabilitation lies in the improvement of inter-disciplinary teams and an understanding of the concept of team work.
CHAPTER I
INTRODUCTION

This clinical description of angina pectoris was presented by William Heberden at the College of Physicians in London in 1768.¹

This first symptom is a pretty full pain in my left arm a little above the elbow, and in perhaps half a minute it spreads across the left side of my breast and produces either a little faintness or a thickness in my breathing at least I imagined so, but the pain generally obliges me to stop. At first it went off instantaneously, but of late by degrees, and if through impatience to wait its leaving me entirely, I resumed my walk, the pain returned.²

Although angina pectoris was first described in 1768, coronary artery disease (CAD) symptoms were observed over 2,000 years ago.²

As the population ages, heart and blood vessel diseases affect more people. And even now, despite the gains from research and the decline in death rates, a grim fact remains: someone dies from cardiovascular disease every 34 seconds.³⁴ Of the current United State population estimated at 250 million, more than 70 million, or more than one in four Americans, suffer some form of cardiovascular disease.³ Approximately 1.5 million persons in the United States will experience a heart attack this year and about 500,000 of them will die.⁴ In other words, cardiovascular disease holds the deadly distinction of being the number one killer in America.³
The resulting cost of cardiovascular disease in 1993 was estimated by the American Heart Association at $117.4 billion. This figure included the cost of physician and nursing services, hospital and nursing home services, the cost of medications, and lost productivity resulting from disability.

Although these statistics are alarming, the significance of this disease to the United States population cannot be denied. Nearly one million people in the United States survive an acute myocardial infarction and/or open heart surgery each year. The decline in coronary mortality in the United States has been observed in all adult age groups, in both sexes, and in non-white as well as Caucasian populations. Accompanying this decline are major improvements in access to sophisticated medical services and in medical technology.

Along with these major improvements, there has been much speculation concerning possible factors contributing to the decline in cardiovascular mortality. Although it is not possible to measure the relative contribution of each component, there is strong evidence that changes in diet, smoking, serum cholesterol levels, hypertension, body weight, and physical activity are having beneficial effects. The many innovations in early diagnosis and treatment, improved care in the hospital, and post discharge medical management of coronary patients have also, undoubtedly, prolonged lives. No treatment can fully restore function to the irreversibly damaged heart or brain. Only a preventive approach in this common lethal disease, which often attacks with little warning, can substantially affect reduction in cardiovascular mortality.
One of several challenges facing health care personnel is that of improving the quality of life experienced by the patient during cardiac rehabilitation. A comprehensive rehabilitation program often not only assists the patient in returning to the previous level of functioning but actually may assist the individual to regain a higher activity level. Cardiovascular rehabilitation has become an accepted component of patient care after acute myocardial infarction, cardiac surgical procedures, and other cardiovascular disorders. In a literature review, Oldridge and colleagues showed that there is a need for secondary prevention of CAD in the long-term management after myocardial infarction and post surgery patients, suggesting that a cardiac rehabilitation program is advantageous for this patient population.

According to American College of Sports Medicine guidelines, “Cardiac rehabilitation is a multiphasic program of medical care that is designed to restore the CAD patient to a full and productive life. Programs are concerned with the physiological, psychological, social, vocational, and recreational aspects of human function. The following interventions should be included in cardiac rehabilitation programs: exercise therapy, psychological counseling, vocational counseling, and behavioral intervention regimens to facilitate dietary change, smoking cessation, and stress management.” Again, medical surveillance of the rehabilitation patient should be provided by all these programs.
The true concept of primary health care encompasses not only medical care but also health promotion and illness-prevention strategies. These are aimed at maintaining and enhancing the health of the population through health education and early identification of health problems. "To deliver such an all encompassing service requires a diversity of skills and for this reason a team approach to care has been advocated."

Essentially, the cardiac team concept of health delivery evolved as a compromise between the benefits of specialization and the need for continuity and comprehensiveness of care. The future direction in cardiac rehabilitation lies in the improvement of interdisciplinary teams and an understanding of the concept of team work.

