R E P O R T R E S U M E S

ED 016 101 VT 004 062

THE REMOTIVATION OF CHRONIC SCHIZOPHRENIC MEN PATIENTS THROUGH THE USE OF "WORK CONDITIONING" IN HOSPITAL WORK AREAS. FINAL REPORT.

BY- FAIK, GEORGE AND OTHERS
HAWAII STATE HOSPITAL, KANEOHE

PUB DATE 66

EDRS PRICE MF-$0.50 HC-$3.28 80P.

DESCRIPTORS- *VOCATIONAL REHABILITATION, *EMOTIONALLY DISTURBED, *PSYCHIATRIC HOSPITALS, MALES, SCHIZOPHRENIA, *WORK EXPERIENCE, EXPERIMENTAL GROUPS, CONTROL GROUPS, COMPARATIVE ANALYSIS, VOCATIONAL ADJUSTMENT, EMPLOYMENT FOLLOWUP STUDIES, HAWAII STATE HOSPITAL, WORK CONDITIONING,

THE PROJECT SOUGHT TO ESTABLISH VOCATIONAL ASSESSMENT PROCEDURES, PROVIDE A WORK CONDITIONING PROGRAM TO INCREASE WORK POTENTIAL, AND PROVIDE AFTERCARE SERVICE AND FOLLOWUP. THE MAJOR HYPOTHESIS WAS THAT PATIENTS GIVEN A PROGRAM OF WORK CONDITIONING WERE MORE LIKELY TO BE PLACED IN WORK SITUATIONS IN THE COMMUNITY AND TO REMAIN LONGER OUTSIDE THE HOSPITAL THAN CONTROL GROUPS, ONE HAVING ONLY REGULAR HOSPITAL PROCEDURES AND THE OTHER HAVING ONLY VOCATIONAL SERVICES. CLIENTS IN BOTH GROUPS OF THE REHABILITATION PROJECT FOUND EMPLOYMENT IN THE COMMUNITY, BUT THE DIFFERENCE IN NUMBERS EMPLOYED WAS NOT SIGNIFICANT. HOWEVER, THE NUMBER EMPLOYED IN THE VOCATIONAL SERVICES ALONE GROUP WAS SIGNIFICANTLY MORE THAN THAT IN THE REGULAR HOSPITAL PROGRAM GROUP. THE HOSPITAL RETURN RATE WAS 50 PERCENT FOR THE REGULAR HOSPITAL PROGRAM GROUP, 19 PERCENT FOR THE GROUP RECEIVING BOTH WORK CONDITIONING AND VOCATIONAL SERVICES, AND ONLY 14 PERCENT FOR THE GROUP RECEIVING VOCATIONAL SERVICES ALONE. WORK CONDITIONING DID NOT INCREASE THE POTENTIAL FOR DISCHARGE OF THE PATIENT OR HELP PROLONG HIS STAY IN THE COMMUNITY. WORK CONDITIONING PER SE MAY BE A NEGATIVE FACTOR IN THE SPEEDY DISCHARGE OF THE CHRONIC SCHIZOPHRENIC PATIENT. RESULTS INDICATE THAT VOCATIONAL REHABILITATION SERVICES PLUS FOLLOWUP IS THE MORE EFFECTIVE TREATMENT AND DESERVES FURTHER CONSIDERATION IN PLANNING FOR CLIENT REHABILITATION. IT WAS RECOMMENDED THAT THE EFFECTIVENESS OF HOSPITAL WORK AREAS BE INCREASED THROUGH INSERVICE TRAINING OF WORK SUPERVISORS TO MAKE JOB TRAINING REALISTIC IN TERMS OF ACTUAL EMPLOYMENT POSSIBILITIES AND THAT THE CUSTODIAL ATTITUDE OF HOSPITAL PERSONNEL BE REDUCED. (JK)

FINAL REPORT

PROJECT NO. RD-891

REMOTIVATION OF CHRONIC SCHIZOPHRENIC MEN PATIENTS THROUGH THE USE OF "WORK CONDITIONING" IN HOSPITAL WORK AREAS

DEPARTMENT OF HEALTH

MENTAL HEALTH DIVISION

HAWAII STATE HOSPITAL

KANEOHE, HAWAII

1966

THE REMOTIVATION OF CHRONIC SCHIZOPHRENIC MEN PATIENTS THROUGH THE USE OF "WORK CONDITIONING" IN HOSPITAL WORK AREAS *

Final Report Prepared by: HAWAII STATE HOSPITAL

George Paik, ACSW
Project Director

David M. Murata, OTR
Project Coordinator

Kenneth O. Sanborn, Ph.D.
Research Psychologist

George J. Moravec
Vocational Rehabilitation
Counselor

* This investigation was supported, in part, by a research demonstration grant # RD-891, from the Vocational Rehabilitation Administration, Department of Health, Education, and Welfare, Washington, D.C. 20201

TABLE OF CONTENTS

FORWARD

It is gratifying to have the opportunity to comment on this study. This project brings to bear the services of vocational rehabilitation to a long neglected area - the rehabilitation of psychiatric patients particularly those in mental hospitals.

This study was done on male schizophrenics who were all considered to be chronically regressed. The assessment of the problems of each patient or client was done by using a group of qualified individuals. The study utilized approximately normal job demands in terms of jobs being done by patients in the hospital. The project tested the hypothesis that patients given a program of work conditioning are more likely to be placed in job situations in the community and remain longer outside the hospital than patients in a match-controlled group who do not engage in a preliminary program of work conditioning; all other factors remaining the same. In addition, they tested the hypothesis that patients who are provided with vocational rehabilitation services are more likely to remain longer outside of the hospital in work situations than patients in a match-controlled group. They also explored the soundness of a hypothesis to the effect that there would be a significant increase in the work performance in patients who received the program of work conditioning and vocational rehabilitation services with a follow-up in comparison to patients in a program where only vocational rehabilitation services were provided. The fourth hypothesis which was studied in this project was that there would be significant improvement in work behavior of patients in a program of work conditioning and vocational rehabilitation services with follow-up compared to clients where they only received vocational rehabilitation services and their follow-up.

The study indicates that work conditioning serves as a suppressor variable on rehabilitation effects when administered in conjunction with vocational rehabilitation services and follow-up services. The study suggests that vocational rehabilitation services and follow-up alone is the more effective approach and deserves further consideration in planning for patients' rehabilitation. They report that work conditioning appears to have the effect that patients with high motivation to go out may interpret the project as preventing them from going out immediately. They comment that "it may be that the low level jobs in the hospital with institutional-oriented supervisors may not fit in with the patient's idea of 'going out'".

This study provides some very interesting insights in the area of the rehabilitation of psychiatric patients and provides some useful guidelines so that vocational rehabilitation services can be brought to bear with maximum efficiency in the rehabilitation of psychiatric patients.

