1953

Problems in the rehabilitation of seventy-two World War II tuberculous veterans at Cushing Veterans' Administration Hospital, Framingham, Massachusetts.

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Boston University
PROBLEMS IN THE REHABILITATION OF
SEVENTY-TWO WORLD WAR II TUBERCULOUS VETERANS AT CUSHING
VETERANS' ADMINISTRATION HOSPITAL
FRAMINGHAM, MASSACHUSETTS

A THESIS

SUBMITTED BY
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(B.S., HOLY CROSS COLLEGE, 1951)
In Partial Fulfillment of Requirements for
the Degree of Master of Science in Social Service
1953
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Purpose</td>
<td>1</td>
</tr>
<tr>
<td>Scope</td>
<td>2</td>
</tr>
<tr>
<td>Sources of Data</td>
<td>2</td>
</tr>
<tr>
<td>Method</td>
<td>3</td>
</tr>
<tr>
<td>Limitations</td>
<td>3</td>
</tr>
<tr>
<td>II SOME THOUGHTS ABOUT TUBERCULOSIS</td>
<td>4</td>
</tr>
<tr>
<td>Background Data on Tuberculosis</td>
<td>4</td>
</tr>
<tr>
<td>Medical Aspects of Tuberculosis</td>
<td>6</td>
</tr>
<tr>
<td>Emotional and Social Aspects of Tuberculosis</td>
<td>7</td>
</tr>
<tr>
<td>Rehabilitation of the Tuberculous</td>
<td>11</td>
</tr>
<tr>
<td>III SETTING</td>
<td>16</td>
</tr>
<tr>
<td>Facts About Cushing Veterans' Administration Hospital</td>
<td>16</td>
</tr>
<tr>
<td>Tuberculosis Service</td>
<td>16</td>
</tr>
<tr>
<td>Physical Medicine Rehabilitation Service</td>
<td>17</td>
</tr>
<tr>
<td>Social Service</td>
<td>18</td>
</tr>
<tr>
<td>IV INTEGRATIVE SERVICES IN THE REHABILITATION PROCESS</td>
<td>20</td>
</tr>
<tr>
<td>Tuberculosis Service</td>
<td>20</td>
</tr>
<tr>
<td>Social Service</td>
<td>37</td>
</tr>
<tr>
<td>Physical Medicine Rehabilitation Service</td>
<td>39</td>
</tr>
<tr>
<td>V CASE STUDIES</td>
<td>42</td>
</tr>
<tr>
<td>VI SUMMARY AND CONCLUSIONS</td>
<td>56</td>
</tr>
<tr>
<td>APPENDIX</td>
<td></td>
</tr>
<tr>
<td>GLOSSARY</td>
<td>63</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>66</td>
</tr>
<tr>
<td>NUMBER</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>I</td>
<td>Stage of the Disease at Time of Admission to the Tuberculosis Service</td>
</tr>
<tr>
<td>II</td>
<td>Distribution of Medical Treatment by Stage of the Disease</td>
</tr>
<tr>
<td>III</td>
<td>Types of Surgery by Advanced Stages of Tuberculosis</td>
</tr>
<tr>
<td>IV</td>
<td>Stage of the Disease and Activity at Discharge</td>
</tr>
<tr>
<td>V</td>
<td>Stage of the Disease and Reasons for Discharge</td>
</tr>
<tr>
<td>VI</td>
<td>Length of Time in the Tuberculosis Service and Stage of the Disease</td>
</tr>
<tr>
<td>VII</td>
<td>Reasons for Irregular Discharges</td>
</tr>
<tr>
<td>VIII</td>
<td>Other Ailments or Handicaps Suffered by the Patients</td>
</tr>
<tr>
<td>IX</td>
<td>Sources of Referral to Social Service</td>
</tr>
<tr>
<td>X</td>
<td>Lapse of Time Between Admission to the Tuberculosis Service and Referral to Social Service</td>
</tr>
<tr>
<td>XI</td>
<td>Nature of Social Services Rendered</td>
</tr>
<tr>
<td>XII</td>
<td>Physical Medicine Services Rendered</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

Purpose of the Study

The total rehabilitation of tuberculous patients implies helping them physically, emotionally, and vocationally. It means a return to maximum personal wholeness and a return to economic security. This is the goal of Cushing Veterans' Administration Hospital.

Yet, due primarily to the unpredictability of human beings, any program of rehabilitation, no matter how well organized and carried out, is inevitably faced with problems which vitiate it; and make it less effective.

The purpose of this paper is to determine and study the rehabilitation problems as they are to exist at Cushing Veterans' Administration Hospital Tuberculosis Service.

The writer poses the following questions:
(1) What problems were confronted in treatment of these patients?
(2) What was the role of the Tuberculosis Service, the Social Service, and the Physical Medicine Rehabilitation Service in the rehabilitation process.
(3) What were the factors which hindered this rehabilitation process.

Scope of the Study

From January 1, 1948 to December 31, 1951 a total of 156 tuberculous veteran-patients became known to the Social Department of Cushing Veterans' Administration Hospital. Out of this number, the case records of seventy-two patients were selected. They include only World War II veterans with pulmonary tuberculosis, none of whom were in the hospital at the time of the study.

Sources of Data

All of the social data were gathered from the agency's social case records. The process recordings were used except in those cases where copies of the social summaries were available and served our purposes. Many of the records contained medical summaries; these proved adequate, and were used. Those records without medical summaries necessitated the gathering of medical data from the stored clinical records of the patients.

All of the data concerning physical medicine were gathered from the Physical Medicine Rehabilitation Service records.

A glossary of terms is included in the appendix.
Method of Gathering Data

The data from the cases in this study were evaluated by means of analysis sheets.

From the individual case statistics, quantitative tables were compiled. Most of these tables will be found herein.

Limitations of the Study

This study is limited by its reliance on recorded material which may not necessarily give the whole picture of the cases as they actually were. Thus, also, it is open to subjectivity, especially is this so of the social material.
CHAPTER II
SOME THOUGHTS ABOUT TUBERCULOSIS

Background Data on Tuberculosis

Tuberculosis is one of the earliest known diseases. Evidences of tuberculosis have been found in the bones of Egyptian mummies. Hippocrates, the Father of Medicine, accurately described the disease four hundred years before the birth of Christ. It was Robert Koch, a German bacteriologist, who, in 1881, proved conclusively that tuberculosis was caused by a microscopic living germ called tubercle bacillus.

Tuberculosis is largely a chronic, recurring disease involving many systems of the body. It is almost symptomless at the start. It may go undetected for a long time until it has reached an advanced stage, and, frequently, after it has been communicated to others. The earlier the disease is discovered the greater are the chances for an early recovery. In fact, discovered early, tuberculosis is one of the most curable diseases.\(^1\) Case finding through mass X-rays is the most important weapon in the tuberculosis battle. It is a battle which is being

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\(^1\) Arnold Shamaskin, Waging War Against Tuberculosis, p. 5.
won slowly.

In the United States, tuberculosis has moved from the second most frequent cause of death in 1900, to the seventh today. But, although the death rate has been reduced 80 percent in the last forty years, this disease still kills 50,000 people in this country each year. It still is the cause of death of more people between fifteen and forty than any other disease.\(^2\) Community-wide X-ray clinics, hospital care, expert surgery, and a variety of new drugs are helping to eradicate this plague, but much remains to be done.

Tuberculosis is curable, but recovery is often a slow process, and a full time job for the patient. "There are no short cuts, no miracle drugs, no tricks which promise a quick cure for this disease."\(^3\) The first, and probably the most important step toward recovery is the patient's decision to enter the hospital. Everything about the hospital has been planned for the sole purpose of helping him to win his battle. From the beginning to the end of his treatment, medical guidance is essential.


\(^3\) *Tuberculosis: Information for Families and Friends of Veterans*, p. 4.
Medical Aspects of Tuberculosis

The treatment of tuberculosis consists primarily of bed rest; it is still the basic and most essential treatment. The necessity and implications of bed rest have been facetiously but meaningfully put thus:

Rest consists of several divisions. The first is rest. The second is rest. The third is rest. And the fourth, fifth, sixth, seventh ad infinitum—rest. This cannot be emphasized too strongly. And by rest, I mean REST. Nothing half-willed, or half-hearted; no half-way, timid compromising; no cowardly abbreviations; but REST. Enough rest; rest long enough; rest rigid enough; rest physical and mental.

