Psycho-Social Problems of Coronary Care Unit Patients*

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INTRODUCTION AND PURPOSE

THE coronary care unit is now well established as the optimal location for the care of patients with acute myocardial infarction. While there are many studies documenting the electrophysical and hemodynamic problems of patients under care in such units, there have been few studies of the emotional, financial and social problems of such patients as they may affect prognosis.[1-5] The study reported here was undertaken to determine the feasibility of tabulating these problems without added risk to the patients, and to determine what steps might be initiated to reduce the emotional stress associated with them.

In addition a careful follow-up was undertaken to compare the period of acute illness with the convalescent and follow-up periods and to denote the long-term effects of efforts initiated during the acute period to alleviate the problems documented.

METHODS

Study Population. The study population consisted of 77 patients who were admitted to a four-bed coronary care unit at the Los Angeles County-University of Southern California Medical Center between June, 1967, and December, 1968, for treatment of myocardial infarction. A medical social worker with experience in dealing with acutely ill patients assisted the usual physician-nurse team and recorded the observations tabulated here.

The average age of the patients in this study was 55 years with 81 per cent of the patients between the ages of 40 and 70. Twenty of the 77 patients were women and of these 11 were housewives. Thirty-six of the patients were employed prior to their admission to the coronary care unit; 20 of the 36 had been engaged in manual labor. Eight of the patients were retired, 15 disabled and seven considered themselves unemployed.

Less than 10 per cent of the patients had any education after high school, and about 40 per cent received only an elementary school education. Only one patient had income over $10,000 annually. Forty-nine per cent of the patients were married while 42 per cent of them were either divorced (13 per cent), widowed (21 per cent), or separated (8 per cent). Nine per cent were unmarried.

Study Methods. The study approach was observational and exploratory. In the process of offering service to the patient and family, all patients were interviewed by the medical social worker in the coronary care unit, and at intervals during one year post admission. Family members or other significant persons in the patient's life were interviewed whenever possible. Observations and information gathered by other coronary care unit staff members were obtained. Data gathered from these sources was formally recorded on a standard questionnaire during coronary care unit stay, and at intervals of six weeks, three months, six months and one year. Problems were recorded only if they were verbalized by the patient or specific patient behavior was noted either by the medical social worker and coronary care unit staff or by the family. For example, it could be assumed that all patients experience anxiety regarding their medical condition, however, this was recorded as a problem only if the staff observed what they believed to be excessive anxious behavior, or if the patient

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verbalized this concern. A problem was also recorded if the staff judged it to be either a source of a patient's inability to accept and act upon medical recommendations or a potential inhibitor to recovery and rehabilitation.

Medications such as sedatives were given as indicated by the patient's condition as based on an existing protocol. In some patients such therapy may well have suppressed or controlled anxiety, for instance, so that it became less obvious. However, heavy sedation was unusual and no examples of exascerbation of social problems by medication were recognized.

Follow-up contacts in the patient's home and the outpatient clinic enhanced reliability of initial coronary care unit observations as did regular consultations among coronary care unit staff members. During these follow-up interviews, ongoing or new problems were recorded; in addition what had happened to the patient (disposition) at the end of each interval was recorded. For example, if as described by the patient and evaluated by the social worker, the patient had returned to his level of social and psychological functioning of that prior to admission, this was recorded. In the data gathering process a profile of the patient was recorded, namely such characteristics as age, marital status, living arrangements, employment, education, quality of interpersonal relationships, group activities and coping mechanism.

RESULTS

Only three of the 77 patients interviewed died while in the coronary care unit; while 14 of 73 had expired by the end of the year. (Four patients were lost to follow-up). The results documented by the study are based on interviews with those patients that were alive and locatable at each of the designated time periods. For example, the data in the coronary care unit is based on 77 patients while the results at six months are based on 64 patients.