The purpose of this independent study is to review the literature regarding collaborative team approaches to cardiac rehabilitation. Included in this review will be: (a) a history of team processes in cardiac rehabilitation, (b) the function of a cardiac rehabilitation team, (c) definition of team member's roles and responsibilities, and (d) a review of the effectiveness of the team process.
CHAPTER II

HISTORY

Efforts in cardiac rehabilitation began in the 1930s, where the usual treatment of patients included six weeks of strict bedrest. Both deconditioning of the myocardium and skeletal muscle, and a loss of vasomotor reflexes resulted from this period of drastically reduced activity.\textsuperscript{12} In 1951, early mobilization was advocated by Levine and Lown.\textsuperscript{13} They reported that progressive periods of sitting upright in an armchair decreased morbidity and mortality considerably.

In 1957, Hellerstein and Ford\textsuperscript{14} emphasized the importance of starting the rehabilitation process "at the moment the patient is first stricken with this disease," paying close attention to the emotional as well as physical consequences of the attack. They believed that 80\% of post cardiac care could be managed by the 'private physician' and "only a minority required the attention of a specialist team."

In the 1960s, coronary-care units and continuous electrocardiographic monitoring were introduced and practiced along with progressively earlier mobilization. Investigators realized that emotional and physical invalidism, invariably occurring after a coronary event, was less than previously thought.
Consequently, aerobic exercise training and some vocational readjustment began to dominate rehabilitation.\textsuperscript{15}

In 1968, Hellerstein\textsuperscript{16} went on to describe the physical training program he had devised to improve the fitness of "habitually lazy, hypokinetic, sloppy, endomesomorphic over-weight victims of coronary artery disease." Hellerstein concluded that an active intervention program of conditioning including exercise, weight reduction, diet therapy, and cessation of smoking was feasible, reasonably acceptable, and appeared to be of benefit in the treatment of coronary heart disease.\textsuperscript{16} Hellerstein concluded that it was possible to "add life to years and perhaps add years to life."\textsuperscript{17} Mariano\textsuperscript{18} proposed that no single discipline could possibly respond to the complex problems of a cardiac patient. Each of these problems required a comprehensive approach and necessitated that professionals collaborate with many professions.

During the 1970s, the emphasis on "cardiac team" arose from a need to deal with the increasingly complicated delivery of health service that resulted from the knowledge explosion in basic science and medical technology.\textsuperscript{19} The multidimensional aspects of cardiovascular rehabilitation were then acknowledged, and established methods of treatment developed.\textsuperscript{19} Risk factor concepts, guidelines for cardiac exercise programs, and efforts at secondary prevention were established. The team approach gained widespread support as an integral component of comprehensive cardiology.\textsuperscript{20}
The amount of literature on teams in the delivery of cardiac health and illness services is enormous. The fact that so much has been written on the topic, with a variety of definitions, clearly indicates that there is no generally accepted definition of the word "team." The term is applied in widely varying instances and situations; and the concept holds a degree of attraction as an ideal or goal to be reached.

With time, in the development of health professions, each new specialty group narrowed its focus, increased its depth of knowledge, and gained more expertise regarding a smaller proportion of the patient's problems, needs, and lifestyles. This was the foundation from which physical therapy, occupational therapy, medical social work, and several other allied health professions developed.¹¹

Interdisciplinary teams comprised of both physician and non-physician health professionals offer the greatest potential for providing the breadth of preventive services. The future of cardiac rehabilitation must include more coordinated efforts between physicians and rehabilitation professionals if cardiac rehabilitation is to improve prognosis in coronary heart disease.¹¹
CHAPTER III

FUNCTION

The concept of team in health care delivery appears to be derived from its more general usage in society, particularly in the sports arena. Here, teams composed of athletes, organized similarly in specified positions and roles, are pitted against one another. There are the same number of players in the same position on each team.\textsuperscript{11}

However, "cardiac teams" in health care delivery function differently. There are teams of two and teams of 20; there are core teams and adjunction teams; the "players" are uni-disciplinary or multi-disciplinary. Cardiac teams are not pitted against an opposing team; instead, the focus of the team activity is usually a single individual, the patient, or possibly, the patient and his family. Alternatively, the team focus is on a grouping of individuals; for example, all of the patients involved in a cardiovascular setting.\textsuperscript{11}

General criteria for the structure of a cardiac team is a group of representatives from several disciplines, each possessing particular expertise, but all striving towards a common purpose and goal. Therefore, a good definition of the function of a cardiac team might be "achievement of a maximum level of independent function in light of the individual's physical,
cognitive, and motivational abilities and limitations. Within the group, there is an organized division of labor. Each individual is responsible for making and implementing decisions in his/her own specific area within the total framework. However, all members share responsibility and accountability for the patient's well being. When the members meet to communicate, collaborate, and consolidate knowledge, plans are made, actions determined, future decisions influenced, and the accomplishments of the goals evaluated.