Another kind of treatment in tuberculosis is medication. Although there are no specific medicines which can arrest tuberculosis in a short time, several drugs, commonly called antibiotics, have been tried. The most promising is streptomycin. In pulmonary tuberculosis, streptomycin is used either by itself, or as a preliminary to the collapse measures which it often makes possible. Combined with bed rest it is superior to bed

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4 Shamaskin, op. cit., p. 5.

5 H. A. Pattison, Rehabilitation of the Tuberculous, p. 8.

6 For evaluation of the effects of streptomycin upon tuberculosis see Veterans' Administration, A Preliminary Statement Concerning the Effects of Streptomycin upon Tuberculosis in Man, Technical Bulletin 10-34; and Veterans' Administration, The Effects of Streptomycin upon Tuberculosis in Man, Technical Bulletin 10-37.
rest alone. Thus, it is an adjunct to bed rest, and collapse therapy in preparation to, or for, major surgery.

A third major treatment is surgery. The most common forms of surgical treatment are pneumothorax, pneumoperitoneum, phrenicotomy, and thoracoplasty. They are called collapse therapies since these operations owe their value to the benefit derived when the diseased lung is compressed and put to rest, in the same way as a broken bone heals properly when the limb is put into a cast or a splint. The most widely used form of collapse therapy is pneumothorax. In some cases where the lung has grown to the chest wall pneumothorax cannot satisfactorily compress the lung. Other forms of collapse therapy may be used, either in conjunction with, or instead of, pneumothorax.

Besides collapse therapy, major surgical operations may be performed on patients whose condition is in a far advanced stage; they are lobectomy and pneumonectomy. All these are employed in addition to, and not instead of, general rest.7

Emotional and Social Aspects of Tuberculosis

Few illnesses present so great a range of problems to patients and their families as does tuberculosis. Every

7 Shamaskin, op. cit., pp. 6-7.
case of this disease presents problems. Therefore, the treatment of these ills must be included along with medical care; it has been said that "the cure of tuberculosis depends more on what the patient has in his head than on what he has in his chest." Thus, "the place to treat tuberculosis is from the neck up."  

The problems which patients present during the period of medical care are many and varied. Those most frequently encountered in the tuberculous patient, demanding the most skillful handling on the part of the medical social worker, are emotional. At the time the patient is told he has the disease, the diagnosis is often a great emotional shock; this reaction may diminish as medical care is given. The actual treatment itself contributed additional fears, and the isolation of the patient from his family and normal environment may aggravate his already greatly disturbed state.

These attitudes are important not only because they influence the patient's acceptance of medical treatment, but also because they can actually affect the progress of the disease.

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9 Curtis Mitchell, "Tuberculosis Without Tears," The American Weekly, p. 2. Quoting David Lyman, M.D.
Fear is not the only response encountered, but it is so universal that it requires special consideration. Some of the frequent fear anxieties are as follows:

A-Fear of the disease-- Its ultimate outcome, the possibility of death, the treatment administered, particularly surgery and its disabling effects; the danger of becoming physically, economically, and emotionally impotent and dependent; the cost of long-time medical care, stigma, and the realization that members of the family may have become infected; inability to accept the prescribed medical regimen which requires restrictions on activity, removal from all close associates, loss of privacy and submission to a medical authority.

B-Social Fears--Loss of status in the home and in the community as a wage earner or a career person; fear of the inability to maintain the home in regard to finances and care and supervision of the children; marital infidelity and the complicated problems of sexual relationships, including the possible inadvisability of having children; loneliness and boredom.  

The emotional patterns may be complicated by well intentioned but often unsound advice of relatives and friends, by tradition, superstition, and cultural patterns that influence the patient's attitude toward his disease, and by philosophies, religious or otherwise, that sometimes creates unhealthy indifference to the diagnosis and the medical care program.

The economic needs are one of the major causative factors in the emotional distress. They are more easily treated because they are less subtle and more tangible; they are, however, serious and the adequacy of the handling is dependent upon the resources within the patient and his family, the community, plus the social worker's skill and the patient's ability to accept assistance. Some of the general economic problems include: loss of income because of the illness of the wage earner; increased drains on the family's resources; loss of financial assets, such as home, business, savings, and insurance.\textsuperscript{11}

Social problems are difficult to isolate from the foregoing groups as all of these situations have certain social aspects. For purposes of this paper, however, the term includes the environmental phases of the patient's situation, and is specifically concerned with questions of family problems. Such a problem is the attitude of members of the family toward the tuberculous patient, since this may require considerable explanations of his needs and limitations, and some help because of the fear of contracting the disease. Housing has significance as a contributing factor in the spread and unfavorable progress of the disease. There are problems related to the care of children in need of placement or housekeeping services. Discharge presents

\textsuperscript{11} Ibid., p. 15.
problems. The social worker must plan ahead with the family and the patient in order that he may have a satisfactory environment to which he can safely return with no fear or danger of reinfection.12

Rehabilitation

Rehabilitation is an integral part of the treatment of the tuberculous patient; its goal is the restoration of the patient to the fullest physical, mental, vocational, and economic usefulness of which he is capable. The process of rehabilitation begins at the point of diagnosis, and is continuous throughout medical care.

Rehabilitation is a teamwork job in which several professions participate, but not necessarily all at the same time. The leader of the team is the physician, and all other services are based on his diagnosis and recommendations. Among the important members of the team are the nurse, the medical social worker, the physical medicine therapist, the vocational counselor, and many others who are concerned with the patient in the institution. At times, representatives of outside agencies may participate.13

12 Ibid., p. 5-6.
13 Ibid., pp. 11-12.
In recent years rehabilitation of the tuberculous has moved forward at a new pace. It now plays a considerable role in the therapy of the patient and in the control of the disease. It provides a satisfactory motivation for acceptance and completion of treatment.

However, rehabilitation in tuberculosis presents some unique problems: The process begins in the sanatorium, where each candidate for rehabilitation resides for a long time. Throughout the patient's life, he is confronted by the specter of recurrence of his disease. He is always dependent for his health and welfare upon medical examinations. All phases of his life and activity must be permanently supervised and, if necessary, revised by a physician.

Trained personnel and other workers interested in the rehabilitation of the tuberculous recognize that for every phase of their plans for the patient, medical approval must be obtained. In turn, however, these workers are dependent upon the physician for information, advice, and leadership. If the physician, in his preoccupation with the patient's physical needs, fails to assume leader-

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14 Norvin C. Kiefer, M. D., Present Concepts of Rehabilitation in Tuberculosis, pp. 268-305.
ship, he jeopardizes his patient's welfare.

Some doctors foresee no advantage in including on their staff's professional persons other than those with nursing or medical training. Sometimes their reluctance is the result of a previous unpleasant experience with unsatisfactory members of the team.

Much basic research into activity to be allowed tuberculous patients is necessary. First on the list of positions unsuitable for tuberculous patients is any position involving physical exertion. This category encompasses the largest number of employees. Thus, this confronts those involved in rehabilitation with the problem of designating the jobs which demand excessive physical exertion of a tuberculous ex-patient. As yet there is no yardstick which can be used to assess the capacity for activity in a person with tuberculosis.

The employability of persons who have had the disease is one of the most important objectives of rehabilitation. Before widespread employment of tuberculosis ex-patients can become a reality, it will be necessary to secure recognition, sympathy, cooperation and support from management, labor, and workmen's liability insurers. Much remains to be done toward that goal.

The youthfulness of many of the projects of re-
habilitation in tuberculosis, and the relatively recent development of some of the special services which are utilized, have produced a considerable amount of confusion; there has been much overlapping of functions with consequent resentment and bickering by different members of the team.

At times, the team does not function as smoothly as it should because the individual members cannot submerge anxieties regarding their own importance and security in the treatment of the patient.

Patients who leave the hospital before treatment is completed present a great problem to the rehabilitation team. Besides probably doing great harm to themselves, they partially defeat the entire rehabilitation process. Irregular discharges from tuberculous hospitals range from 5 to 60 percent of admissions.\(^\text{15}\) In most institutions departures are at the higher end of the scale. Of all the tuberculous patients discharged from Veterans' Administration hospitals in 1946, 54 percent had irregular discharges.\(^\text{16}\) Systematic studies have resulted in a better

\(^\text{15}\) Holland Hudson, Techniques in the Rehabilitation of the Tuberculous, p. 324.