1. The patient in the coronary unit does experience identifiable psycho-social problems. Anxiety regarding his or her medical condition was expressed by the greatest number of patients (56 per cent) (43 of 77). Fear of disability was the next most frequently observed problem (38 per cent) (29 of 77), expressed by patients as fear of loss of independence, inability to work, or to fully function in the male role within the family. Immediate cessation of income and concern about payment of medical expenses were seen as acute social problems by over one-third of the patients (36 per cent) (28 of 77). Fear of death, concern about possible loss of employment and anxiety about his family's welfare were expressed as immediate problems by just under one-third of the patients. Eighteen patients (23 per cent) showed clinical signs of depression in the unit.

2. A large majority of the patients who survived the first year returned to their previous (prior to coronary care unit admission) level of functioning and returned to regular employment. At the end of three months (27 per cent) (18 of 67) of the surviving patients had returned to their previous level of functioning; the figure increased to (68 per cent) (40 of 61) by the end of the year. At three months (17 per cent) (6 of 32) of those employed prior to admission had returned to work, (76 per cent) (23 of 30) had returned at the end of one year. The majority of those not returning to employment were not given a medical release to do so.

3. The study revealed that major social classification variables such as age, marital status, education, and employment have no statistically significant effect on whether the patient lived or died. Specific social and psychological states were found to be highly significant in terms of their association with the patient's successful recovery. These are listed in Table I. Those patients experiencing maladaptive family relationships more frequently died than those having adaptive relationships. Patients experiencing many psycho-social problems in the cornary care unit represented a significant number of those who died. Of these a large number were middle-aged patients with dependents. Patients described as having previously functioned poorly accounted for the majority of those referred for long-term psychiatric therapy. It is important to note that this latter group did not die more frequently than the norm. At six months, nine per cent of the patients or family were observed to be making an unhealthy adaptation to the illness.

Patients observed in the coronary care unit to be in a state or depression or who were notably pessimistic about their future represented a signficant number of those patients who died (Table I). Another psychological variable found to be significant in the patient group that died post-coronary

TABLE 1.—SOCIAL AND PSYCHOLOGICAL STATES ASSOCIATED WITH SUCCESSFUL RECOVERY

Variable	*Hypothesis*	*Conclusion*
1. Problems in CCU	Those dying during the first year post-admission have more psycho-social problems.	$p = .05$
2. Problems in CCU	Middle-aged patients with dependents have more psycho-social problems in the coronary care unit.	$p = .05$
3. Pessimism	Patients who died were more likely to be pessimistic in the coronary care unit.	$p = .01$
4. Depression	Patients that died were more likely to be depressed in the coronary care unit.	$p = .001$
5. Previous poor functioning stressed	Patients who showed previous poor functioning had more problems in the coronary care unit.	$p = .05$
6. Effect of relationship	Patients having maladaptive relationships during the year were more likely to die than those experiencing either adaptive or non-discernable relationships.	$p = .05$
7. Perception of illness	Patients perceiving illness as a disability during the year were more likely to die than those patients perceiving illness as a handicap.	$p = .001$
8. Previous poor functioning stressed	Patients with previous poor functioning were more likely to make unhealthy adaptations.	$p = .05$

* All hypothesis accepted.

care unit admission was the patient's perception of his illness as a disability (i.e. total disability, no possibility of returning to previous level of functioning) as opposed to those who perceived of themselves as handicapped (ie. with appropriate modification able to return to previous levels of functioning).

When patients were grouped by age in decades no specific problems were age related, although the rank order of problems changed. Concern over financial problems were observed less frequently in older patients and depression became the third ranked problem, although no more frequent by percentage than in other age groups.

4. Although no attempt was made to specifically include this as a variable, both the staff physicians and nurses and the patients accepted the social worker as an integral member of the coronary care unit team, making data collection possible and enabling the social worker to make an effective treatment plan for alleviation of patient problems.