The idealized cardiac team is the inter-disciplinary one. Members of different disciplines are meaningfully involved in formal and informal arrangements that maximize opportunities for integrated performances and service delivery. The differences between multi-discipline and inter-discipline have been addressed eloquently by Melvin.

Multi-disciplinary designation refers to activities involving the efforts of individuals from several disciplines. Their efforts are discipline-oriented; consequently, to operate in a multi-disciplinary setting, Melvin pointed out "one need only know the skills necessary for one's own discipline." Inter-disciplinary also refers to activities performed toward a common goal by individuals representing different disciplines. However, individuals have the added responsibility of group effort on behalf of the patient. This effort requires the skills necessary for effective group interaction and the knowledge of how to transfer integrated group activities into a result which is greater than the simple sum of the activities of each individual discipline. The group activity of an inter-
disciplinary program is synergistic, producing more than each could accomplish individually and separately.\textsuperscript{24}

There are several different ways a rehabilitation team can be structured. There are teams organized according to body systems, around the concept of delivery of care, and according to practice specialty.\textsuperscript{6} Another category can be identified as site of delivery of performance; for example, nursing home team and ambulatory care teams. Also, teams may be identified as dealing with a specific target population; for example, abused children or disabled adults. Cardiac rehabilitation teams are structured to deal with the specific disease or symptom entities. Teams organized so differently can function according to any set of basic standards for team performance.\textsuperscript{11}

Two other major variables, size and discipline, affect team functioning. One may assume that size of the team causes a marked effect on the mode of functioning and integration of activities of any team. According to the focus of the team practice, team membership regarding disciplines represented varies markedly.\textsuperscript{11}

Beyond differences in size and discipline, there are also differences among the individuals serving on the team. Such differences include those relating to hierarchy, power, status, authority, salary, age, sex, and race. Conflict regarding these differences may result in bitterness about the functioning of the rehabilitation team. Bitterness that stems from the frustration that occurs when the reality does not match the idealized goal.\textsuperscript{25} All of these
factors clearly have an effect on the organization of the team and how effectively it will function.

Team functioning does not occur spontaneously nor is it sustained without effort. Teams draw from and contribute to the culture of the cardiac health care organization in which they exist. The somewhat amorphous, united appearance of a functioning team which apparently is lacking an accountable supervisor may represent a threat to an organization that is strongly committed to the hierarchical pyramid.

Often several team members are involved in interventions to address a single problem; some problems may overlap, and team member must feel comfortable when professional boundaries are blurred. That is not to say that team members are interchangeable since the specialized skills of, for example, the physical therapist and social workers are both vital. However, both professionals must be able to understand and act on team issues outside their fields of specific expertise.

To summarize, teamwork in the care of cardiac patients, with the complexity of their problems, requires that the perspectives of several health disciplines be acquired regarding the patient’s physical and mental health, locomotor and functional capabilities, and social interaction. Since the problems of the cardiac patient are complex and interactive, these perspectives should be shared to reach a common understanding of the health, social, and functional issues and to plan interventions. Teamwork facilitates the
prioritization and integration of various investigative, rehabilitative, and therapeutic interventions and provides a vehicle for case management.

An interdisciplinary team is more than a collection of people. It is naive to bring highly diverse, skilled professionals together and assume that, by calling this group a team, it will act like a team. An interdisciplinary team is an entity that has a structure, a definition, a direction, an identification, and "group energy" or synergy. Interdisciplinary team functioning is also a process of development and change.

Patient care should be approached by team members on the basis of a clear conception and generally accepted definition of inter-disciplinarity. Expectations and directions of team participants must prevent variation considerably from definition of roles. Clear, specific identification of team goals, assessment of members' perceptions of the goals, achievement of consensus regarding priorities, agreement on action to be taken, and a focus on outcomes are activities that greatly reduce conflict and promote team functioning.
CHAPTER IV

ROLES AND RESPONSIBILITIES

The cardiac rehabilitation process begins when a patient is admitted during a hospital stay for myocardial infarction, unstable angina, or coronary revascularization by angioplasty or bypass procedure. As a consequence of shortening of hospital stays for all cardiac treatments, the goals of inpatient cardiac rehabilitation are limited to the most important areas. These important goals include: providing a structured, progressive, ambulation program so that patients will be physically able to perform customary activities at home; teaching patients to recognize important cardiac symptoms and to take appropriate action; instructing patients in how to obtain routine and emergency medical care; and providing basic information about the outpatient rehabilitation process.