\(^\text{16}\) Veterans Administration, Instructions for Study of Irregular Discharges Received by Tuberculosis Patients from V. A. Hospitals, Budget Bureau No. 76-110, p. 1.
understanding of the problem; and provide ways of coping with it. Although there has been a decline, irregular discharges still remain a serious problem, and confronts the majority of treatment centers.
CHAPTER III
SETTING

Facts About Cushing Veterans' Administration Hospital

Cushing Veterans' Administration Hospital was originally an army hospital. It was turned over to the Veterans' Administration on October 1, 1946. It is located in Framingham, Massachusetts. It is a four hundred bed, general hospital for the diagnosis and treatment of acutely ill veterans. The General Medical Service carries a resident training program. The hospital also maintains specialized paraplegia and tuberculosis services.

Tuberculosis Service.

At first, services for the tuberculous were part of the General Medical Service, but later they were incorporated into a separate unit. At present the Tuberculosis Service consists of two wards with a capacity of about one hundred beds.

Patients admitted to the Tuberculosis Service are placed in a category or class, depending on the stage of the disease. This class defines the amount of activity which is medically advisable for the patient. There are four such classes. The patients placed in Class I are on a regimen of strict bed rest with no physical activity.
permitted. Those in Class II may engage in slight physical activity. For example, occupational therapy in bed up to one hour daily. Class III allows the patient a small amount of ambulation with increased activity up to two hours daily. The patients in Class IV are permitted to stay out of bed four or more hours daily. As the patient progresses medically he is graduated through these classes.

Physical Medicine Rehabilitation Service

The hospital has a complete and well organized Physical Medicine Rehabilitation Service. Included in this Service are the Physical Therapy, the Occupational Therapy, the Educational Therapy, the Manual Arts Therapy, the Corrective Therapy Departments, and the Vocational Rehabilitation Service.

The role of physical medicine in the treatment of the tuberculous patient is vital. Its specific objectives are:

1. To promote acceptance of bed rest by the patient by providing relaxation therapy when needed.

2. To furnish facilities for developing and measuring physical capacity for work.

3. To help motivate patients to develop an active interest in, and a desire for, complete recovery.
4. To provide pre- and post-operative therapy for selected patients who require thoracic surgery.¹

The Physical Medicine Rehabilitation Service implements these objectives through its well equipped clinics and trained personnel.

Patients use the facilities of this Service on prescription from the doctor. The prescription may be for tonic and/or metric treatment. In those cases where the patient's condition precludes his going to the clinics, therapists provide on-the-ward services, especially occupational therapists.

Social Service

The Social Service Department is organized as a distinct service of equal status with other departments of the hospital.² The Chief Social Worker is responsible administratively to the Manager and professionally to the Clinical Director of the hospital. At the time this study was written, the staff consisted of the Chief Social Worker, a supervisor of casework, a medical social worker, two student social workers, and a secretary.

There is not at present a social worker assigned specifically to the tuberculous wards, as was the case during the period covered by this study. At that time the worker saw all patients upon admission to the Tuberculosis Service or shortly thereafter. Despite several changes of doctors, the same worker covered the tuberculosis wards during this period. This made for continuity of social services.

The role of the medical social worker in the rehabilitation process is to assist:

...Veterans disabled by injury or disease, to handle perplexities, difficulties, or leaks in their homes or varying circumstances and activities, when such personal problems are blocking progress toward health. There is responsibility, through social study and casework services, for teamwork with physicians and others in understanding and relieving tangible and intangible situations, adversely effecting the veteran's adjustment and the development of his remaining capacities for meeting the demands of everyday life. The work also involve planning with veterans, their families, and health and social agencies, practical ways for meeting the personal problems of readjustment caused by disease or injury. The aim is to enable disabled veterans to use, to their advantage and satisfaction, their own potential abilities, the medical, vocational rehabilitation, and other benefits and opportunities available to them through the Veterans' Administration and community resources.3

CHAPTER IV

INTEGRATIVE SERVICES IN THE REHABILITATION PROCESS
IN THE CASES STUDIED

As has been seen above, the total rehabilitation of the tuberculosis patient involves the services of many disciplines. No one discipline can effectively do the job alone. Thus, the multi-discipline approach was evident in the cases studied.

For the purposes of this paper, the writer will present the concrete contributions of three disciplines: 1) The Tuberculosis Service, 2) Social Service, 3) Physical Medicine Rehabilitation Service.

Tuberculosis Service

In presenting a picture of medical contributions it will be important to show the extent of the disease at admission to the Service, the kinds of treatment received, the activity of the condition at discharge, length of time in the Service, and, finally, reason for leaving the hospital.
### TABLE I

STAGE OF THE DISEASE AT THE TIME OF ADMISSION TO THE TUBERCULOSIS SERVICE

<table>
<thead>
<tr>
<th>Stage of Disease</th>
<th>Number of Patients</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>72</td>
<td>100</td>
</tr>
<tr>
<td>Minimal</td>
<td>18</td>
<td>25</td>
</tr>
<tr>
<td>Moderately advanced</td>
<td>33</td>
<td>45.8</td>
</tr>
<tr>
<td>Far advanced</td>
<td>21</td>
<td>29.2</td>
</tr>
</tbody>
</table>

### TABLE II

DISTRIBUTION OF THE MEDICAL TREATMENT BY STAGE OF THE DISEASE

<table>
<thead>
<tr>
<th>Medical Treatment</th>
<th>Number of Patients</th>
<th>Stage of the Disease</th>
<th>Minimal</th>
<th>Advanced</th>
<th>Far Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>72</td>
<td>18</td>
<td>33</td>
</tr>
<tr>
<td>Bed rest</td>
<td>72</td>
<td>Minimal</td>
<td>18</td>
<td>33</td>
<td>21</td>
</tr>
<tr>
<td>Chemotherapy</td>
<td>51</td>
<td>Advanced</td>
<td>8</td>
<td>26</td>
<td>17</td>
</tr>
<tr>
<td>Surgery</td>
<td>33</td>
<td>Far Advanced</td>
<td>0</td>
<td>17</td>
<td>16</td>
</tr>
</tbody>
</table>
Table I shows the stage of the disease upon admission to the Service. Of the seventy-two patients in the study, in eighteen the disease was at a minimal stage; thirty-three were at a moderately advanced stage; and twenty-one were at a far advanced stage. Fifty-four or 75 percent of the patients were admitted with an advanced stage of tuberculosis.

Table II gives a picture of the types of treatment the patients received while hospitalized. Bed rest was the basic treatment for all stages of the disease and had primacy in the hierarchy of therapies. Thus, we see that all seventy-two patients in the study were placed on bed rest. The amount recommended by the medical staff depended upon the stage of the disease and the class in which patients were placed.

Chemotherapy - streptomycin and/or PAS - was administered to fifty-one patients. This is 71 percent of the total number of cases studied. Of the fifty-one patients receiving chemotherapy, eight were minimal, twenty-six were moderately advanced, and seventeen were far advanced cases. Thus, 44.4 percent of the minimal, 78.8 percent of the moderately advanced, and 80.9 percent of the far advanced stages received some form of chemotherapy.

Eleven of the fifty-four patients in the advanced stages of tuberculosis did not receive this therapy, the
reasons being that some patients showed satisfactory progress on bed rest alone and did not require any other form of treatment, and others were irregularly discharged before this particular course of treatment could be initiated.

A third kind of therapy was surgery. Only thirty-three patients underwent this form of therapy. None of the minimal cases underwent surgical operations; approximately 54 percent of the moderately advanced and 75 percent of the far advanced cases did. No surgery was performed on patients with a minimal condition because none was necessary; bed rest and, in a few cases (8), chemotherapy being sufficient to bring about maximum benefits.