Hawaii State Hospital
Kaneohe, Hawaii

JOSEPH LERNER, M.D.
Medical Administrator

PREFACE

The value of Industrial Therapy in the State Hospital's Treatment program is many times not fully understood, nor appreciated by Clinical staff members. VRA Project 891 has developed some techniques of assessments and utilization of work areas which may be helpful to Clinical Staff members to better understand and use more effectively Industrial Therapy as a modality of treatment for the mentally ill adult.

The results of this study should aid other investigators of rehabilitation programs for chronic patients to re-examine project goals and provide some guidelines in the implementation of introducing vocational rehabilitation services in their respective institutions. The cooperation of both private and state agencies should provide additional manpower and resources for the treatment of mentally ill adults, since many state hospitals are faced with shortages of staff and inadequate budgets for rehabilitation programs.

The project staff wishes to acknowledge with appreciation the encouragement and support of the staff at Hawaii State Hospital. The cooperation of the following agencies: State Vocational Rehabilitation Office, Oahu Division of Vocational Rehabilitation, State Employment Services, Goodwill Industries of Honolulu, and the Salvation Army Men's Social Center, whose willingness to participate provided the community experiences for our clients.

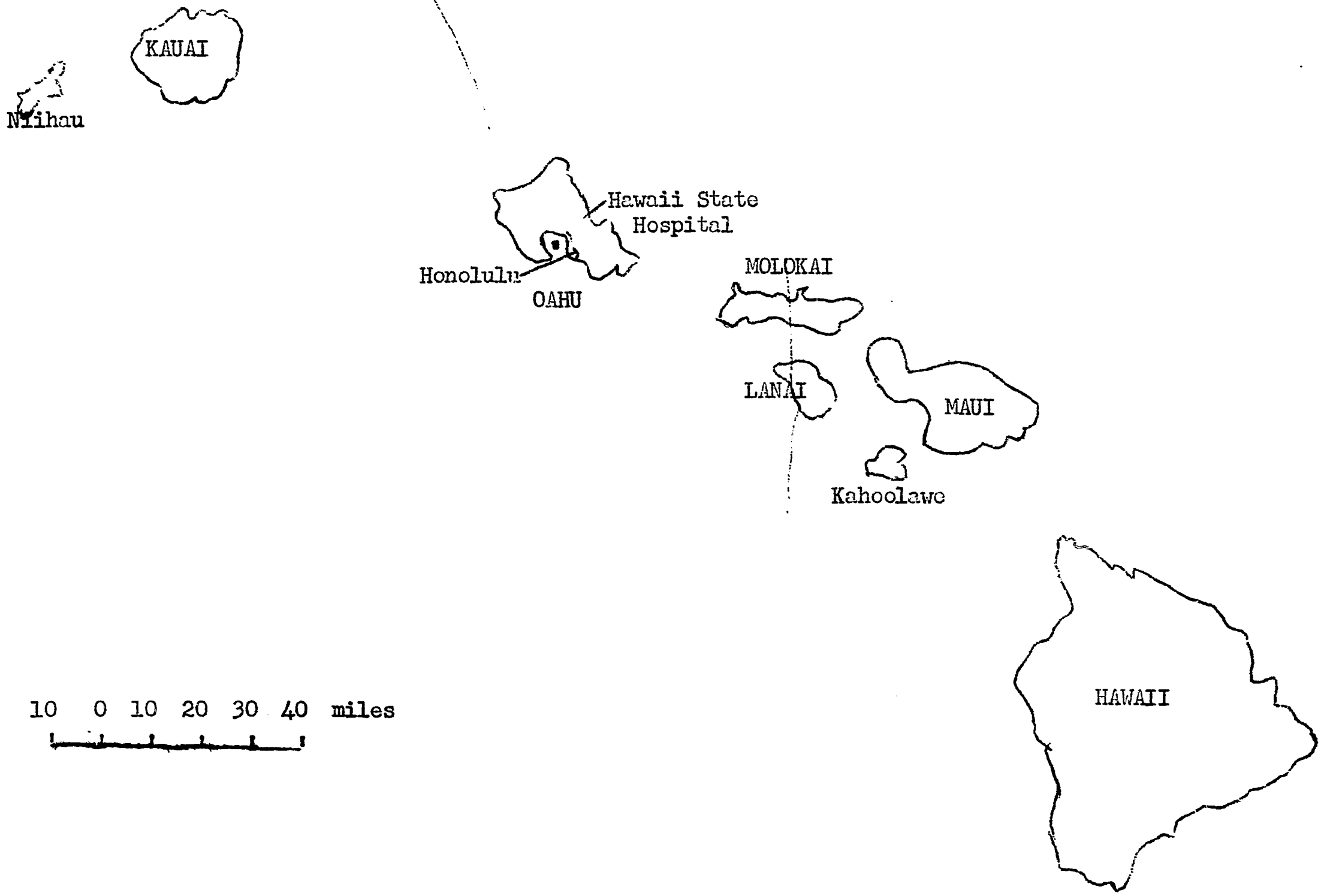
Special acknowledgements of appreciation to the following clerk-typists of the project, Mrs. Charlotte Fung, Mrs. Eileen Edwards, and Mrs. Janet Huihui, for their untiring efforts and dedication to the clients and project.

Kaneohe, Hawaii

George Paik, ACSW
Project Director

Figure 1

STATE OF HAWAII - PRINCIPAL ISLANDS, & COUNTIES



CHAPTER I

Introduction

Hawaii, which on August 21, 1959, became the newest state in the Union, is the fourth from the smallest in land area, being larger than Rhode Island, Delaware, and Connecticut. It is unique in that it is separated from all the other states by more than 2,000 miles of open sea and its four principal counties being separated by wide open channels of international waters.

The State of Hawaii extends from Kure Island, 1,367 statute miles northeast of Honolulu Airport (on the Island of Oahu) to the Island of Hawaii, 214 miles southeast of Honolulu Airport. South Point which is located on the Island of Hawaii is the southernmost point of the United States.

Honolulu (located on the Island of Oahu) is the capital of the State of Hawaii, and its chief center of population is 2,782 miles from Anchorage, Alaska; 2,397 miles from San Francisco; 5,214 miles from Panama; 3,847 miles from Tokyo; 5,293 miles from Manila, Philippine Islands; 2,714 miles from Tahiti. The State is thus advantageously located as a meeting place for East and West and is sometimes described as the melting pot of many national and racial groups.

In the midst of what many consider "Paradise," we too are faced with a problem common to State mental institutions throughout the nation--treatment programs for the long-hospitalized patient.

Hawaii State Hospital

Hawaii State Hospital, located in Kaneohe on the Island of Oahu, is the only public mental hospital in the State. The Hospital is certified by the Central Inspection Board of the American Psychiatric Association and is fully accredited by the Joint Commission of Accreditation of Hospitals

of the American Medical Association.

It serves three major functions:

a. In-patient care for voluntary and committed mental patients, alcoholics, and addicts from all parts of the State, and for Veterans Administration and military service patients, either on a fee basis or without charge;

b. Training for psychiatrists, psychologists, psychiatric social workers, occupational therapists, and affiliating student nurses;

c. Research related to patients and services in the Hospital.