Since professionals of no one discipline have the expertise to manage all of these areas listed above, a variety of disciplines is needed. The Cardiac Rehabilitation Program is staffed by an interdisciplinary team of licensed health care professionals under the supervision of the medical director of cardiology. In the formation of the team, agency personnel might consist of a cardiac rehabilitation coordinator, nursing, physical therapists, occupational therapists,
and social workers. Non-agency professional membership on the team might include not only the physician, but also a psychologist, pharmacist, recreational therapist, vocational rehabilitation worker, dietician, and clergymen. Finally, the most important members of the cardiac team are the patient and his/her family.

Although any number of disciplines could be represented on the cardiac team, this study will concentrate on the most common. The following are definitions of team members' roles and responsibilities as outlined in current literature on effective teams and as recommended by the Cardiac Rehabilitation Program at United Hospital, Grand Forks, North Dakota.

**TEAM MEMBERS**

1. Physician of Cardiology (Director)
2. Cardiac Rehabilitation Coordinator
3. Nursing
4. Physical Therapist
5. Pharmacist
6. Nutritionist
7. Social Worker
8. Pastoral Care

All personnel in the Cardiac Rehabilitation Program should participate in relevant educational programs on safety and infection control and cardiopulmonary resuscitation on an annual basis. It is recommended that
Cardiac team conferences should be held weekly and as needed to discuss patient progress through the rehabilitation program.

Physician of Cardiology (Director)

The physician's role is central, as he or she establishes the diagnosis, prescribes treatment, and oversees follow-up. The physician bears the ultimate responsibility for the quality of patient care and outcome of the treatment program. By virtue of that alone, the physician should be the team leader.\textsuperscript{31} The physician's responsibilities include taking thorough history, performing a physical examination, and reviewing appropriate laboratory test results.\textsuperscript{32} Within the context of the patient's medical and physical status, other team members are called in for further assessments to help develop a treatment plan.

The physician continues to take an active follow-up role, performing interim histories and examinations, monitoring for adverse effects associated with therapies, reviewing all new laboratory data, reviewing the patient's other medical social problems, and making any necessary referrals.\textsuperscript{33}

Cardiac Rehabilitation Coordinator

Individuals chosen to be coordinators of the rehabilitation team should be recognized as such by the other members and their duties clearly specified. Usually an ACLS (Advanced Cardiac Life Support) RN, who functions under the supervision of the Cardiac Director, occupies this role.\textsuperscript{27} Ideally, the coordinator should gradually assume the management functions as the rehabilitation process proceeds. After the professional team members have completed their
work and departed, the patient, family, and significant others remain with the coordinator, who acts as a liaison to assist them. These are the people who will have to live with what has been accomplished. For rehabilitation to succeed, activities performed on behalf of the patient must lead to solutions that can be maintained in the absence of the professional team members.\textsuperscript{27}

The first responsibility of the coordinator is to open communication among the professional team members, making sure all members are aware of changes in the patient's status, keeping everyone headed in the same direction, identifying problems as they arise, and making sure that mechanisms for communication are established and used effectively.\textsuperscript{27} Secondly, the coordinator is responsible for organizing the team members' activities, keeping track of which disciplines are doing what, and who is taking responsibility for which activities. Finally, coordination of additional resources, identifying which disciplines should be added, contacting outside agencies that may be needed, and obtaining supplies of equipment, are duties of the coordinator.\textsuperscript{27}

Another responsibility of coordinator is facilitating the team's function by providing for the encouragement of group support. Team members should support one another, both as individuals and professionals. This will keep communication open and promote feedback. The coordinator should also help the patient and family make appropriate decisions and use resources correctly.\textsuperscript{27}
The coordinator provides an introduction to the Cardiac Rehabilitation Program to the patient/family, explaining to the patient the roles and responsibilities of the professional team members and how these individuals might be used to meet the patient's needs. Also, the coordinator interprets and/or clarifies communications that may appear confusing or contradictory.30

Although the Cardiac Rehabilitation Coordinator assumes a major responsibility, all team members are expected to contribute to the team process and activities.27 These contributions should be offered voluntarily.