Ten patients of the twenty-one who did not receive surgical treatment did not require surgery. Bed rest alone or in conjunction with chemotherapy proved adequate. Two of the twenty-one patients refused proffered surgery. One patient left the hospital against medical advice before contemplated surgery could be performed. In three cases, a conference of the medical staff considered surgical treatment but decided not to operate because of certain factors which militated against it. Five cases gave no reason for the lack of surgery.
### Table III
**Types of Surgery by Advanced Stages of Tuberculosis**

<table>
<thead>
<tr>
<th>Surgery Performed</th>
<th>Total Operations</th>
<th>Total Operations</th>
<th>Moderately Advanced</th>
<th>Far Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>471</td>
<td></td>
<td>20</td>
<td>27</td>
</tr>
<tr>
<td>Thoracoplasty</td>
<td>15</td>
<td></td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Pneumoperitoneum</td>
<td>142</td>
<td></td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Pneumothorax</td>
<td>5</td>
<td></td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Segmental resection</td>
<td>4</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Lobectomy</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumonectomy</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Phrenicotomy</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Pneumonolysis</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

1. The discrepancies between the number of surgical operations shown in this table and the number of patients receiving surgery as shown in Table II were accounted for by the fact that some patients received more than one type of surgery.

2. This figure shows only the initial pneumoperitoneum. Several patients required one or more refills, but since the medical records were not exact on this point, it was deemed advisable to include only the initial operation.
The thirty-three patients who received surgery account for forty-seven surgical operations. (See footnote 1 under Table III.) The number of surgical operations as shown is not a true figure of the total number actually performed. (See footnote 2 under Table III.)

As would be expected, the patients in the far advanced stage of tuberculosis received more surgery than those in the moderate stage—twenty-seven operations to the former, and twenty to the latter group.

Important diagnostic aids that were utilized before treatment began and throughout the period of hospitalization were: 1) chest x-rays, 2) examination of concentrated sputum smears, 3) skin tests, 4) guinea pig inoculations, 5) gastric cultures, and 6) bronchoscopies.
Table IV shows the activity of the tuberculous condition at time of discharge. It is broken down by stages of the disease as found to exist at the beginning of the hospital course. Of the seventy-two patients in the study, there were ten whose condition was unchanged, i.e. they entered the service with active tuberculosis, and the activity remained unchanged throughout the hospital course. All ten were irregularly discharged. Five of these ten cases suffered from mental disorders, three were in the
moderately advanced stage and seven were far advanced. Thus, almost 14 percent left the hospital unimproved.

Twelve patients were declared improved but still active at discharge. Here again, irregular discharges were prominent. Of these twelve, six were moderately advanced, and five were far advanced. Only one was in the minimal stage. These figures show that 30.5 percent or almost one-third of the patients in the cases studied had active tuberculosis at time of discharge.

The condition at discharge was quiescent in fourteen cases and apparently arrested in fourteen cases. There were seventeen cases in which a clinical status of arrested was specified. This is 26 percent of the number of cases studied. In five cases, the activity at discharge was undetermined; all were irregular discharges.
TABLE V

STAGE OF THE DISEASE AND REASONS FOR DISCHARGE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>72</td>
<td>41</td>
<td>23</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Minimal</td>
<td>18</td>
<td>15</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Moderately advanced</td>
<td>33</td>
<td>22</td>
<td>7</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Far advanced</td>
<td>21</td>
<td>4</td>
<td>15</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

1 Maximum Hospital Benefit
2 Against Medical Advice
3 Absent Without Official Leave
4 Disciplinary

From Table V we see that forty-one patients were discharged with maximum hospital benefit, while thirty-one patients were given irregular discharges; this is 57 percent and 43 percent respectively.

Of the irregular discharges, twenty-three, or 74 percent of the total number, were against medical advice. Six were absent without official leave. Two discharges came as a result of disciplinary action.
Those patients with minimal tuberculosis had the most impressive figure. Eighty-three percent of the eighteen in this group were discharged after receiving maximum benefits; 71 percent of the moderately advanced cases were so discharged.

Nineteen percent of the twenty-one far advanced cases were discharged with maximum hospital benefits. Fifteen patients in this stage (70 percent) left against medical advice, while two were discharged because of absence without official leave.

TABLE VI
LENGTH OF TIME IN TUBERCULOSIS UNIT AND STAGE OF THE DISEASE

<table>
<thead>
<tr>
<th>Length of Time in TB Unit</th>
<th>Stage of the Disease</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Moderately</td>
<td>Far</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>18</td>
<td>33</td>
<td>21</td>
</tr>
<tr>
<td>Less than 1 month</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 6 months</td>
<td>3½</td>
<td>10</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>7 to 9 months</td>
<td>11</td>
<td>3</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>10 to 12 months</td>
<td>10</td>
<td>4</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>13 to 15 months</td>
<td>10</td>
<td></td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>16 to 18 months</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>19 to 21 months</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>21 to 24 months</td>
<td>2</td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>
Table VI shows that only two patients remained in the hospital less than one month. Both were irregular discharges; one had a minimal condition and the other a far advanced condition.

Thirty-four patients were in the Unit more than one month and less than seven months. This is over 47 percent of all cases studied. Of these, ten were minimal cases; twelve were moderately advanced cases; and twelve were far advanced cases. Hence, twenty-four (75 percent) patients in the advanced stages of tuberculosis were discharged within six months. Seventeen of that number were given irregular discharges, many of whom still had an active condition.
### TABLE VII

**REASONS FOR IRREGULAR DISCHARGES**

<table>
<thead>
<tr>
<th>Reasons for Irregular Discharge</th>
<th>No. of Patients Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient's feeling that he would do better at home</td>
<td>9</td>
</tr>
<tr>
<td>Family or marital problems</td>
<td>7</td>
</tr>
<tr>
<td>To seek hospitalization closer to home</td>
<td>3</td>
</tr>
<tr>
<td>Inability to accept further hospitalization in view of negative tests</td>
<td>2</td>
</tr>
<tr>
<td>Dissatisfaction with hospital treatment and regime</td>
<td>2</td>
</tr>
<tr>
<td>Disciplinary Board recommendation</td>
<td>2</td>
</tr>
<tr>
<td>Fear of Surgery</td>
<td>2</td>
</tr>
<tr>
<td>As an alternative to appearing before a Disciplinary Board</td>
<td>1</td>
</tr>
<tr>
<td>Feeling of despair, hopelessness about physical condition</td>
<td>1</td>
</tr>
<tr>
<td>Reason unknown</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31</strong></td>
</tr>
</tbody>
</table>

Table VII shows the reasons for leaving the hospital on an irregular discharge. These reasons were varied. The one most often given was the patient's feeling that he would do better at home. Nine patients left for this rea-
son. There were seven patients who left because of domestic problems.

For three patients, the distance from their homes presented a particular problem, and they left the hospital to seek hospitalization closer to home.

Two patients no longer felt the need for hospitalization since incomplete function studies showed them to be negative. They left against medical advice.

Two more patients were discharged irregularly because they were dissatisfied with the treatment and care they were receiving.

Fear of surgery accounted for two irregular discharges. Both of these patients were offered surgical operations but refused. Very soon thereafter they left the hospital. Their departure having apparently been prompted by the fear that surgery might be forced on them.

On the recommendation of the Disciplinary Board, two patients were discharged. One was for intoxication and misconduct on the ward, the other for repeated infractions of hospital rules. A third left as an alternative to appearing before the Disciplinary Board for having intoxicating liquors in his possession.

Despair was also a reason for leaving prematurely.
Table VIII shows that thirty patients (42 percent) of the seventy-two studied suffered from other ailments. Of these thirty, ten suffered from personality and mental disorders—a factor which frequently seriously affected the functioning and rehabilitation of the patients involved. Seven of the ten were in the advanced stages of the disease.

Of the ten, six were irregularly discharged. Whether this condition was a result of the pulmonary tuberculosis, or simply a concurrent factor was not deter-
mined. Nevertheless, it remained a significant and serious problem of rehabilitation for the ten patients in general, and, in particular, to the six who left the hospital before maximum hospital benefit had been achieved.

Eight patients had respiratory and gastrointestinal disturbances. These ranged from bronchial asthma to duodenal ulcers.

There were five patients with cardiovascular or metabolic diseases. Three of these had diabetes mellitus, another arteriosclerotic heart disease.

Four patients were found to have extra-pulmonary tuberculosis also, after the initial diagnosis of pulmonary tuberculosis had been made. These required a more intensive period of treatment and a wider range of function studies and use of diagnostic aids.

There was spinal pathology in four cases—three with rheumatoid spondylitis, one with multiple sclerosis.

One patient requested a study of fertility due to his inability to impregnate his wife. This study was undertaken. No therapy was indicated, and the cause of sterility remained undetermined.