In spite of increasing responses of regional clinics and the availability of short-term care for emotionally ill patients in general hospitals, the number of admissions to the Hawaii State Hospital has continued to increase. Over 40% more patients were admitted during 1964 than 1959. The majority of these patients recover within a few months and are able to return to their homes and communities. Yet, a significant proportion, 17% of a recent cohort study, do not leave the Hospital even after a four-year period. Six-hundred-thirty-five patients between the ages of 25 and 65 have not been discharged after a period of hospitalization extending from one to thirty years.

This large group of patients who remain in the Hospital fall in the following categories:

a. The chronically psychotic patient;

b. The dependent, institutionalized patient who is no longer overtly ill; and

c. The organically ill and elderly patients.

In view of the increasing population of the State and growing community awareness of psychiatric problems, a combination of factors that has resulted in the increased admission rate, greater demands are being made

on the professional staff. These demands arise not only for the treatment of recently admitted patients but for increasing involvement with community agencies in preventive efforts and for the provision of intermediate types of care, such as day and night hospital plans. To make these services more readily available to communities, the Hospital was decentralized during the 1964 year, into five smaller semi-autonomous units. Each unit cares for patients from a particular geographical area of the State, an area that corresponds to the location of regional mental health clinics. This decentralized organization was adopted to allow for stability of staff-patient contact, for increased community support and, more importantly, has focused clinical attention to a number of long-stay patients who formerly would have been without the benefit of an effective treatment program.

This decentralized effort and its expectant advantages will likely result in further decrease in the Hospital population during the next few years. In September, 1966, 702 patients resided in the Hospital in comparison to 1,240 patients in 1961.

The ages and length of stay of the present Hospital in-patient population of more than one year is illustrated below (the length of stay includes time both within the Hospital and on conditional discharge status):

Time on Books	Under 25 Yrs.	25-45 Yrs.	45-65 Yrs.	Over 65 Yrs.	Total
1 - 4 yrs.	21	77	53	25	176
5 - 20 yrs.	5	177	127	72	381
Over 20 yrs.	0	24	177	73	274
	26	278	357	170	831

Treatment programs throughout the units involve management of psychiatric syndromes in recently admitted and actively disorganized patients, with little involvement of the long-term non-psychotic patients who remain

relatively aloof from staff. This latter group of patients currently devote the major portion of their waking hours to working in the Hospital industries or service areas.

Facilities and Staff

Population of the State and Hospital.

The State of Hawaii has more than 700,000 people scattered over six major islands, comprising four counties.

Islands - Counties	Population	Distance from Oahu
Oahu	520,999	---
Hawaii	60,649	260 air miles
Kauai	27,982	102 " "
Maui County*	53,653	102 " "

(*Includes Islands of Lanai and Molokai)

The State population is expected to increase by 13% during the next five years. Most of this increase will occur on Oahu, which is the City and County of Honolulu.

The population of the State is ethnically diverse: 32% Japanese, 32% Caucasian, 14% Part-Hawaiian, 6% Chinese, 11% Filipino, 2% Full-Hawaiian, and all others including Puerto Ricans, Negro and Korean 3%. The predominant religions are: Roman Catholic, Mormon, Buddhist sects and Protestant groups. Major income is derived from sugar, pineapple, tourism, military services, and construction.

CHAPTER II

The Problem

A major difficulty for men patients on "continuous treatment wards" of a State hospital is that they have either lost or have never acquired the ability to tolerate a work situation outside the hospital. Persons in the community who assume responsibility for the patient have been reluctant to accept or retain a patient outside of the hospital who has not had sufficient opportunity to demonstrate improvement in independent work skills within the hospital. Also, the high rate of readmissions to the hospital is attributed to the difficulty of independently facing the dual condition of adjustment to living and to work.

In recognition of the needs and problems of the chronic hospital population (both locally and nationally), the Hawaii State Hospital proposed a Vocational Rehabilitation Research-Demonstration Project which was approved by the Vocational Rehabilitation Administration in 1962. To meet the problem, the proposal outlined a project to be developed within the hospital to evaluate work functioning and to develop worker competence while not being subjected to the pressure of a competitive job situation in the community. The project was designed to meet these identified needs by focusing on three primary goals:

a. To establish within Hawaii State Hospital, vocational assessment procedures;

b. To provide a program of work conditioning designed to increase work potential in patients identified as chronic schizophrenics.

c. To provide adequate aftercare service and follow-up, including job placement, training, and assistance in making community adjustment.

Theoretical and Practical Considerations (Rehabiliatation of Chronic Patients)

As yet, no consistent theory of vocational rehabilitation of mental patients has emerged either from the vocational field or State hospitals. At the beginning the project staff was motivated more by practical administrative considerations than by theoretical considerations. The large numbers of chronic patients who were given up as hopeless; the need for making meaningful the term "industrial therapy;" the need for more information about patients returning into the community; and the need to dramatize what could be done if proper follow-up was provided all set the stage for the design of the project.

Additional motivation came from knowledge of the results of studies such as the famous Hawthorne Study: that anything tried with the patients, as long as it directed more attention to the patient, would be successful. Moreover, there was a desire to demonstrate a degree of project success and to have some understanding of what the practical procedures were that had brought about the success. Hence, a study was designed with built-in controls that would help gauge the results.

Another important factor in the planning was the idea that if patients were treated more like normal persons rather than patients, they would respond with more normal behavior, hence the efforts to use a modern supervisory technique of critical incidents for counseling with the patients. Any success in making the hospital working place more like its counterpart in the outside world was considered to be a factor in assisting the rehabilitation of project patients.

Another assumption was that by forming closer relationships with the patients and recognizing them as individuals with dignity and potential, this recognition would increase patient motivation.

Finally, it was recognized that the patients were often socially retarded, dependent, and from a marginal economic background. We did not want to remake them into our own image but we did want to assist them in their efforts to return to the community and to follow them regularly in their initial placements and to help build bridges between the patient and the community. This meant doing a lot for patients that non-patients might do for themselves. Nevertheless, we felt that getting the patient started firmly in his new life would go a long way toward having him continue in it and not return to the hospital.

The plans of the project involved the following goals to meet the theoretical and practical considerations:

A Controlled Study:

Use of the existing work areas of the hospital to improve work behavior;

Concentration of critical incidents of patient behavior as a focus of attention;

Close personal attention from the project staff;

Regular follow-up service from the VRA counselor.

Related Work and Studies

The emphasis of the project was to provide a systematic work conditioning procedure to meet the needs of the long-hospitalized chronic men patients. A description of the program of the Vocational Adjustment Center in Chicago by Gellman[1] and his associates strongly influenced the design of the project. As Gellman points out, "The mere possession of acquisition of a useful work skill is not sufficient condition for employment . . . there are many psycho-social barriers to employment which the handicapped worker must be helped to overcome."[2]

---

[1]Gellman, William, et al, "Adjusting People to Work;" Jewish Vocational Center, Monograph No. 1, 2nd Ed., Chicago, June 1961.