Role of Nursing

Of team members, the nurse maintains the most regular contact with the patient and is, thus, pivotal in coordinating care and alerting the physician to problems.33 Nurses help to eliminate potential communication problems by accompanying the physician on rounds as patient care concerns are discussed. This would enable the nurse to reinforce later exactly what the physician intended, allow the physician and nurse to determine what and how much the patient knows, and allow the patient to take advantage of the advocacy role provided by the nurse.34

Nurses must also monitor post-event respiratory status, circulatory status, and the patient's medication treatment program both in the immediate post-operative/post-event period and during the convalescent phase. While less than half of the patients experience complications,34 nurses may wish to use potential nursing assessments related to respiratory and circulatory functioning.
In the teaching program, it is vitally important that the nurse involve the patient's partner or family. Nurses must encourage family member attendance at both formalized cardiac rehabilitation and informal sessions to reinforce teaching. It is recommended that nurses also encourage patients and their families to write down questions and concerns in case they forget these questions when the physician visits.34

Nurses should use every patient encounter as an opportunity to teach or to perform one aspect of the teaching process.35 Items that should be covered in this time frame include cardiac risk factors, anatomy and physiology of the heart, atherosclerosis/coronary artery disease, MI, and what will be experienced before, during, and after surgery/heart attack. The nurse provides instruction about the patient's condition and the expected course of recovery.34 By teaching the skills and knowledge needed by the family, and encouraging questions and answering at a level they understand, nurses have the potential to reduce the fear of the cardiac rehabilitation process.

Role of Physical Therapy

The role of a physical therapist is very beneficial for cardiac rehabilitation. However, the therapist should prescribe a program carefully, being aware of special considerations and particular problems with the patient.

It is recommended that the therapist first decrease anxiety by providing individuals with diversional activities. The physical therapist should also aid in helping the patient and family with the acceptance of the illness and
hospitalization. Once this occurs, instruction in energy-saving techniques and methods of work simplification should be initiated. Initially, the therapist provides a safe, progressive walking program and an exercise plan for upper extremities which will set the stage for later physical fitness training and a progression to outpatient rehabilitation. Other duties of the physical therapist include improving and/or maintaining neuromuscular relaxation, efficient breathing patterns, and during inactivity the patient's venous circulation will need to be improved.

The physical therapist provides continual assessment for pain, dyspnea, fatigue, tachycardia, lightheadedness, change in mentation, or an unsteady gait pattern. If one or more of these complications occur, along with an excessive pulse rate, the therapist is highly encouraged to notify the physician before resuming treatment.

Role of Pharmacy

The pharmacist, in addition to the duties of preparing the patient's prescription, may provide information to the physician in selecting the appropriate medication. The pharmacist should review the patient's other drugs for possible interactions and anticipate any problems that may arise with storage or administration of the medication at home. The pharmacist can also provide information regarding the choice of the appropriate drug delivery system, if necessary.
Other responsibilities of the pharmacist include teaching the patient and family about the medication, educating in proper dosages, times, storage/disposal, and methods in taking the medication. Providing information to the patient about adverse side-effects is also of importance.\textsuperscript{30} Discussion on the proper way and frequency of refilling prescriptions should be addressed by the pharmacist.

Close follow-up and immediate availability by the pharmacist is essential in providing the success and safety of the program.\textsuperscript{33} Continued access of all team members will provide clinical assessment to determine treatment progress, institute necessary modification, and define the duration of the patient's drug therapy rehabilitation.

\textbf{Role of Nutritionist}

During the training in the rehabilitation center, the patient should learn the principles of sound nutrition. This is of importance, not only for the patient, but also for the family. It is documented that the patient will tend to eat more than he/she needs, suffering far more often from over-nutrition than from malnutrition.\textsuperscript{36} However, a patient who is taking large doses of medication may have little or no appetite.\textsuperscript{36}

The rehabilitation nutritionists fulfill a very helpful role. They provide information regarding the dietary risk factors as they relate to cardiac disease and explain the benefits of a prudent nutritious diet. Nutritionists identify foods that are either allowed or are to be avoided, and explain the purpose of the
cardiac diet; for example, diets which are designed to be low in cholesterol, high in fiber, to reduce sodium intake, or are calorie controlled.\textsuperscript{30}