Of the thirty patients with co-existing conditions, five had more than one. Two patients had three conditions besides tuberculosis, and three had two.

Almost 35 percent of the patients in this study
### TABLE IX

**SOURCES OF REFERRAL**

<table>
<thead>
<tr>
<th>Source of Referral</th>
<th>No. Referred</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Reception contact</td>
<td>25</td>
</tr>
<tr>
<td>Physician</td>
<td>18</td>
</tr>
<tr>
<td>Self-referred</td>
<td>9</td>
</tr>
<tr>
<td>Nurse</td>
<td>1</td>
</tr>
<tr>
<td>Others</td>
<td>11</td>
</tr>
<tr>
<td>Not indicated</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>72</strong></td>
</tr>
</tbody>
</table>

### TABLE X

**LAPSE OF TIME BETWEEN ADMISSION TO THE TUBERCULOSIS SERVICE AND REFERRAL TO SOCIAL SERVICE**

<table>
<thead>
<tr>
<th>Lapse of Time</th>
<th>No. of Referrals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Under 1 month</td>
<td>39</td>
</tr>
<tr>
<td>1 less 3 months</td>
<td>17</td>
</tr>
<tr>
<td>3 less 6 months</td>
<td>9</td>
</tr>
<tr>
<td>6 less 9 months</td>
<td>none</td>
</tr>
<tr>
<td>9 less 12 months</td>
<td>2</td>
</tr>
<tr>
<td>12 less 15 months</td>
<td>3</td>
</tr>
<tr>
<td>15 less 18 months</td>
<td>2</td>
</tr>
</tbody>
</table>
became known to Social Service at admission through reception contacts. Table IX shows that twenty-five patients who accepted help were initially seen by a worker upon admission.

Physicians referred eighteen patients, the nurse one patient. Nine patients asked for help by self-referral. Other sources besides those mentioned accounted for eleven referrals. They were made by volunteer workers, the chaplains, other Veterans Administration agencies, and private agencies and relatives.

Table X shows that more than half the patients became known to Social Service within a month after entering the unit. Thirty-nine patients were so known. Seventeen became known to Social Service between first to the third month, thus 78 percent, or 56, of the seventy-two patients in the study were referred for social services within three months. There were nine patients referred between the third and sixth month after admission. No patient was referred between the sixth and ninth month. Between the ninth and eighteenth month, seven patients were referred for social services.

The reasons for the referrals fell within the following groupings: 1) family and housing problems, 2) follow-up arrangements, 3) financial problems, 4) transportation arrangements, 5) discharge planning, 6) emotional problems,
7) social studies, 8) vocational problems.

The services rendered by the Social Service Department to the tuberculous patients in this study are varied. They have been grouped into twelve headings as shown in Table XI.

**TABLE XI**

**NATURE OF SOCIAL SERVICES RENDERED**

<table>
<thead>
<tr>
<th>Nature of Service Rendered</th>
<th>No. of Services Rendered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referrals to other agencies</td>
<td>47</td>
</tr>
<tr>
<td>Support and/or reassurance</td>
<td>17</td>
</tr>
<tr>
<td>Help with financial problems</td>
<td>15</td>
</tr>
<tr>
<td>Help with housing, family and marital problems</td>
<td>10</td>
</tr>
<tr>
<td>Social Histories</td>
<td>9</td>
</tr>
<tr>
<td>Interpretation and/or clarification of treatment and hospital routine</td>
<td>8</td>
</tr>
<tr>
<td>Discharge planning</td>
<td>8</td>
</tr>
<tr>
<td>Help with vocational planning</td>
<td>8</td>
</tr>
<tr>
<td>Help with emotional and/or personal problems</td>
<td>8</td>
</tr>
<tr>
<td>Help with legal problems</td>
<td>4</td>
</tr>
<tr>
<td>Transportation arrangements</td>
<td>4</td>
</tr>
<tr>
<td>Miscellaneous services</td>
<td>3</td>
</tr>
</tbody>
</table>

This table shows that the services most often
rendered were referrals to other agencies, both private and public. There were forty-seven such referrals made. These were mostly by letter. Referral for follow-up was made in every case of irregular discharge.

Referrals to the public agencies predominated, the Veterans' Administration agencies receiving the bulk of them. Twenty-seven of the referrals to Veterans' Administration agencies were for follow-up of discharged patients, especially of irregularly discharged patients.

Supportive help and reassurance was given to seventeen patients.¹

Fifteen patients received help with financial problems, i.e. in finding and exploring financial resources.²

Ten services were given to patients with housing, family, and/or marital problems.

Nine social histories were purposefully gathered and integrated.

Interpretation and/or clarification of the hospital treatment and routine was given in ten cases.³

¹ That is to say that these were the principal, most evident, and often the only services rendered. However, these important casework services were not necessarily utilized in these cases only.

² This does not include matters of pensions and compensation, which come within the functions of the Veterans' Contact Representative at the hospital.

³ See footnote 1 above.
Vocational and discharge planning accounted for sixteen services.

Help was given for legal problems in four cases. In these the services of the Legal Division of the Veterans' Administration, and the Legal Aid Society were utilized.

Thus, from the foregoing we see that Social Service was instrumental in meeting the emotional, social, and economic needs of the tuberculous patients in this study.

**Physical Medicine Rehabilitation Service**

All the therapy departments of the Physical Medicine Rehabilitation Service, except Corrective Therapy, contributed services to the tuberculous patients in the study.

**TABLE XII**

**PHYSICAL MEDICINE SERVICES RENDERED**

<table>
<thead>
<tr>
<th>Nature of Service Rendered</th>
<th>No. of Patients Receiving Service</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Therapy</td>
<td>30</td>
<td>36</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Manual Arts Therapy</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Vocational Rehabilitation</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Educational Therapy</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Table XII shows that thirty-six of the...
patients, or one-half, received physical medicine services. Thirty patients availed themselves of the services offered by the Occupational Therapy Clinic. Sixteen patients taking occupational therapy were referred on prescription for tonic treatment, i.e., diversional activities to be carried out on the ward. These activities consisted mostly of leather work, such as the making of wallets, belts, and the like, or of art work, such as drawing, water coloring and painting, and the like.

Nine patients were referred to Occupational Therapy for both tonic and metric treatment and five for metric treatment only. The activities of these patients were carried on mostly in the Occupational Therapy Clinic. These activities consisted of more elaborate and complicated leather work than could be done on the ward; stenciling, copper tooling, pottery and weaving.

The physicians referred eight of the patients for physical therapy. These prescriptions were mostly for post-thoracoplasty exercises.

Four patients received training in the manual arts as part of overall therapy and rehabilitation. One each

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4 During the years 1948 and 1949 services to the tuberculous patients were very limited due to a lack of trained therapists in the different physical medicine clinics.
took up carpentry, watch repairing, and metal work. The activity of the fourth was not indicated.

Also, four patients were referred to the vocational counselor for vocational testing, evaluation and guidance. They were given a battery of aptitude and intelligence tests which helped the psychologist to evaluate the patients' potentials and guide them accordingly into suitable vocations.

The Educational Therapy Department rendered services to three patients. One patient took typewriting, another radio courses, and a third took general classical courses.

Thus, the writer has pictured the medical, social and physical medicine services insofar as they related to and promoted the rehabilitation of the tuberculous veteran-patient.
CHAPTER V
CASE STUDIES

It is the purpose of this chapter to show some of the problems which were found in some cases to have hindered the rehabilitation.

The biggest problem in rehabilitation encountered in this study, and probably the most disheartening, was that of irregular discharges. In many cases, the patients had previous irregularly discharges from this hospital or other sanatoria. Most of these patients were basically restless, and several had inadequate personalities. The immaturity, irresponsibility and lack of understanding of the need for continued treatment was evident in many cases. As shown in Table V, the worst offenders were far advanced cases. The following is a typical example:

Mr. M. is a 25 year old man who is separated from his wife. He was admitted to the hospital with a diagnosis of far advanced tuberculosis. The patient was placed on strict bed rest, and soon after a course of chemotherapy was instituted. After twenty-two days of this therapy the patient left the hospital against medical advice. Giving family troubles as the reason for leaving. The physician recommended that a home visit be made to try to make him accept the need for rehospitalization. The patient had a poor prognosis and would have no chance of recovery unless he were to return to the hospital. He was described as an excitable emotional person who had left after receiving a telephone call from his wife from whom he was separated, reporting that their child was
ill. She had indicated that she needed money for the child's care, and the patient insisted that it would be necessary for him to go home to get the money. He did not accept the suggestion of getting help through a social agency. The pass requested was refused and patient left anyway.

