Chapter 9

Specialized Psychiatric Services to the Cardiac Surgery Service

Jerald Grobman, M.D., and Eugene Wallsh, M.D.

INTRODUCTION

Patients undergoing cardiac surgery have always had an unusually high incidence of psychological difficulties. Most attention in this area has focused on the incidence, etiology, and management of postcardiotomy delirium and/or psychosis.[1-9] Some authors have suggested that this syndrome could be prevented by the use of a preoperative psychiatric interview.[10,11] Others have studied patients' long-term adjustment to cardiac surgery.[12-17] In a effort to predict patients' postoperative psychological responses, Kimball established personality profiles of those who underwent cardiac surgery.[18,19]

Although there are several reports of the use and benefits of a preoperative psychiatric interview for patients scheduled for cardiac surgery,[20,21] there are no reports of a psychiatrist functioning as an integral part of the cardiac surgical team. For the last three years, one of the authors has been working as the consultation-liaison psychiatrist to the cardiac surgical team at Lenox Hill Hospital. In making the psychiatrist an integral part of this team, the authors hoped to:

- extend the benefits of a preoperative psychiatric interview to as many patients as possible
- more thoroughly investigate the psychological problems and needs of patients undergoing cardiac surgery
- more thoroughly investigate the psychological problems and needs of the staff who take care of these critically ill patients

In the period 1981–1984, more than 500 patients have been evaluated in preoperative interviews at Lenox Hill. Of these 500 patients, more than 50 percent have required some form of postoperative psychiatric intervention.

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This chapter is a report on certain psychological aspects of these patients, the psychiatric interventions that they required, and aspects of the consultation-liaison work with members of the cardiac-surgical team.

THE SETTING

The Cardiothoracic Surgical Service admits adult patients with primary cardiac and/or major thoracic vascular diseases. The majority of patients for surgery are admitted electively. Some patients for surgery are already in the hospital on the medical service.

Emergency surgical cases, both from within and outside the hospital, are also treated. The patients may also be classified as those who have recent-onset illness, those with chronic illnesses, and a small group of acutely, catastrophically ill patients. Each elective patient is offered an opportunity for a preoperative visit to the surgeon's office. However, few patients actually choose to take advantage of this; most seem to prefer initially seeing the surgeon after entering the hospital.

Most patients admitted for cardiac surgery are admitted directly to a surgical unit, which may also have noncardiac surgical patients on its ward. An intensive care unit of five beds is immediately adjacent to the surgical ward of beds for preoperative and postsurgical convalescent patients. These two areas are separated by the main nursing station. The nursing staff responsible for cardiac surgical patients rotate their coverage between pre- and postoperative patients on the main floor and the open-heart intensive care patients.

The entrance area to the cardiac surgical floor contains a family waiting room. This area is separated by approximately 60 feet from the nearest open-heart cardiac surgical patient bed.

This floor layout, together with the nonhierarchical nursing coverage system, leads to the inevitable mixing of newly admitted patients with those in various stages of convalescence from cardiac surgery. Thus, the patients are exposed to all manner of input from previously admitted patients.

Approximately 250 patients per year are referred to the Cardiothoracic Surgical Service. Most are admitted for either coronary bypass surgery or cardiac valvular replacement surgery. Occasionally, patients are also admitted with congenital cardiac problems or major thoracic vascular catastrophies.

Preoperative Protocol

Cardiothoracic service patients are admitted to the hospital approximately 36 hours prior to surgery. At that time, they establish relationships with the

nursing staff and observe and talk to other patients in various stages of recovery. Following the admission, history is taken, physical examination is made by the house staff officer, laboratory bloods are drawn, and x-ray studies are obtained.

Each patient is visited by a floor nurse, who orients the patient to the preoperative protocol. The protocol includes such items as diet, medications, and preoperative surgical preparation. The patient is then seen by a pulmonary therapist and familiarized with the postoperative equipment used to optimize pulmonary function. The patient is also seen preoperatively by a physical therapist who explains the postoperative activity goals and routines. A hospital chaplain from the appropriate religious affiliation is also available, upon request. The patient is then brought to the open-heart recovery room and familiarized briefly with the area. At this time, the patient may or may not encounter a recent postoperative patient.The patient is routinely seen preoperatively by the attending surgeon and anesthesiologist. The members of the staff who see the patient explain their functions on the surgical team and describe their roles in caring for the patient during hospitalization.