The nutritionist will recommend how to read labels and make appropriate food choices within the cardiac diet parameters. It is another duty of the nutritionist to educate the patient and family in planning balanced menus, using the nutritional principles discussed in the cardiac diet parameters.\textsuperscript{36}

Role of Social Worker

Rehabilitation social workers provide individual, family, and group treatments which facilitate completion of specific tasks and resolution of problems. Social workers' duties include providing education about the nature of the specific impairment and its implications. This can be accomplished through formal teaching settings or conscious use of themselves as models. Social workers engage the patient and family in moving beyond the acknowledgment of disability as a threat and a loss to reframing the experience as a challenge.\textsuperscript{36}

Social workers will recommend discharge planning and will identify high risk patients who have areas of concern and need due to their illness.\textsuperscript{30}

Orienting the patient/family regarding community resources, providing consultation services, information and access to referral services, and interdisciplinary/inter-agency collaboration are additional duties of the social worker.

Social workers provide an introduction between patient/family and the business office; matters concerning their financial status related to the
hospitalization and employment. Social workers assume a major responsibility for an effective environmental transition with a minimal amount of disruption.\textsuperscript{36}

Role of Pastoral Care

Pastoral care provides spiritual care for patients and families coping with the spiritual/emotional effects of heart disease.\textsuperscript{30} The chaplain functions as a member of the cardiac health care team by sharing information, providing support to staff, and serving as a liaison to clergy.\textsuperscript{30}

Other responsibilities of pastoral care are to identify the spiritual strengths and weaknesses of patients and their families in dealing with the grief or loss associated with heart disease and to begin counseling.\textsuperscript{30} Resources that will meet the spiritual needs of patients and families are provided, with consideration for patients' denominational faith groups. Continuity and coordination between pastoral care and the patient, family, clergy, and chaplain are provided.\textsuperscript{30} In addition, the support and counseling are not limited to the patient and family, but are also offered to the team members as needed.
CHAPTER V

EFFECTIVENESS

Whether it is called a team, inter-disciplinary team, or a multi-disciplinary team, it is only worth having if it is effective. Every team member has a responsibility to work in a collaborative and cooperative manner. To achieve this goal, some considerations are necessary for all members, wherever they work. These include: (a) clarification of the team’s existence, purpose, and membership, and the clear identification of its shared aims so that all members are able to work together and (b) the establishment and development of structures to facilitate collaborative work and communication among team members, patients, and professionals outside the team who are affected by its work.

The starting point to the development of an effective team is the identification of a need for a team. Once the need has been identified, disciplines are appointed and the team begins working on an operational plan. This will involve reaching agreement on team values, philosophy, aim, objectives, priorities, role and responsibilities, and working relationships.

An essential component of the cardiac rehabilitation team approach is the effective communication among members of different disciplines. As DeLisa et
al\textsuperscript{39} pointed out, "The key to an effective team is establishing and maintaining intra-team communication." As such, members contribute both content (ideas) and feelings with effective two-way communication.

A lack of consistency, within and across disciplines, in the use of terminology poses a significant barrier to effective communication. In addition to contributing to misunderstanding among rehabilitation professionals, inconsistent use of terminology also causes confusion among patients and family members.\textsuperscript{40} When communicating, care should be taken to define terms operationally and to ensure that vague descriptors (e.g., "moderate") are accompanied by objective data (e.g., percentiles or ratings on standardized functional assessment instruments). Such communication will facilitate continuity of care as patients progress from one level of cardiac rehabilitation to another.\textsuperscript{41}

Team innovation has also been proposed as an important dimension of effectiveness.\textsuperscript{10} Innovation is important because teams are constantly facing changing environments as a result of government initiatives, changes in patterns of health needs, shifting populations, new developments in medicine and health care, and changing expectations of patients.\textsuperscript{10} Other factors influencing whether a team will be innovative include: shared vision/objectives, participative safety, commitment to excellence, and support for innovation.\textsuperscript{42}

Teams with clearly defined and shared objectives, a vision of a higher order goal, and a motivated work force are more likely to be innovative and
effective. Also, more appropriate ways of working together will develop as their efforts will have focus and direction. 42