[2]Ibid

The Vocational Adjustment Center program concerned itself with those aspects of gainful employment which involved a "process of adjustment" and centered its effort around the individual and his ability to integrate his own feelings, attitudes, and aspirations to his co-workers and supervisor. The findings of the Vocational Adjustment Center study in a sheltered workshop setting were adapted for use with chronic schizophrenic patients in a hospital work setting at Hawaii State Hospital.

A significant difference in the Hawaii State Hospital Project is the adaptation and use of existing hospital work settings as well as the orientation and training of work supervisors to provide work conditioning. The project benefits were two-fold:

1. Improving the existing facilities for industrial therapy;
2. Eliminating the necessity of providing additional facilities and additional staff.

The work of the Industrial Neurosis Unit, Belmont Hospital, Great Britain, described by Maxwell Jones[3] has been one of the more well known examples of the use of work situations for vocational rehabilitation. Here the effort was to rehabilitate the hard-core unemployed. The patients were relatively desocialized, chronic, unemployed neurotics who were sent to the hospital because of repeated unsuccessful efforts to place them in their communities. Rehabilitation involved employment in a community workshop for four hours a day and group therapy. The workshop approximated factory employment, attempting to duplicate conditions of work in a factory employing semi-skilled and unskilled workmen.

The program attempted to get the patients back into the "habit of work." Patients were not paid for their work but they lived in the hospital.

---

[3]Jones, Maxwell. THERAPEUTIC COMMUNITY. New York, Basic Books, 1953.

The Hawaii State Hospital Project employed two basic concepts by Jones:

a. The use of a group in dealing with client problems, and

b. The attempt to approximate normal work demands in patient hospital jobs.

In a review of 49 rehabiliation projects, Kendal and Williams[4] found that formal control groups were used in 20 projects. In seven projects patients were randomly assigned to control and experimental groups. Eight projects used matching procedures and five projects used the patients as their own control. The Hawaii State Hospital uses all three methods. Of the projects not using control groups, three attempted to form such groups, but abandoned the attempt in the face of difficulties.

Kendal and Williams point out some of the problems of dealing with control groups; the "service personnel responsible for the control patients interprets the introduction of additional services for the experimental group as a challenge to their competence, or the introduction of the rehabilitation project may lead to unplanned changes in the institution before the full impact of the program has been evaluated."

Mention is made of the classic Hawthorne experiments where the fact of paying attention to the workers proved to be more important in raising their level of production than any particular improvement of change brought about in their environment.

Fairweather[5] reviewed the literature on rehabilitation of chronic schizophrenics in 1964 and 1965. He found that research done over the past several years has shown that chronic patients tend to return to the hospital at the rate of about 70% within 18 months after leaving quite irrespective of the type of treatment received during hospitalization.

---

[4]Kendal, D.B., and Williams, R. H., PSYCHIATRIC REHABILITATION, SOME PROBLEMS OF RESEARCH, Atherton Press, New York, 1963, Chapter V.

[5]Fairweather, G.W., SOCIAL PSYCHOLOGY IN MENTAL ILLNESS, Wiley & Sons, New York, 1964

When medication is given to chronic patients in protective and less supervised situations, such as family care and day center, then relapse rate is reduced appreciable to the quite low figure of approximately 25% to 35% per year. Fairweather also studied a group of 53 patients who had been psychotic for over four years. Forty-two per cent remained out of the hospital and 38% were employed some of the time.

Ellsworth (1965) studied three groups of chronic patients. Each group received a different treatment. The doctor-centered led group released 21% of its patients who remained out at least three months; none were employed. In the staff-centered group, 16% were released and 2% were employed and the patient-centered group released 35%, again with 2% employed.

A number of studies have reported on the treatment of chronic schizophrenics. These studies are reviewed by Fairweather. A major methodological innovation of the present study is the use of a replicate group to ensure that the results are stable and repeatable.

Another unique feature of the project lies in the use of Performance Record in a hospital setting. The Performance Record designed by John C. Flanagan and Robert B. Miller, copyright 1955 by Science Research Associates of Chicago, Illinois, has been used extensively throughout the United States as a method of improving supervisory practices and employee development in industry. The program utilizes discussion around "critical work incidents," i.e., concrete happenings on the job. These critical incidents are recorded daily and the client praised or corrected immediately for his performance, thereby encouraging improvement of job skills and work habits. In addition, the Performance Record provides the data around which supervisory personnel in regularly scheduled sessions could discuss each client's work with him.

CHAPTER III

The Project Time Plan

The first task undertaken by the project team was to outline a time phase guide for the implementation of the program (Appendix i). The initial phase of program formulation required three months. Procedures for assessment and work conditioning were established, work areas were selected, and jobs within the areas identified and described. Jobs were ranked and leveled as to degree of difficulty for the purpose of assessment and used as a guide for progressive achievement steps in "work conditioning." Rating scales were developed and raters recruited. Hospital staff orientation as to the intent and program of the project was conducted. Work supervisors in the selected areas (laundry, kitchen, janitorial and yard maintenance) were instructed as to their role in the project. Patients were screened, interviewed, and selected at this time. This involved administering an intelligence test, enlisting the patients' commitment to the program, matching for assignment into the experimental and control groups. Formal case files were initiated and patients* accepted as Vocational Rehabilitation clients.

A four-week period was allotted for the assessment of clients to obtain the "before" worker profile. Four weeks was determined as time enough for each person to move through sufficient number of jobs and work areas to allow the client to try a variety of work situations and provide raters with enough different settings to observe the client to make a meaningful rating.

Immediately following the assessment, experimental group clients were assigned to work areas for "work conditioning." Following the six months of "work conditioning," the client repeated the initial assessment process for an "after" worker profile.

---

*Hereafter, the term "patient" will be dropped and VRA term of "client" will be used.

Project clients were to be followed as to their community placement status during the full duration of the project with the first report at six months and every three months thereafter. The first group completed the eight-month in-hospital program in July, 1964. The second group started in the project program in November, 1964 and completed in July, 1965.

Clients for Study

A total of 79 clients were selected for the project. An initial group of 37 clients were selected for a replicate study.

The study considered only subjects with the diagnosis of schizophrenia in an attempt to control the variable of mental illness. A population of men only was selected to keep the variable of employment potential consistent and also because of the pointed need and expectation for men to be employed as part of their role as members of the community.

The clients selected for the project were from the male "continuous treatment" wards where a majority of the "chronic" clients were housed.

Project Techniques

To study the effects of the work conditioning program, the 21 clients were matched in pairs and randomly assigned to two groups: an "experimental" group that received work conditioning and a "control" group that did not have this program. In order to compare the before and after results upon each individual and the groups as a whole, raters not directly involved in the project program were called in to do ratings of all clients at the beginning of the project and at the end of the work conditioning period.