When the surgeons feel the patient or family is having difficulty in coping with the scheduled surgery, the patient is referred for a preoperative psychiatric interview. The majority of the patients require this review.

The Preoperative Psychiatric Interview

Each patient referred for psychiatric evaluation is interviewed before surgery. Occasionally, patients scheduled for surgery may be in such emotional distress that several psychotherapy sessions, in addition to the preoperative evaluation, are required. This occurs most commonly when a patient's surgery is postponed one or more days, either because of surgical emergencies or other unforeseen circumstances. The following case illustrates the use of the preoperative interview:

> Mr. B was a 48-year-old man admitted for coronary bypass surgery. In the preoperative interview, he openly discussed how annoyed he was at having been "bumped" from the surgery schedule several times. In addition to the anxiety he felt about his upcoming surgery, he talked about his general problem with anger. In discussing difficulties he had in holding jobs, he responded readily to the psychiatrist's suggestion that he might have problems with authority figures. Without much encouragement, he reviewed how hurt he was by his father's harsh and arbitrary treatment. He was easily able to see how his repeated disagreements with his bosses might be related to his unresolved feelings about his father.

He thanked the psychiatrist, noting that he felt the preoperative interview had been most helpful.

When an unexpected snowstorm prevented the surgeons from coming to the hospital, the patient's surgery once again had to be postponed. He became enraged and threatened to sign out. He agreed to see the psychiatrist. After a highly charged session, in which he was able to ventilate his anger and see that his desire to act out would be counterproductive, he agreed to remain hospitalized and approached surgery with much less anger. His surgery and postoperative course were uneventful.

The preoperative interview lasts from 45 to 60 minutes. When clinically appropriate and logistically possible, the patient's family and/or friends may be included in the last 10 to 15 minutes. The interview has both diagnostic and therapeutic purposes. Under ideal conditions, the interview is conducted in a rather structured manner. The patients are asked to review their present illness and past medical history. Events leading to the need for cardiac catheterization and the recommendation for surgery are reviewed. Throughout the interview, the patients are encouraged to express their feelings about their illness, its effect on them and their families, and their attitudes about the necessity for surgery.

Confused and angry patients need the preoperative and postoperative psychiatric interviews more than other patients. Unfortunately, these patients are the most offended by the recommendation for a preoperative psychiatric interview. However, if the psychiatrist can empathize with the patients' confusion and help them clarify and ventilate their feelings, the psychiatrist can help these patients establish a working alliance with him and the entire surgical team.

Patients are encouraged to ask questions and make specific requests regarding their own management. Patients frequently express different views regarding the management of pain, the need for explanations and information, and fears of being controlled or manipulated by the staff. Nowadays, many patients are well-informed about the technical and emotional aspects of cardiac surgery. For example, several patients have asked about the reported high incidence of postoperative depression. They seem reassured that a psychiatrist is available, should this emotional complication occur.

After the completion of the evaluation interview, the psychiatrist writes an extensive, detailed consultation note in the medical chart. Consultation notes that use anecdotal, that is, specific historical material, are much more effective in the surgical-medical setting than notes that use descriptive

(interpretive) and diagnostic psychiatric jargon. The consultation note outlines relevant aspects of the patient's medical and personal history and describes how the patient and family both understand and have been affected by the patient's illness and the need for surgery. It presents any initial conceptualizations of the patient's and family's psychodynamics and includes an assessment of their ego strengths and weaknesses. These formulations alert the other team members to potential pre- and postoperative emotional trouble spots. Specific recommendations regarding the type and extent of preoperative education that is appropriate for the patient are provided. Whenever possible, these findings are conveyed to the staff in person.