Upon investigation it was found that the patient's daughter had had bronchitis. She had recovered, and the patient returned to the hospital.

Despite his twenty days away from the hospital, the patient's condition did not seem to worsen. It was felt that he should have more rest. His attempts at this, at best, were half-hearted. The patient continued to improve. After two months of hospitalization he again left the hospital against medical advice, giving family problems as the reason. His condition was still active.

The patient had expressed a desire to re-establish a home with his wife with whom he had become reconciled. Exploration of this revealed that he was actually thinking of returning to his family home.

Attempts to discuss his decision to leave in relation to his physical needs were in vein. He expressed appreciation of the need to get complete bed rest by saying that he would get all the care he needed at his mother's house. There did not seem to be any point in pursuing this matter further in the light the patient's unrealistic attitude.

Later discussion with members of the team confirmed the impression that the patient's intentions seemed to relate to his basic restlessness and his inability to accept the treatment program or his need for it. This episode seemed to duplicate in many ways his previous departure and an intervening threat to leave, and everyone seemed agreed that there was little that could be done to deter the patient.

During the two hospitalizations he had attempted occupational therapy activities on the ward, but he showed very little patience and perseverance with these.

While this patient gave domestic troubles as the reasons for his leaving the hospital before complete re-
covery was affected, the evidence points to more deeply seated causation. His lack of insight into his need to accept the treatment program, and the danger to himself by his failure to do so, made attempts to rehabilitate him a very difficult task. The social worker's attempts to dissuade him from leaving against medical advice were in vain. The fact that his condition was still active makes little impression, so emotionally disturbed was the patient. Strong destructive instincts seemed to be an operating factor in his inability to accept sustained treatment by leaving before maximum benefits were attained. The patient's general restlessness and impatience of the course of treatment is evidenced by his poor acceptance of bed rest and inability to arrest himself to diversional occupational therapy activities.

The following illustrates a case in which the gravity of the condition and the folly of a past irregular discharge is grasped by the patient, and, despite many medical and emotional problems, sees treatment brought to a successful conclusion.

Mr. L. is a 26 year old unmarried man. He was admitted to the hospital with a diagnosis of far advanced tuberculosis. Severe active symptoms were present. A year before, he had left another sanatorium against medical advice, feeling he would do better at home. Exacerbation of the condition prompted him to be re-hospitalized. His temperature initially varied from 99° to 101°. He was placed on complete, strict bed rest. A few weeks
later a forty-two day course of chemotherapy was begun. During this time the patient had a very severe hemorrhage. Following this he showed very slow improvement of appetite, temperature and laryngitis. A month later a chest film showed a slight increase of the disease. Six months later patient had a series of hemorrhages requiring transfusions. Fever persisted, sometimes going as high as 102°. Further hemorrhages occurred several months later, for which the patient was put on a ninety day course of chemotherapy. During this course of medication, pneumopeutoneum was induced, and three months later a pneumonectomy performed. A little later a thoracoplasty was subsequently performed to prevent undue displacement of the mediastinum.

The patient withstood these procedures surprisingly well considering his poor general condition prior to surgery. General physical condition improved slowly but consistently after surgery, and he was gradually ambulated.

The patient never made any specific requests for assistance from Social Service during his hospitalization, but the worker continued to see him periodically as he had been responsive to worker's interest and had utilized the interviews to air his feelings in different areas of concern. There were marked changes in his mood and his readiness to talk, but he was found to be consistently verbal when he was disturbed about something. He was sensitive and suspicious and revealed considerable difficulty in talking directly about the things that were bothering him.

The patient expressed considerable pride in the progress he felt he had made at this hospital, admitting that he was so scared when he was admitted that he had been afraid to go to sleep for fear that he might not wake up. He had a lot of feeling about his earlier hospitalization. He had been so discouraged by the stories he heard about the details of patients that he had felt against medical advice. The discussion of the details of his treatment gave the impression that he was a cautious person who had focused the major portion of his attention on the business of getting well in a deliberate, measured manner. He appeared to have accepted his surgery as a necessary evil in keeping with this manner, and he was
looking forward, optimistically, as he felt he had met the major barriers to recovery.

Despite this apparent fortitude the patient gave the impression of being an immature, dependent, young man who was closely tied to his family. He spoke as though he were making a deliberate effort to assert some independence, but his army service and long period of hospitalization had not given him much of an opportunity to assume any responsibilities. Throughout worker's contacts, he reverted to childlike petulance in his review of his situation, however, and was so preoccupied with his illness that there was a great deal of question about his ability to make more mature adjustment at that time.

The patient had gone into the service upon completion of his high school course. He had hoped to go into the field of printing as he had had some training in this at school. He was referred to Vocational Guidance for help with this problem, and eventually was able to avail himself of Manual Arts Therapy Clinic facilities along this line.

The patient was discharged with maximum hospital benefit after twenty-four months of hospitalization. He received a clinical status of apparently arrested tuberculosis.

The twenty-four months this patient spent in the hospital is one of the longest hospitalization periods encountered in the study. (See Table VI) This case shows how the medical situation was greatly aggravated by patient's previous irregular discharge. It appears that had patient completed his course of treatment during the first hospitalization he would not have required the drastic surgery that he received due to the threatening progress of the disease.

The continued progress of the tuberculosis was in part due to the patient's emotional state occasioned by his fears and anxieties about his condition and its outcome.
These fears seemed to have been instrumental in his determination to get well.

The patient's inability to make effective use of casework services seemed to have been consistent with his efforts to ameliorate himself and assert his independence. It was inappropriate at that time, and hindered the recovery process by precluding his mental well-being.

In some cases, the patient terminated casework and physical medicine rehabilitation service before treatment goals had been achieved, or made such poor use of these services as to make them ineffective. In these cases adverse personality factors often played a part.

Mr. C. is a 33 year old unmarried man. He was admitted to the hospital with a diagnosis of moderately advanced tuberculosis. The course of the disease was uneventful. The patient was essentially asymptomatic throughout his entire hospital stay. He ate well and lost no weight. A positive bacteriology was never obtained. The patient was treated solely with bed rest.

While the patient was in the hospital, he was found to have a very inadequate personality and psychiatric consultation was obtained. It was felt that the patient had a schizoid personality that warranted psychiatric treatment. Arrangements were made for the patient to be admitted to the neuro-psychiatric Service in the future.

The patient's discussions about himself were confused and incoherent at points. The impression received was that of a limited person with a long history of maladjustment. He described an unstable army career with frequent transfers from one outfit to another. On his return from service, he changed jobs frequently with extended periods of idleness in between.

He seemed to be very sensitive about his own
limitations and dwelt continuously on his unsettled state, his increasing years and his desire to get ahead and make something of himself. He seemed uncomfortable about the fact that his parents were taking care of him. He attributed his tubercular condition to not living right, which he equated with his idleness, and the fact that he kept to himself in a manner that did not seem particularly meaningful.

He expressed a great dread of surgery, and tried to convince himself that things were not as bad as they seemed. He appeared to be quite overwhelmed by his illness and hospitalization. His history reflected that he had frequently encountered difficulty in coping with new situations and made it seem as though his current confusion and upset were part of his regular pattern. There was a great deal of question as to how much he could be helped to make a more satisfactory adjustment in the light of his limited understanding.

He was encouraged to take advantage of his opportunities for training under the G. I. program. Because of his long absence from any academic work he did not seem to have much confidence in his ability. He was seen by the psychology department where a series of tests was given. It was found that he had perfectionistic strivings which were beyond the potentialities of his intellectual ability. His desire for achievement was at variance with his inadequate conception of himself. The tests also revealed a strong tendency to feminine identification with a marked repression of sexual impulses. There was some evidence of paranoid thoughts. It was felt, nevertheless, that the patient was capable of maintaining a marginal social adjustment.

Patient availed himself of occupational therapy activities provided on the ward. Later, as his condition warranted, he was referred to the Occupational Therapy Clinic. There he learned the weaving process in anticipation of employment in a textile mill in his home town. He had worked there previously, doing odd jobs.