The project utilized the hospital's Operations and Maintenance Units and also work supervisors for evaluation and work conditioning. The use of hospital work areas for industrial therapy is a practice in many State mental hospitals. The project attempted to refine and standardize vocational assessment and work training through: (a) a better definition of

each work assignment in terms of job requirement level; (b) rating procedure and scales with instructional guidelines; and (c) orientation of raters in the use of new assessment scales.

Hawaii State Hospital's work areas used in industrial therapy are essentially production oriented. The primary responsibility of the work areas has been to carry out a necessary operational service for the maintenance of the hospital. The project attempted to use these same production-oriented areas and its work supervisors (paid employees responsible for supervision of clients assigned on jobs such as dishwashing, extractor in the laundry) as primary means of implementing the rehabilitation program.

"Work Conditioning" constituted the work adjustment and training aspect of the program. Several techniques were considered in this process. One was the use of the "critical incident" method for work conditioning. Work supervisors were instructed to bring to the worker's attention any good and successful achievement at the time it occurs on the job, and also to do the same when performance or action was on the negative side. Along with on-the-spot reward or correction, the work supervisor was instructed to meet with the client to discuss his performance at regular intervals as part of the conditioning program.

Another special effort of the project, related to follow-up services in the community, was the project's vocational counselor's early involvement with patients within the hospital. Studies have shown the desirability and need for the vocational counselor to know the client well in order to provide effective services. The counselor was available to all project clients and met them at least once weekly.

Project Personnel

The project staff included the project director, project coordinator, vocational counselor, typist-secretary and a part-time psychologist as a research consultant. In order to carry out the project effectively and to introduce new concepts and procedures to the permanent staff of the hospital, assignments were made for 11 members representing the various disciplines of the hospital to provide part-time services to the project (Appendix ii - Table of Organization).

The project director was responsible for the overall administration of the project. Administrative responsibility included: recruiting of staff, personnel management, fiscal management, submitting of reports, maintaining liaison with Federal and State rehabilitation agencies and representing the project on the hospital administration level.

The formation of project procedures and implementation of the program was assigned to the project coordinator. The task entailed development and refinement of evaluation and work conditioning procedures; providing project information to hospitals and related agencies; developing relationship with community rehabilitation agencies for supportive services; supervising the work preparation and vocational planning for project clients and supervising the work of the vocational counselor and secretary.

The position of the vocational counselor was uniquely supervised by the DVR Office and assigned to the hospital. This arrangement provided more effective service for the client. Arrangement was made with the State Division of Vocational Rehabilitation for the project counselor to be a certified VR counselor, receiving training and supervision from the State DVR Office, entitling him to utilize all resources of the DVR for project

clients. The Vocational Rehabilitation counselor was the principle resource person for the work evaluation and conditioning program. He was responsible for special counselling, vocational information to the clients, helping them become acquainted with the community and its vocational resources. The counselor initiated plans to obtain Vocational Rehabilitation services from other agencies and maintained follow-up contact with the patient in the community.

The project typist-secretary performed the normal tasks of a general secretary and in addition assisted in the compilation of statistical data, printed the informative project bulletins, and assisted in arranging client meetings.

The research consultant who served on a part-time basis was an active member of the project team, sitting in on all planning meetings. He developed the research design, helped formulate the objectives, and assisted in working out methods of implementing the program.

Project Operation: "Team Approach"

The many services necessary to assist project clients in preparing themselves for discharge from the hospital and into community living made it obvious from the start that effective and comprehensive planning would be best achieved via group-developed plans. In the project the staff met to develop means of implementing the various phases of the project design. While staff members were free to independently evolve approaches and techniques, the project team freely discussed each other's recommendations. The end result was an approach or technique understood by and acceptable to the various members of the team.

Additionally, the team approach was effectively utilized in identifying problem areas on planning for individual clients. The social, educational,

vocational, and medical backgrounds of clients were extracted and summarized from hospital case records and shared with all members of the staff. The discussions of these summaries provided an insight into the ways the client had dealt with his life problems and suggested a rehabilitation plan.

Hospital Staff Education and Orientation

The successful implementation of the in-hospital phase of the project depended heavily upon the support and cooperation of the hospital's permanent staff members. Prior to the involvement of clients in the project, an effort was made to inform the total hospital about the project. Orientation sessions were scheduled with wards, professional disciplines, service section, and maintenance units.

When it was apparent that meetings with the various groups could not be maintained on the on-going basis, the circulation of a monthly project information bulletin was started. The "VRA Project Bulletin" provided a means to report on project progress and also offered an opportunity to share rehabilitation concepts (Appexdix iii). The original intent of the bulletin was to keep the hospital staff informed about the project and circulation was confined to the hospital. Vocational Rehabilitation counselors and other community agencies indicated interest in being kept informed about the project and the mailing list was expanded to include agencies throughout the State.

Extended Service

One of the primary objectives of the project in meeting the need of the long-hospitalized client returning to the community was to provide assistance in job placement. Members of the project team agreed to serve on private and public Rehabilitation committees and other related groups with the intention of making the needs of the psychiatric client known and to aid in the development of community rehabilitation resources. Some of the

Rehabilitation groups included: The Governor's Committee for the Employment of the Handicapped; Mental Health Association of Hawaii, Education Committee; Oahu and State Comprehensive Mental Planning (several subcommittees); Associated Workshops of Hawaii; and Lanakila Crafts Committee on Program. Association with these active Rehabilitation groups not only familiarized the project team with available community services but provided opportunity to actively engage in development of new services and programs for the needs of the psychiatric patients.

When the project got underway, some of the State tuberculosis sanatoriums with declining patient census created psychiatric units to accommodate State Hospital clients who were on convalescent or "chronic" custodial status. These hospitals included: Maholona Hospital located on the Island of Kauai, Hilo Hospital on the Island of Hawaii, and Kula Sanatorium on the Island of Maui. Since the patients being transferred to these hospitals were part of the population the VRA project intended to serve, the possibility of extending the project program to these hospitals was explored. Several trips were made by members of the team for this purpose. These hospitals were in the initial stages of accommodating psychiatric patients and were not prepared to implement the kind of program proposed by the VRA Project. The project team did have the opportunity, however, of sharing information on vocational assessment and adjustment training which was new to some of the staff of these hospitals.

In 1963 the follow-up Governor's Conference for the Rehabilitation of the Mentally Ill Adult, a report of the job survey for handicapped adults was presented which proposed the formation of a special committee in the community whose goals were similar to the goals of the Advisory Board for the VRA Project. The Advisory Board was to be composed of business leaders of the community interested in the Rehabilitation programs for the mentally ill.

Anticipating the possibility that many of the project population would seek employment in services and unskilled occupations, the board would consist of representatives from firms offering numerous job opportunities in such occupations. Also, the Board was to assist the project team in suggesting employment outlets for those considered ready for competitive employment. They would also serve as a moderating influence on overly enthusiastic and unrealistic goals set for patients. Because of the similar goals, a joint effort was made for the formation of a community committee, and the Advisory Board for the project was dropped. In 1964, with the re-organization of the Governor's Committee on the Employment of the Handicapped, a special subcommittee was formed to handle job placements for the mentally handicapped.