The Psychiatrist's Postoperative Role

In the surgical ICU, the psychiatrist manages all cases of postoperative delirium and psychosis. When patients leave the ICU, the psychiatrist follows them for more subtle signs of emotional disturbance. The psychiatrist may be asked to intervene in some cases; in others, the psychiatrist may suggest the intervention. In addition, patients or their families may request psychological help. The psychiatrist may be asked by any member of the surgical team for advice and suggestions to improve their management of certain patients or of their own personal, emotional responses to patients or families. The psychiatrist frequently offers suggestions to the staff for the psychological management of patients—both those the psychiatrist sees and those who refuse the interview.

PSYCHOLOGICAL DYNAMICS

The Patients

Postoperative psychosis and delirium are the most dramatic and closely studied psychological problems encountered by cardiac surgical patients. We agree with the general strategy that has been developed to manage these patients (the use of Haldol and a supportive psychotherapeutic relationship). However, it is our strong impression that the use of a preoperative psychiatric interview reduces the incidence of postoperative psychosis and delirium. In addition to managing the psychotic, delirious patient, the psychiatrist helps family members of these patients. Indeed, without adequate intervention, distraught family members can seriously disrupt the workings of the cardiac service.

Kimball outlined three phases of emotional and physical recovery from cardiac surgery. In addition, he described the use of systematic preoperative

psychological interviews to identify the patient's general style of life adjustment, anxiety regarding surgery, and orientation toward the future. From this information, he developed four groups of patients (adjusted, symbiotic, anxious, and depressed) and attempted to correlate specific types of postoperative response.[22,23] We have found this scheme to be a valuable starting point in understanding how to help patients with their psychological responses to cardiac surgery.

In working closely with such patients, we have discovered several other important aspects of their psychological dynamics. Patients clearly bring an individual characterologic style to the experience of surgery, and this colors their emotional responses to it. However, they also come to surgery in a unique emotional context. Many times, they are in the midst of acute, subacute, or chronic unresolved emotional conflicts. These individual emotional conflicts influence their psychological approaches to surgery and postoperative course; in fact, the patients may find these emotional issues more troublesome than the surgery itself. When such issues, as well as those specifically related to surgery, are addressed by the psychiatrist in the preoperative interview, the patient approaches surgery in a calmer, more secure fashion.

Loss is the major unresolved emotional issue that these patients struggle with at the time of surgery. Usually, the loss is that of a spouse, parent, income, or job. Most patients deny the emotional importance of their loss yet show clear manifestations of its unresolved nature. The following case is a dramatic example of this condition.

> A 62-year-old man's wife had died eight years prior to the man's surgery. Shortly after her death, he threw himself into his work with even more intensity than he had before. Within a year, he developed angina symptoms and was managed medically. Seven years later, when his symptoms could no longer be contained medically, he was referred for coronary bypass surgery. In the preoperative interview he was able to review, in an unemotional fashion, all the medical events leading to his need for surgery. When he began to discuss his personal life, he started to weep uncontrollably as he described his wife's death and his subsequent loneliness and guilt. He was more relaxed after the interview but denied that his wife's death still troubled him.

Some patients are able to address their emotional problems at the time of surgery, as in the following case.

> A 28-year-old man seemed to approach mitral valve replacement in a calm and settled way. However, in the preoperative interview he

openly shared with the psychiatrist how much he had hoped to put off the surgery until he was able to come to terms with the emotional impact of the recent death of both his parents. Having been estranged from them for many years, he felt guilty that he had not done more for them before their deaths. In fact, he began to cry when he shared his feeling that he did not deserve to survive his surgery. He felt that at least being able to discuss this conflict with someone enabled him to face surgery in a "better frame of mind."

Frequently, a patient's feelings about unresolved issues will get acted out in inappropriate behavior during the postop course, as in the following case.

A 58-year-old woman approached mitral valve surgery in a state of "complete calm and security," since she had the "most complete sense of confidence and faith in [her] doctors." However, in the preoperative interview, she expressed how guilty she still felt about her mother's death ten years earlier. She felt she still had to cry about it but could not bring herself to do this, as her friends and husband kept telling her she was "ridiculous."