5. Patient acceptance of the coronary care unit was not specifically evaluated or recorded for each patient. In general most patients liked the unit and appreciated the total care given.

DISCUSSION

This study clearly documents that the patient while in the coronary care unit has much anxiety about his future and that of his family. His concern about his medical condition is not so all absorbing as to preclude his experiencing many psycho-social problems. These problems are related to the medical crisis and the patient's pre-hospitalization physical, emotion and social condition. It is possible to delineate realistic and specific patient anxieties and needs that arise in the coronary care unit. During the study the social worker actively aided and encouraged the patient to express problems related to his family, job and future life.

We also found the patient to be capable of responding to emotional support and appropriate psycho-social intervention during the acute phase of illness. This may, in part, be explained by the unique features of the coronary care unit. During the coronary care unit stay, the patient is usually alert and communicative. He often feels better very soon after admission and is aware that he is receiving special care and is generally reassured by this. However, he must remain in bed or in a chair and is always connected to the monitor continually reminding him of the critical nature of his illness. His perception is usually not severely dulled by medications, and he has much uninterrupted time to think.

The staff's experience suggests that appropriate psycho-social intervention in a coronary care unit should be in close alignment with coronary care unit physical care. Emphasis should be placed upon alleviation of immediate anxieties and social problems. The focus of this activity should be on the prevention of acute social and psychological prob-

lems from becoming chronic. The patient should be encouraged and helped to express his feelings and fears. An effort should be made to prevent the patient from feeling confused, alone, or without social resources to meet immediate and future rehabilitation needs. The patient should be given information, realistic help and support of his usual problem-solving mechanisms.

A relationship of trust and rapport is easily developed with the patient in the coronary care unit, which aids and speeds staff's efforts to help the patient with future problems.

A good overall prognosis was documented. The results suggest that dealing with psycho-social problems, along with the patient's physical problems in the coronary unit, and during follow-up may aid in preventing unnecessary disability and may decrease morbidity. In addition evaluation of the total patient and detection of problems while the patient is in the coronary care unit aids the staff in identifying patients who may experience difficulty during their post coronary care unit course. Our experience clearly delineated an important role for the medical social worker on the coronary care unit team. Ready acceptance of the medical social worker on the part of the existing team made the study possible and also enabled the social worker to provide needed services to patients from acute care through rehabilitation. A similar experience has been reported by Ezra.[2]

The question can legitimately be raised as to whether the findings reported here are unique for patients with acute myocardial infarction or are common to all acute illnesses. While no evidence was obtained to underscore such uniqueness, the importance of acute myocardial infarction as a cause of death and disability dictates the need to obtain as much information as possible about factors that may be fundamentally a part of the clinical problem presented.

Hackett, et al. found denial an important aspect of patient's adjustment to the coronary care unit.[4] We raised the question whether our patients' concern about immediate and real social problems is a mechanism in a denial process which patients experience while faced with the possibility of sudden death. Our experience suggests that dealing with these problems appropriately assists the patient in making an optimal recovery and does not result in overt denial, i.e., failure to follow medical recommendations.

Finally, it is recognized that this report concerns patients in a particular socio-economic setting and the results may not be directly applicable to patients in a different setting, but such comparisons would be interesting. The large number of patients who are potential candidates for this acute illness who are comparable in socio-economic status to those reported herein underscore the potential direct applicability of these findings.

SUMMARY

Seventy-seven patients who were admitted to a coronary care unit for acute myocardial infarction were studied to determine the incidence of social, emotional and economic problems. Ages were widely distributed but all were in the lower income bracket. Patients exhibited fear and concern over immediate health (56 per cent), possibility of disability (38 per cent), loss of income and employment (36 per cent), and (23 per cent) showed gross evidence of depression. Most patients who survived regained their previous health and employment status. Inter-relationships between prognosis, behavior, perception and depression were observed. This experience suggests that these problems may be dealt with realistically while the patient is in the coronary care unit.

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