CHAPTER IV

Primary Hypothesis

To evaluate the effects of work conditioning, and vocational rehabilitation services* and follow-up services, four hypotheses were proposed. The first two hypotheses utilized the follow-up data gathered at least nine months after the end of work conditioning. The other two hypotheses were to evaluate change in behavior and performance after work conditioning.

Hypothesis I. Clients who are given a program of work conditioning are more likely to be placed in work situations in the community and to remain longer outside the hospital than clients in a matched control group who do not engage in a program of work conditioning; all other conditions remaining the same.

Hypothesis 2. Clients who are provided vocational rehabilitation services and follow-up services from a hospital based vocational rehabilitation counselor are more likely to be placed in work situations in the community and can remain longer outside the hospital than clients in a matched control group.

The test of the hypothesis requires three groups of clients; one receiving work conditioning and vocational rehabilitation services with follow-up; the second group receiving vocational rehabilitation services with follow-up and no work conditioning; and a third group of clients who receive neither work conditioning nor vocational rehabilitation services follow-up. The three groups were matched man to man on several variables. Group I and II took part in the assessment portion of the program both before and after the 6 month work conditioning phase; the third group was only assessed initially through I.Q. testing for intelligence.

*Vocational Rehabilitation Services means any goods and services necessary to render a handicapped individual fit to engage in gainful occupation.

The test of the hypothesis is in terms of frequency data on the number of clients out and employed at the end of the follow-up period.

The remaining two hypotheses sought to obtain information on the effectiveness of work conditioning in terms of ratings of behavior of clients in two groups; those who received work conditioning along with vocational rehabilitation services with follow-up and those who received only vocational rehabilitation services with follow-up services.

Hypothesis 3. There will be a significant increase in the measure of work performance (LWT)* for clients in a program of work conditioning and vocational rehabilitation services with follow-up compared to clients in a program of only vocational rehabilitation services with follow-up.

Hypothesis 4. There will be a significant increase in the measure of work behavior (LCAVP)** for clients in a program of work conditioning and vocational rehabilitation services with follow-up compared to clients in a program of only vocational rehabilitation services with follow-up.

The test of the hypothesis will be in terms of ratings made by raters both before and after the 6 month work conditioning period.

An additional hypothesis (5) is that the relationships obtained in testing the four major hypotheses will hold true for a second population of clients studied one year following the first group.

Initially the project focus was on work conditioning and was to be studied by comparison to a control group. To obtain the follow-up information, a vocational rehabilitation counselor was assigned for this task. To carry out his work he needed to establish a relationship with the client through vocational counselling. His work injected a new element into the study and required the addition of a third control group which did not receive either vocational rehabilitation services or work conditioning.

* Level of Work Tolerance
** Level of Congruency and Adequate Vocational Personality

This third control group was obtained for the original study and matched man to man with the other two groups. Selection problems prevented our obtaining a third control group for the replicate study.

The rationale of the study held that the more services you provided for the patient, the more success you will have in rehabilitation. Hence, vocational rehabilitation services should have more success than regular hospital routine alone. Vocational rehabilitation services plus work conditioning should be more successful than vocational rehabilitation services alone.

Selection of Sample:

Criteria for the selection of the first group of clients for the project were established as follows: Men clients from continuous treatment wards with a diagnosis of schizophrenia; total hospitalization of 5 years or longer; men with sufficient social skills for independent living and minimum residuals of psychiatric symptomotology in terms of anxiety and destructive impulses; and clients who would not be discharged within the 8 months of in-hospital work preparation.

Every ward in the hospital housing men clients were informed of the selection criteria and referral forms (Appendix iv) were distributed. The referral form composed of questions related to the criteria for selection was utilized as a means of guiding the ward staff in making appropriate referrals.

A double check was made on all referrals to see that they did meet the project criteria. Clients were then interviewed by the Project Vocational Counselor and Project Coordinator to ascertain vocational and rehabilitation motivativation and enlist them in the program. Participation was on a voluntary basis although those with ambivalent feelings were urged to try.

Participation was left on a voluntary basis because all project participants were accepted as formal D.V.R. cases and acceptance for D.V.R. services required a degree of self-motivated desire for service.

Matching criteria was then established for the purpose of matching and assigning clients to the experimental and control group. The following factors were considered for matching: age - ten year intervals; chronicity (Length of hospitalization) - starting at four years, two-year intervals; intelligence - division into high, middle and low; assessment profile score based on overall worker rating (VRA Rating Scale). (Appendix iv)

Intelligence was measured by use of a selected battery of tests used by the hospital's psychology unit to develop hospital norms. It included the Revised Beta (sub-tests 1, 5 & 6), Kent E-G-Y (Schale D), and the Shipley Hartford (Vocabulary and Abstract).

Matched pairs were then assigned to the experimental or control group by flip of coin. After establishing the experimental and control groups in the first group of clients, the inclusion of a second control group was proposed in order to study the effects of assessment and vocational placement for those not involved at all in the Project program. The ward referrals of clients for this group was according to project criteria. The second control group was matched to the pairings according to the matching criteria except no project assessment was made, and clients were not connected with the project in any way.

In 1964 an attempt to have a similar second control group with the second group of clients was not possible due to the lack of clients for matching.

Procedures:

1. Assessment

   a. Hospital Work Areas

The project was conceived as a demonstration treatment modality (technique) utilizing the environmental resources of a State Hospital to modify work behavior of the long hospitalized client to provide an image as the accepted stereotype of workers in our society. These hospital work areas were intended to serve a two-fold purpose. One of the purposes was the use of selected jobs on which the clients worked. The other was the functioning of the client on these jobs could then be evaluated for work potential. Following an evaluation, clients would then be assigned to select jobs and given a program of work conditioning to prepare them for resuming the role of workers in the community.

The project proposed the use of four work areas - janitorial, kitchen, laundry and grounds maintenance. The areas were selected primarily because they were easily identified in the Dictionary of Occupational Titles. Also it was in these areas that a majority of the working clients performed. The masculine type activities were of a sufficiently large number to admit the entry of a select group of clients without unnecessarily disrupting the existing staffing patterns. Furthermore, the areas were production oriented and could be expected to provide realistic work demands and work pressures.

The Vocational Rehabilitation Counselor was given the task of observing and describing specific jobs within each of the four work areas. Visits were made to commercial firms in the community providing similar services. The differences between the jobs in private industry and the hospital were identified to provide for a base and rationale to effect

changes in the patient-assigned hospital jobs to make them comparable. Unfortunately, the long-ingrained reluctance of hospital employees to give their charges more than a modicum of responsibility could not be surmounted "immediately." Some modifications were subsequently made as the project clients demonstrated their abilities and earned the right for greater responsibility.

The Hawaii State Employment Service also collaborated in identifying local variability from the job description contained in the Dictionary of Occupational Titles.