She asked if she were crazy because she still felt a need to cry. She requested further sessions with the psychiatrist after surgery to further explore this. During the early stages of her postoperative course, she was attempting too much activity too soon and refused to ask for help when she needed it. The staff was concerned that she might injure herself. After several psychotherapy sessions in which she continued to cry about her mother's death, her postoperative activity level became more phase-appropriate, and she was more easily able to accept assistance from staff members.

In addition to important unresolved emotional issues, patients bring a particular adaptational style to surgery. This style clearly influences how they psychologically approach and manage their surgery. However, we have found that Kimball's four general adjustment styles (adjusted, symbiotic, anxious, depressed) are not specific enough, either in understanding each patient's individual psychological response to surgery or in designing plans for psychological intervention and management. Rather, we have found that the psychiatrist needs to do a thorough dynamic formulation of each patient's defense mechanisms, coping mechanisms, and object relationships. Once this is accomplished in the preoperative interview, the psychiatrist can more fully understand the nature of the patient's inevitable psychological regression, can more clearly communicate this to staff and family members, and can then design specific ways for intervening to help the patient cope with the trauma of surgery. The following case illustrates this approach.

Mr. B was a 54-year-old man who drove a delivery truck for all of his employed life. He was a reclusive man who enjoyed his solitary job. His greatest pleasure in life was maintaining his modest weekend home. He spoke lovingly in the preoperative interview of chopping wood and sitting by the fire, watching the flames. His wife was a lively, engaging person who was always prodding him to be more social. His overriding memory of childhood was that his parents rarely spoke to him.

Shortly after he was fired from his job, he developed anginal symptoms. These became medically unmanageable, and he was recommended for coronary bypass surgery. Several days after he left the ICU he became mute. He would lie in bed for hours at a time, staring at the ceiling or with his face in the pillow. He refused to eat or participate in the rehabilitation program. His wife and daughters became panic-stricken with the thought that he was going crazy. The medical and nursing staff thought he might have had a stroke. After several psychotherapy sessions in which the psychiatrist conveyed an understanding of the patient's need to withdraw, his becoming upset about his job, and the trauma of surgery, the patient slowly became more communicative, acknowledged the presence of his family, and resumed his rehabilitation activities.

During this period, the psychiatrist needed to have several supportive sessions with the patient's wife and daughter. These sessions helped them understand that withdrawal appeared to be the patient's only way of coping with surgery and that his behavior was most likely temporary. Because their anxiety was contained, they did not distract the nurses or surgeons from attending to much sicker patients.

The Staff

The Cardiothoracic Surgical Service is a busy one. Frequently, all five beds in the ICU are filled. The atmosphere is tense; the nurses are hyperalert and constantly watching for problems that might arise. This vigilant attitude is especially noticeable in the ICU, where the condition of any of the unit patients may deteriorate at any moment. Knowing this, the nurses in the unit carefully and continuously watch and maintain the many monitoring devices and intravenous lines. It is difficult for them to engage in conversation for prolonged periods of time.

On the floor, the atmosphere is somewhat less tense. But, here too, nurses and rehabilitation personnel busily monitor and treat a large number of

patients. Staff members pride themselves on their knowledge, efficiency, and success in working with such high-risk, critically ill patients.

In this setting, how does the psychiatrist establish and maintain a working alliance with medical, nursing, and rehabilitation personnel? Initially, the psychiatrist's main task is to allay the staff's anxiety about the psychiatrist's role. Most staff members have had limited contact with this type of professional and may be quite fearful that the psychiatrist will read their minds, analyze them, or criticize their interactions with each other. The psychiatrist must clearly establish that there is no hidden agenda in this regard.

Most staff members recognize the importance of psychological factors in the development of cardiac disease and of the psychological complications associated with cardiac surgery. However, most staff members have had limited training in psychological assessment and treatment. Despite this, they do their best to understand each patient's psychological needs and to manage their complicated emotional responses to surgery. Still when the psychiatrist arrives, the staff members may become concerned that their work in this area will be scrutinized in a harsh and critical way by "the expert." Their anxieties on this score must be allayed before the psychiatrist can be fully integrated into the team.