Patient was in the Tuberculosis Service seven months. He received maximum hospital benefit, and was discharged with a clinical status of apparently arrested.

In this case we see a man who appears to be very
much in conflict with himself due to present illness and hospitalization. He displays strong guilt feelings about both these factors. The patient has evidently had a long history of idleness and dependency. This is being repeated by present hospitalization. To him the illness was brought about as a result of previous inactivity on his part, now the illness brings on idleness; thus, a vicious circle is set in motion, and creates ambivalence and guilt. Carework was ineffective because of his lack of insight and understanding.

Mr. S. is a 41 year old unmarried man. He was admitted to the hospital with a diagnosis of moderately advanced tuberculosis. The patient was placed on strict bed rest, but this treatment did not suffice. A left pneumothorax was performed but was unsuccessful because of adhesions. A course of chemotherapy was initiated. Later, a thoracoplasty was performed. The patient had a stormy post-operative course with great many complications, and possibility of relapse. A pulmonary embolism developed, but calmed down after bilateral femoral ligation. There was some residual deafness in the right ear as a result of the streptomycin therapy.

At first contact with Social Service, the patient denied having any immediate problems, indicating that his previous hospitalization had prepared him for the acceptance of the situation. Later, he approached the worker about his concern for his future. He realized how much of a problem he was facing in regard to this. He had been uncovered the restaurant of a brother-in-law, but felt that he overdid on the job and thought that he would be interested in the vocational advisory program later in his hospital course.

He had expressed an interest in forestry, but doubted his ability to return to school. He had
thought about chicken farming or truck farming, but had a great deal of question as to whether he would be happy by himself in work of this kind as he enjoyed contacts with people. Again, he thought of doing something in the personnel or public relations line. Vocational rehabilitation for testing and advisement in regard to the specific requirements of varying types of jobs was suggested.

The patient was referred to the Vocational Rehabilitation Service. As a result of testing, and consultation with the vocational advisor, the patient developed an interest in attending a hotel school for training in management. This was arranged. Later the patient reported that he had given up the idea of going to school. He felt the situation would be similar to what he had had in the restaurant. He had no definite alternate plans and no wish to make any.

The patient was discharged after fourteen months with a clinical status of arrested, having received maximum hospital benefit.

This case presents a man who is much concerned over his future. Although patient presents it as a vocational problem, the problem appears to be more extensive. He has reached middle age and has nothing to show for his years—no family, no vocation, no economic security. The combination of these and other factors seem to make up the patient's concern. We see that helping him vocationally did not suffice; he reneged on plans to attend school of his choice. Attempts to help him make other plans were not successful. It seems to show patient's confusion and indecision.

We also see that there were many and serious medical problems as a result of treatment complications.
Mr. H. is a 28 year old married man. He was admitted to the hospital with a diagnosis of minimal tuberculosis. His course in the hospital was essentially uneventful. He was treated solely with bed rest. Ambulation was started a few months before discharge. While he was in the hospital, an infected sebaceous cyst was removed from behind his right ear.

Throughout his contacts with the worker, the patient seemed very upset, and his concern diffused. He spoke in a brusque, clipped manner, and his face remained scowling and serious. He always sounded very bitter and negativistic. In exploration with the patient there were always many questions and contradictions. In continued contacts he rejected all possible channels of assistance with the problem areas he had revealed. He had married a Catholic girl over her family's objections. His wife was pregnant and little help could be expected from either family. He was concerned about her ability to manage following her discharge from the hospital. It was suggested that planning be made for care and/or assistance through community agencies. The patient expressed an interest in having worker check with the visiting nurse organization, but did not have any desire for help in other areas.

It was agreed that little could be done to help the patient in the light of his negative outlook. Nevertheless, contacts were continued in an effort to determine whether the worker could be of service in offering the patient an outlet for his intense feelings about his situation, despite his refusal of help in the specific areas. Contacts were gradually tapered since these seemed to be little help offered which was acceptable to him.

Previous to hospitalization, the patient had been a clerk in a large commercial office. He made known his desire for a change of occupation at the physical medicine ward rounds. He was told of the facilities offered in the different therapy departments. The patient chose carpentry. Upon reaching class IV status, he began preparing for this trade in the Manual Arts Therapy Clinic.

He was discharged with a clinical status of apparently arrested tuberculosis. He had been hospitalized ten months.

This is a case in which the major area of concern
was outside the hospital. The many problems arising out of patient's unsanctioned marriage are all emotionally loaded and appear to have made the patient very hostile and negativistic, so that he is totally blocked as far as accepting help from the social worker with the varied difficulties that seemed to exist.

When we consider that the majority of minimal cases were in the hospital six months or less, it would seem that this patient's emotional state reacted adversely on the tubercular condition. Even upon discharge the clinical status was only apparently arrested.

Other ailments and handicaps besides tuberculosis hindered the recovery of some patients. In a few instances the concurrent condition presented a more serious medical problem than the tuberculosis. Oftentimes, they made recovery and rehabilitation more difficult insofar as they were responsible for the postponement or cancellation of considered surgery. They limited, curtailed, and even precluded the use of physical medicine facilities and services, and diminished patients' capacity to use social services effectively.

Mr. A. is a 31 year old married man. He has one child. He was admitted to the hospital with a diagnosis of minimal tuberculosis. The course of the disease was uneventful. After the positive culture was returned, the patient was started on chemotherapy. Following this course of medication,
he was graduated through the diagnostic classes, attaining class IV a short time before discharge.

Major attention was centered on patient's complaint of severe chest pain. Various function studies ruled out gastro-intestinal and neurological difficulties or cardiac disorder. At times the pain was of a nagging character, and at other times excruciating and accompanied by severe apprehension. Because of the patient's personality, characterized by a tendency to excessive worry and attention to minor details, it was felt by all consulting physicians that the patient's trouble was psychogenic. This opinion was confirmed by the Consulting psychiatrist. The patient intellectually accepted the explanation of the genesis of this chest pain, but not emotionally. It was felt that the psychosomatic symptoms antidated tuberculosis, although perhaps aggravated by it.

The patient's home was in Louisiana. Hospitalization had necessitated his giving up a small watch making business which he owned, and leaving his wife and child behind. He was much concerned about his illness and the implications of it. He seemed ambivalent about the hospital course in relation to treatment possibilities, and hated the idea of spending a long period in the hospital. He also showed concern over the family's financial situation. An initial compensation claim was rejected, but a second attempt was successful and he was granted a 100 percent service-connected rating. The patient had been very much preoccupied with his disability status, and the receipt of the 100 percent rating helped to relieve much of his anxieties.

Although the worker felt that there had been little success in getting at the core of the questions that seemed to bother the patient, there had been evidence of increasing freedom on his part to discuss his affairs and their implications. It had been consistently apparent that the illness itself, the necessity for his giving up his business, and the distance from his family had created much tension and many problems for him. It seemed important for him to have much supportive help as he was willing to accept.

On physical medicine ward rounds, the patient expressed a desire to engage in occupational therapy. On the ward activities for diversional purposes were provided. Later, upon being placed in
Class IV, the patient was referred by the physician to the watch repair section of the Manual Arts Therapy Clinic.

Patient was hospitalized twelve months. He was discharged with a specified clinical status of arrested, having received maximum hospital benefit.

This case shows that the major problem seemed to have been of a psychosomatic nature, and more attention was directed toward this condition by the medical authorities than the tubercular condition. This patient's great concern about the illness seems to give rise to a somatization reaction. He externalizes his intense feelings and fears by somatic complaints of chest pain and malaise.

The whole hospital course is complicated by outside problems. For one, there is separation from wife and family. The geographical distance precludes hospital visits from them. Again the necessity of having to give up his business made for a lot of tension. These and other problem areas contributed to the patient's lack of mental tranquility. The situation was further complicated by his poor use of casework services offered. Thus that recovery and rehabilitation was retarded may be evidenced by the fact that his minimal condition required twelve months of hospitalization.

Since bed rest was the basic treatment for tuberculosis, the failure to follow this treatment faithfully presented a problem. However, most patients accepted and
were faithful in following this prescribed regimen. A few had difficulty accepting bed rest, but, nevertheless, made fairly good use of this treatment. But a few, unfortunately, accepted bed rest half-heartedly, and carried out the recommendation poorly.

Surgery for three patients was considered by the medical staff at the Chest Clinic Conferences, but it decided against the operations. In one case the decision not to operate was due to other medical problems and implications, and in the other two cases, domestic turmoil was the deterring factor.