Of the available job assignments in each work area (with the exception of janitorial), three were chosen from those in the laundry, four in grounds maintenance, and five in the kitchen. The use of the farm work area and its four job assignments was substituted for grounds keeping with the replicate group. On grounds keeping assignments, clients and other patients generally worked with an absolute minimum of supervision, since supervisory involvement was an essential ingredient in work conditioning, a substitution was deemed necessary.

A ranking and leveling by difficulty of the selected jobs* was made in order to establish a base for measuring the maximum working capacity (Level of Work Tolerance - LWT) of each client-worker. A grading team consisting of the Operations Superintendent, the Industrial Therapy Coordinator, and the project's Vocational Rehabilitation Counselor was assembled. Team members were selected for their familiarity with all of the job assignments in the four work areas. Uniform apprecia-

*(Appendix v)

tion of the structure of each job assignment was achieved by examining and recording for each job the factors common to all jobs: working conditions; responsibilities; and mental, physical and skill requirements. Team concensus was reached on the tasks involved and the worker characteristic demands of each job.

The next step was to rank order, by difficulty of the common factors, the work areas and the job assignments in each respective work area. Composite rankings were developed from a table of frequency opinions of the grading team. The same procedure was followed in the establishment of levels of work with the team grading the hospital assignments into four levels. Jobs, in any of the four work areas, assigned a common level of difficulty were considered to be essentially equally difficult to perform in terms of the factors common to all jobs.

b. Supplementary Evaluation:

In addition to the LCAVP and LWT assessment of the patient, three other means of evaluation were used: Personal Interview; Ward Rating Scale and the Thomasat Scale.

Personal Interview: Upon referral each prospective client for the project was interviewed by a project staff member. The interviewers using a common guide questioned the candidate regarding his interest and attitude towards leaving the hospital, work, and the project. Questions regarding the project were answered at this time. The client was asked to commit his interest by filling out an application form with signature. The interview and application procedure served as another

screening test. Those who felt negative about leaving the hospital or getting involved refused to commit themselves and were not selected for project participation.

The Ward Evluation Scale*: This was an adaptation of the scale developed for the Selection of Patients for the Chronic Disease Program. The scale attempted to identify the type and degree of social relationship, psychiatric symptoms, independence, social interests and community contacts.

The ward staff was asked to complete this rating form on a monthly basis. Most of the wards could not keep up with a monthly rating of each client and for this reason a "before" and "after" rating was accepted, one at the time of project participation and one after the eight-month period. The information obtained from this scale was primarily used for vocational and discharge planning purpose.

The Thomasat Cognitive-Motor Scale: Developed at the Highland View Hospital, this scale has been successfully used as a means of predicting level of function in a workshop setting. (on a Mentally Retarded Sample). The scale was considered for use when it was apparent that a large number of persons had gross employment handicaps (e.g. inexperience, low I.Q., motor retardation, social ineptness) and would require workshop type of transitional or permanent placement. The scale was administered selectively for the first group. Administration of the scale proved to be helpful clinically when it was possible to observe and obtain significant information in the mode and reaction to task performance. The results

*(Appendix vi)

of this test were used for vocational planning and placement purposes.

2. Work Conditioning

a. Work Placement for Conditioning

The central core of the VRA Project was conceived around the concept of work conditioning as a method of preparing the client for resumption of a productive role in our work-oriented society. Initially, the emphasis in guiding the client through the program was concentrated around five areas of work behavior suggested by (A Work Therapy Research Center - OVR Research Project 641-61 Jewish Vocational Service of Chicago) as a basic to vocational adjustment; reaction to supervision; relating to co-workers; work satisfaction; reaction to work pressure; and use of abilities.

While retaining its emphasis on the five facets of work behavior, the program was modified with the second group to treat with equal importance the very fundamental requirements of acceptance on any job, namely, regularity of attendance, punctuality, observance of rules and regulations and personal appearance. Work on the development of a sense of job responsibility was not only deemed necessary for the clients but provided concrete behavioral problems the work supervisor felt more capable of coping with, than the sophisticated and more abstract problems of work behavior.

Experimental clients of the first group were assigned jobs in the four work areas for a six-month period of work conditioning. Assignments were made on the basis of demonstrated

performance in the assessment phase in order that each client be placed on a job which could challenge his ability to perform.

The attrition experienced with the first group appeared to be a product of the testing the tolerance levels via rapid movement of clients through various stages of experiences during the assessment phases and then superimposing the expectation that they perform at their highest level of ability on an assignment selected for them. To limit attrition in the second group, the period of work conditioning on job assignments for the experimental clients were made with consideration of the stress factors produced by change. Only clients working outside of the four work areas in their regular industrial therapy assignments were asked to accept job assignment changes in order to bring them into the work areas. Experimental clients already on industrial therapy assignments in the four work areas were permitted to continue their jobs after assessment.

3. Data Collection and Analysis:

a. Data Collection

Information on each client was collected on four different occasions.

First. Upon selection for the project, information on the matching variables was collected for each client. Most of this information was available in the client's hospital records. In addition, the client was interviewed and a brief intelligence measure was administered.

Second: Assessment information was gathered on clients in the first experimental and control groups. Each client was observed by outside raters during the first month of the project and rated on scales for work performance (LWT) and work behavior (LCAVP).

Third. At the end of nine-month work conditioning, each client was again rated by outside raters on the same scales.

Fourth. At the end of nine months following the end of work conditioning period, a determination was made as to whether each client was out of the hospital, in sheltered employment, or competitively employed. For the original group, the determination was repeated at 18 months following the end of work conditioning.

b. Design of the Study

(1) The study was designed to make use of control groups to discover the relative effects of different approaches to rehabilitation. The most important information came from the following data: The three main variables were compared across three groups.

At End of Follow up	Control 2 Reg. Hosp. Procedures	Control 1 Vocational Services	Experimental Vocational Services Plus Work Conditioning
No. of Patients out of Hospital	0	+	++
No. in Sheltered Employment	0	+	++
No. in Competitive Employment	0	+	++

(2) The effect of work conditioning was shown by a before and after method using a control and an experimental group. There are six ratings on each client.

(a) LWT - a measure of work performance

(b) Relations with supervisor

(c) Relations with co-workers

(d) Reaction to supervision

(e) Response to work pressure

(f) Work satisfaction

By using each client as his own control it was possible to obtain for each variable a gain score representing the number of points each man gained during the six-month work conditioning period. That is:

Experimental after score minus experimental before score equals the gain made. It may be plus showing a positive gain or minus representing a decrease in performance or behavior.

As each experimental client was matched with a control client it was then possible to compare the gain scores of each pair to test the hypotheses that the experimental client gained more than the control client.

In addition, clients who were out of the hospital and/or are employed were compared with clients remaining in the hospital.

Finally, clients were compared on several background variables: age, length of hospitalization, ethnic group, county of birth, diagnosis, education and I.Q.