Another way the psychiatrist achieves and maintains a working alliance is by establishing a clear and structured role as a member of the team. There are three important aspects to this:

1. taking primary responsibility for the treatment and management of patients' psychological problems
2. teaching staff about patients' psychological responses and needs
3. being available in a supportive role to help the staff as a whole deal with problems of morale

Taking Primary Responsibility for Treatment and Management of Patients' Psychological Problems

Because of tremendous service pressures, staff cannot be expected to learn the complex skills required for the in-depth treatment of patients with psychological problems. By accepting responsibility for patients' psychological treatment, the psychiatrist reduces staff anxiety to the point where staff no longer need to deny or avoid patients' blatant or subtle psychological problems and can appropriately refer them for treatment. When staff anxiety has been reduced to workable levels, staff members can more easily understand and implement management suggestions.

The psychiatrist establishes a direct physician-patient relationship with each patient and intervenes using psychotherapeutic and, when appropriate,

psychopharmacologic approaches. Because couples or family sessions are often indicated, the psychiatrist must be flexible. Occasionally, patients and families refuse to be involved with a psychiatrist. In these situations, the psychiatrist must act as supervisor to the staff members who manage the patients and families.

Educating Staff about Patients' Psychological Needs

In dealing with patients' psychological problems medical and nursing staff are more interested in simple, practical management solutions than in theoretical explanations. In this situation acting as a psychological interpreter, the psychiatrist can explain the meaning of each patient's psychological symptoms and how to treat them. In the authors' more than three years of work in this setting, it has become clear that the use of even the most elementary psychiatric terminology can be confusing and therefore anxiety-provoking to staff members. Theoretical concepts regarding a patient's character structure, ego strengths and weaknesses, defensive structure, and regression must be explained in language that can be easily understood. At times, staff members may express interest in learning more about a patient's psychological make-up. By and large, however, the psychiatrist must keep in mind that psychological theory and treatment approaches are not primary areas of interest for most staff members.

After the psychiatrist has established a strong working alliance with staff, the staff members may request help, not only with management issues, but also with their own emotional responses to certain patients. Frequently, these emotional responses are more troublesome than management issues. They should thus be approached in an instructional, educational manner, rather than in an exploratory, questioning one; questions like, "Why do you think you are feeling this way," make staff members much too anxious. In this way the psychiatrist can help staff members understand why certain patients are so provocative.

We have found five types of patients to be the most emotionally provocative for staff. The psychiatrist must be especially alert to patients with these character styles and help staff to anticipate the ways in which these patients regress psychologically and to understand the feelings that such patients invariably stimulate:

1. suspicious, paranoid patients who externalize, blame, and reject staff members
2. obsessional patients who need to be in control and require endless explanations and reassurance

3. manipulative patients who pit one staff member against another, hoping to get "more" for themselves
4. passive dependent patients who need a great deal of support, want to know as little as possible about their surgery, and leave their care up to others
5. self-destructive patients who, after surgery, seemingly flaunt their bad habits in front of the staff

Patients in the last category provoke the most intense emotional responses. In these cases staff members have great difficulty dealing with their own sense of failure, helplessness, inadequacy, anger, and guilt; they feel emotionally so out of control. The following case illustrates well staff difficulties with a self-destructive patient.

> Emergency surgery was performed on a 32-year-old lawyer when it was discovered that his progressive heart failure was due to mycotic infections of two heart valves, incurred from "shooting up" cocaine. Postoperatively, he was comatose for one week, then became delirious and agitated. Neurologic evaluation revealed the presence of several brain abscesses. Appropriate antibiotic therapy was started.
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> During his prolonged stay in the intensive care unit, the patient required a great deal of attention from all support staff. His delirium began to clear, and he made slow but steady progress. It became apparent that he was an articulate, intelligent, highly successful man who was well-regarded in his profession. As his miraculous recovery continued, nursing and medical staff were delighted and gratified. Everyone had become quite fond of him.
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> When the patient was transferred to the area floor and feeling stronger, he began begging nurses to get cigarettes for him. He started to disregard his dietary and exercise restrictions. He manipulated individual staff members in order to get more than prescribed pain medication. Some staff members attempted to reason with him about the use of cigarettes and the need for a special diet, as well as a gradual increase in physical activity. Others attempted to be firm with him. All efforts that staff made to help him care for himself were rebuffed.
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> Because of this obvious self-destructive behavior, the patient was referred to the psychiatrist. In psychotherapy sessions, he revealed that all of his family members had a history of violence and self-destructive behavior. Recently his father had attempted suicide. One of his memories from age 12 was of being chased by his

grandfather with a power lawnmower. His grandfather subsequently shot his pet rabbit.