Physical medicine is an integral part of a well organized rehabilitation program. Utilization of the facilities and services of the different physical medicine clinics was made on prescription from the physician. The activities carried on by these clinics had definite therapeutic value. A number of patients were not referred to these clinics because there was no evident need of it. Yet, a few other patients who were referred refused the services offered. Those patients appeared to be persons who could benefit much from those services, especially those offered by Occupational Therapy and Manual Arts Therapy.
CHAPTER VI
SUMMARY AND CONCLUSIONS

This has been a study of the problems encountered in the attempt to rehabilitate seventy-two veteran-patients hospitalized at Cushing Veterans' Administration Hospital for pulmonary tuberculosis, during the years 1948 to 1951 inclusive. An attempt was made to give, also, the extent of the services which the patients utilized during their period of hospitalization.

The findings in the study were based entirely on recorded material. The writer concerned himself with only three disciplines: The Tuberculosis Service, the Social Service, and the Physical Medicine Rehabilitation Service. The writer posed the following questions:

(1) What problems were confronted in treatment of these patients.
(2) What was the role of the Tuberculosis Service, the Social Service, and the Physical Medicine Rehabilitation Service in the rehabilitation process.
(3) What were the factors which hindered this rehabilitation process.

The study revealed that eighteen of the seventy-two patients were admitted to the Tuberculosis Service with
minimal tuberculosis. This points vividly to the great need of early diagnosis through case finding. Many of these minimal cases were admitted to the General Medical Service originally, but routine function studies disclosed the presence of tubercle bacilli and they were transferred to the Tuberculosis Service.

Seventy-five percent of the patients were admitted with an advanced stage of tuberculosis.

All of the patients were treated with bed rest.

Seventy-one percent of the patients received chemotherapy.

None of the minimal cases received surgery, and thirty-three advanced cases did—54 percent of the moderately advanced and 75 percent of the far advanced. The far advanced cases received proportionally more surgical operations than the moderately advanced.

The surgery most often performed was thoracoplasty, next was pneumoperitoneum.

The study revealed that 30.5 percent of the patients had a condition that showed activity at discharge. Most of these patients were irregularly discharged.

Seventeen cases (26 percent) reached a clinical status of arrested tuberculosis.

Of the seventy-two patients studied, forty-one were discharged with maximum hospital benefit, while thirty-
one were irregularly discharged. Discharges against medical advice predominated. Minimal cases showed the highest percentage of discharges with maximum benefits, and the far advanced cases the lowest.

It is significant that the patients with a minimal condition seemed to have made the best adjustment to the hospital course and regimen, and thus derived maximum benefits in a relatively short time. Excluding one patient who left the hospital against medical advice, over 55 percent of the eighteen patients with minimal conditions were in the Tuberculosis Service less than six months. This group had far fewer irregular discharges than those patients with advanced stages of tuberculosis, especially those patients with a far advanced condition.

It was found that whereas the patients with a minimal condition appeared to be the best adjusted to the hospital treatment, conversely those with a far advanced condition were the least adjusted, and the moderately advanced patients being intermediate. It is among the patients whose condition was at an advanced stage that the greatest proportion of irregular discharges was found, and least benefit from hospitalization. Whereas 83 percent of the minimal cases received maximum hospital benefits, only 19 percent of the far advanced cases did. A partial explanation of this lies in what has been shown to be detrimental personality
factors, and the greater number of emotional and socio-economic problems evident in these advanced cases.

Thirty-nine patients were referred to Social Service within the first month of admission to the Tuberculosis Service, fifty-six, or 78 percent, were referred within the first three months. Twenty-five patients were referred as a result of reception contact; this was the source of the most referrals, with physicians second.

The service most often rendered by Social Service was referrals to other agencies. This was done in all cases of irregular discharges for follow-up purposes. Support and/or reassurance was also a service often given.

The Physical Medicine Rehabilitation Service rendered services to thirty-six patients, thirty of which received occupational therapy.

The study revealed that irregular discharges presented the greatest problems in rehabilitation. Thirty-one patients were irregularly discharged. Those patients not only created problems by leaving the hospital before maximum benefits had been achieved, but they also presented other problems during their hospitalization. As a group, they were the ones who were the least able to accept bed rest and hospital procedure; they were less amenable to casework; and they made the least use of physical medicine facilities.

Ten of these irregularly discharged patients did
not benefit from hospitalization. This is 14 percent of the total number of cases studied. The clinical status of those patients at the time of discharge was unchanged. It was found that several of these suffered from mental disorders.

There were also many patients discharged irregularly with an improved but still active condition, the improvement and activity varying in degree. Thus, the study revealed that almost one half of the irregularly discharged patients had a tubercular condition which still showed activity. Every one of these patients was referred to outside agencies for follow-up.

Concurrent ailments, diseases, and handicaps were also found to be a hindering factor in the recovery and rehabilitation of the patients who had them. These conditions made reclamation more difficult insofar as they were responsible for the postponement or outright cancelling of considered therapeutic measures; limited, curtailed, and precluded the use of physical medicine facilities and resources; and, especially, in the case of those patients with psychiatric problems, casework was made less effective and often was totally frustrated.

Some patients were unable to accept the need for bed rest, the prime requisite in the treatment of tuberculosis. This was a serious problem.
The study revealed also that other patients vitiated and possibly retarded recovery and rehabilitation by their refusal to accept surgery.

Approved:

Richard E. Conant
Dean
SCHEDULE

1. Age;
2. Marital status;
3. Medical diagnosis at admission to the hospital;
4. Types of treatment received;
5. Hospital course;
6. Social Service:
   a) Problems presented by patients
   b) Attitudes about illness
   c) Services rendered
7. Physical Medicine Rehabilitation Service:
   a) Clinics used
   b) Services rendered
8. Length of time in the hospital
9. Type of discharges received
10. Clinical status at discharge
GLOSSARY OF TERMS ON TUBERCULOSIS
USED IN THIS STUDY

ANTIBIOTIC: An antibacterial substance of biologic origin.

APPARENTLY ARRESTED: Lesion apparently healed; sputum negative with no evidence of activity for a period of three months.

ARRESTED: Lesion has remained healed, and patient has been under moderate physical activity for at least six months.

CHEMOTHERAPY: The treatment of disease by administering chemicals which affect the causative organism unfavorable, but do not injure the patient.

COLLAPSE THERAPY: The treatment of pulmonary tuberculosis by operative immobilization of the diseased lung.

EDUCATIONAL THERAPY: The use on medical prescription of educational courses in the treatment of patients to assist in restoring them to the fullest mental and physical capacity with their abilities and disabilities.

IRREGULAR DISCHARGE: A release from the hospital for a reason other than maximum hospital bene-
fit.

LOBECTOMY: Surgical removal of a lobe of any organ or gland.

MANUAL ARTS THERAPY: A form of treatment which helps patients to develop capacity to meet the physical demands which are characteristic of several occupations in the mechanical trades, industries, or agriculture.

METRIC TREATMENT: Activity undertaken for the purpose of measuring and evaluating work tolerance of the patient so as to increase the tolerance.

OCCUPATIONAL THERAPY: Any activity mental or physical, medically prescribed and professionally guided to aid patients in recovery from disease or injury.

PAS: (Para-aminosalicylic Acid) A chemotherapeutic agent.

PHYSICAL THERAPY: The treatment of disease by physical (non-medical) means, such as heat, massage, water treatment, exercise, radiation and electricity.

PHRENICOTOMY: Severance of the phrenic nerve, thus allowing the diaphragm to rise against the lung.
PNEUMONECTONY: Removal of a lung.

PNEUMONOLYSIS: Separation of an adherent lung from costal pleura.

PNEUMOPERITONEUM: Injection of air into the abdomen, forcing the diaphragm against the lung.

PNEUMOTHORAX: The introduction of air into the pleural space in order to cause a contraction of the lung.

QUIESCENT: Lesion retrogressive; sputum negative or positive, these conditions existing for a period of two months, during which time patient has been ambulant.

SEGMENTAL RESECTION: Major surgery other than pneumonectomy and lobectomy.

THORACOPLASTY: Removal of several ribs to permit the chest wall around the sick lung to collapse.

TONIC TREATMENT: Pastime, diversional activity.
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