Participation includes information sharing within the team, regular interaction as team members, and influence over decision making. High levels of participation will facilitate a relatively democratic style of management, where each member’s contribution is acknowledged and valued. No one member should be seen as being more important than another in achieving the corporate objectives of the team. 41 Safety implies that team members will experience the team as supportive, cooperative, and interpersonally non-threatening. 41

A shared concern for excellence of quality of task performance, involving an emphasis on individual and team accountability for setting and monitoring quality standards of performance defines commitment to excellence. 43 It also involves a preparedness to have constructive controversy within the team to achieve the level of service to which the team has made an explicit commitment. 43

Members are encouraged to initiate and develop new ideas and ways of working in a team with strong innovation support. This might involve support for continuing education and professional development to allow all members of the team to develop specialist expertise, contributing to performance of the team as a whole. 41
It must be accepted that conflict among team members and possibly between different teams will exist. Perhaps the single overriding factor interfering with the smooth functioning of an interdisciplinary team is a lack of trust in the professional judgment of members of other disciplines. In large measure, this factor relates to differentials in educational preparation and in knowledge base among the various disciplines. A second issue is a lack of knowledge of, and an unwillingness to learn more about, the educational base, preparation, range of responsibility, capability, and scope of practice of the other disciplines serving on the team.

Indeed, conflict can be productive and creative, if acknowledged. However, conflict becomes destructive when suppressed or ignored. Although it is part of all team's purpose to generate and discuss new ideas and reach decisions, this can be a source of conflict. So this potential must be acknowledged and planned so that conflicts can be resolved before they arise. Developing structures plays an important part in planning team procedures and allows for a smoother production of teamwork, uninterrupted by conflict. Structures should be built from team members' shared values.

Although teamwork of any type appears to have problem areas, many benefits are associated with successful inter-disciplinary teamwork. Adopted in a positive and proactive way, inter-disciplinary teamwork can lead to significant benefits in cardiac care. Some examples would be sharing work, increasing
speed and accuracy of response, increasing available of resources, and
increasing coordination of services.
CHAPTER VI
CONCLUSION

Traditional efforts in cardiac rehabilitation that have emphasized exercise training will be replaced by a more comprehensive approach to secondary prevention in the coronary population. While exercise clearly benefits patients with coronary disease, aggressive treatment of other risk factors improves the prognosis as well. Now, more than even, a effective team approach is needed in order to contend with all of the aspects of cardiac rehabilitation. An effective team consists of good leadership and capable team players.

The process of cardiac rehabilitation begins with risk stratification to identify and treat abnormalities of the cardiovascular system. Once these important prognostic factors are evaluated and treated, secondary prevention measures begin. These include exercise training, smoking cessation and abstinence, nutritional evaluation and treatment, stress management, vocational rehabilitation, and education.

Currently only 15% of all patients eligible for cardiac rehabilitation services enroll in formal cardiac rehabilitation programs, signifying the importance of early teamwork. Formal programs do not yet completely address the comprehensive approach, which are generally supervised by nurses,
exercise physiologists, and other non-physician health professionals. Efforts to provide quality medical care are often associated with frustration and dissension as professionals struggle to comply with all of the necessary requirements. The future of cardiac rehabilitation must include more coordinated efforts between physicians and rehabilitation programs if cardiac rehabilitation is to meet these standards. Systems must be developed whereby all patients with coronary heart disease can benefit from comprehensive programs of secondary prevention that are individually prescribed.

Inter-disciplinary teams of non-physician health professionals, along with the physician, offer the greatest potential for providing the breadth of preventive services necessary to accomplish the goals. Team members must understand and accept each other's roles and come to agreement regarding practice boundaries. Otherwise, role ambiguity will lead directly to territorial and domain disputes since the range or scope of practice of any discipline may easily overlap the boundaries of another.

The number of rehabilitation programs, however, is growing rapidly as a result of specialization and the enthusiasm of nurses and physical therapists. The goal of these programs should be to provide optimum rehabilitation for coronary patients. Not all patients will wish to join such programs, but the benefits to health and long-term survival make it reasonable to persuade as many as possible to do so.
Ultimately, primary and secondary prevention is the most cost-effective means of improving prognosis in coronary heart disease. The future direction in cardiac rehabilitation practice lies in the improvement of an entity that we take too much for granted, the rehabilitation team. The cardiac rehabilitation team must become inter-disciplinary rather than just multi-disciplinary, and thus become greater than the sum of its parts as it produces improved services to patients and their families.
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