Although the patient initially appeared to make appropriate use of psychotherapy sessions, he abruptly refused further treatment. Despite his steady progress, he continued to be self-destructive and even more provocative. He responded only to firm, consistent limit-setting of his manipulative behavior regarding pain medication.

The emotional responses the patient provoked ranged from sorrow and pity to rage, horror, and disgust. He caused tremendous turmoil on the floor. Several staff members appealed to the psychiatrist for help in dealing with their feelings. In several group meetings, nurses shared and expressed their intense frustration and hurt at having their heroic efforts rejected and devalued. In addition to facilitating the group process so that the nurses could ventilate their feelings, the psychiatrist shared examples from his own clinical practice and used selected journal articles to help the nurses understand and manage their own emotional responses.[24,25]

Helping Staff Deal with Problems of Morale

In the care of patients with psychological problems, maintaining morale is an area of ongoing concern and attention. Because the work requires intense vigilance and an involvement with considerable technical machinery, nurses may come to feel dehumanized, to feel they are being forced to treat their patients in a dehumanized way. In such situations, especially when the service is busy, staff feel better when they can share the emotional burden of their workload. They also feel better when they know their patients' emotional needs have not been forgotten in the crush of an exhausting and at times numbing work schedule.

In this setting, the psychiatrist becomes the guardian of the humanitarian interests of patients, staff, and the cardiac service as a whole. The psychiatrist's rounds are especially appreciated by staff members; in these rounds, they are able to take a brief break from their vigilance of patients, pills, and machines and have a moment of human interaction.

Two situations invariably lead to crises in staff morale: (1) deaths that occur in close proximity and (2) patients who have severe complications and become chronic custodial problems. In these cases, the psychiatrist may suggest or may be asked to lead group sessions to help nursing staff deal with their feelings of inadequacy, failure, and anger. The psychiatrist functions best in this setting when acting as an educator and facilitator of group process, rather than as a therapist encouraging deep personal exploration.

SUMMARY

Patients bring a particular character style to the experience of cardiac surgery; they also approach surgery in a very personal emotional context. In the authors' experience, in a great many patients the emotional context appears to involve unresolved issues of one or more types of loss. However if the psychiatrist adequately addresses these issues of loss, as well as those anxieties specifically related to surgery, patients have fewer pre- and post-operative difficulties.

As an integral member of the surgical team, the psychiatrist is in a unique position to understand the overall dynamics of the service and in particular the different needs of the staff. In the busy, tense environment of the cardiac service, the staff's primary interest must be the physical welfare of their patients. Yet, although the staff recognize the serious emotional consequences of cardiac surgery, they rarely have the skill or the time to manage them.

In this critical care setting, the psychiatrist functions best when he takes primary responsibility for the treatment and management of patients' emotional problems precipitated by surgery. The psychiatrist establishes a primary physician-patient relationship with each patient and enlists the staff in implementing a practical, workable management protocol. In working with the staff, the psychiatrist should use a minimum of psychiatric jargon and theory.

Because of the unique nature of the cardiac surgical service, in addition to ongoing problems of staff morale, there are particular problems precipitated by certain situations. Among these are a series of deaths and patients who become chronic. The psychiatrist who is integrated into the team is more likely to be asked for help with these problems. Using a knowledge of group process, the psychiatrist can thereby be helpful to the team as a whole and contribute to its smooth functioning.

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Jerald Grobman, Adjunct Attending Psychiatrist and Psychiatric Consultant to the Cardiovascular Surgical Service, Lenox Hill Hospital, New York; formerly Associate Clinical Professor, Tufts University School of Medicine, Boston; and Assistant Psychiatrist and Director of Group Psychotherapy Training, Tufts-New England Medical Center Hospital, Department of Psychiatry, Boston