CHAPTER V - RESULTS

The Disposition of Clients after the Follow-up Period

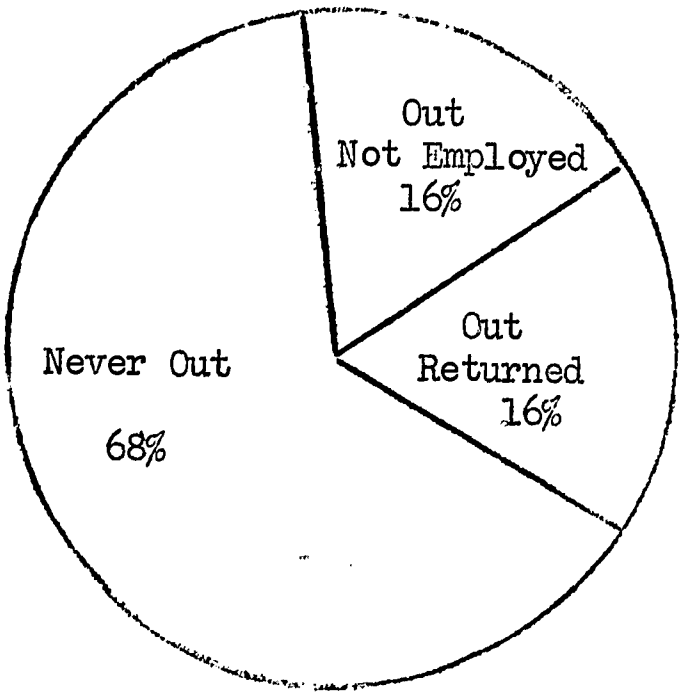
The results of the study are summarized in Table I. Of the 65 clients studied in both the original and the repeat programs, at the end of the project (18 months after the end of the original group's work-conditioning period and 12 months after the end of the repeat group's work conditioning period), 40% of the clients were out of the hospital; 12% were employed either in work training and evaluation, or sheltered workshops; and 9% were employed on full-time regular jobs. In a matched control group that received no services from the project, 16% of the clients were out of the hospital 18 months later and not one of them was employed.

Considering that the clients in the study averaged 14 years in the hospital, this is a significant finding in itself. It supports the idea that rehabilitation projects of the type reported can effect discharge rates and that chronicity is not an insurmountable problem for mentally ill adults. While few chronic clients are able to become full-time breadwinners, a significant number are able to maintain themselves in the community and make use of existing partial employment opportunities.

The first hypothesis stated that clients who are given a program of work conditioning are more likely to be placed in work situations in the community than a matched control group that does not engage in work conditioning. Comparing the clients who received work conditioning plus vocational rehabilitation services with the clients who received only the regular hospital program, it was found that about an equal number was discharged from each group. But while none of the clients in the regular hospital program found employment, 9% of the work conditioning plus vocational rehabilitation services found employment (6% were in private employment and 3% in sheltered employment). While the difference is not

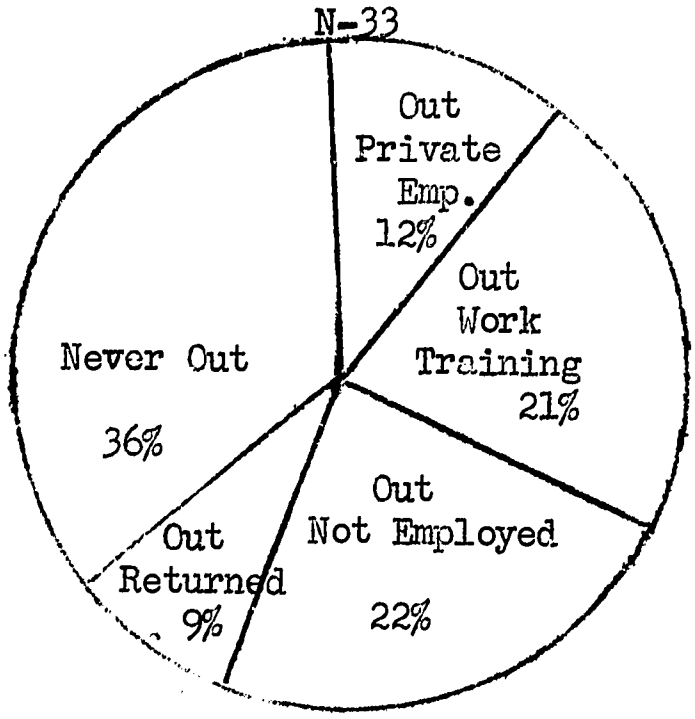
TABLE I. VRA REHABILITATION PROJECT
AT FOLLOW UP
(At 18 months for original group)
(At 12 months for repeat group)

REGULAR HOSPITAL PROGRAM
N-19



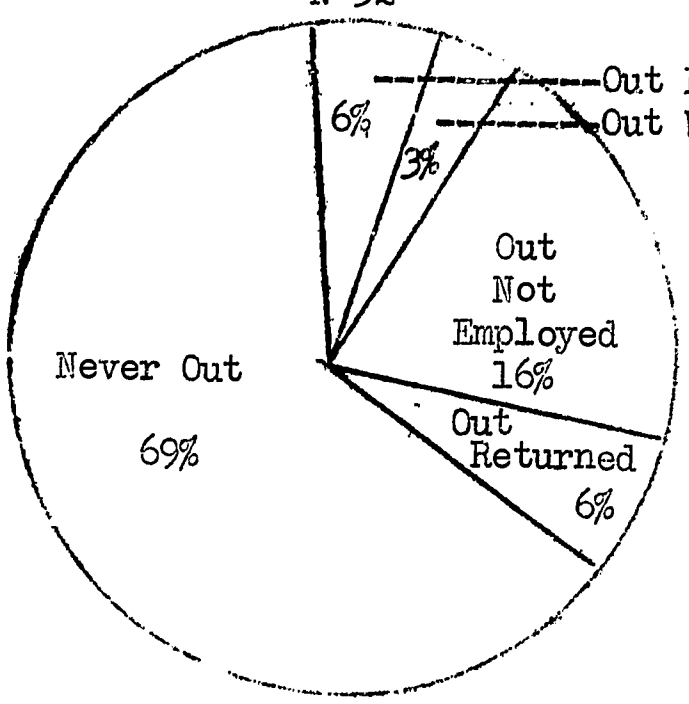
50% Return Rate
16% Out at 18 Months

VOCATIONAL
REHABILITATION SERVICES & FOLLOW UP
N-33



14% Return Rate
55% Out at 18 Months

VOCATIONAL
REHABILITATION SERVICES AND
WORK CONDITIONING
N-32



19% Return Rate
24% Out at 18 Months

Fairweather found that research over the past several years has shown that chronic patients tend to return to the hospital at the rate of about 70% within 18 months after leaving the hospital quite irrespective of the type of treatment received during hospitalization. In family care and day centers, the relapse rate drops to 30%. Ellsworth studied a group of chronic patients and found no more than 2% were employed.

significant, it is in the direction of supporting the first hypothesis.

The first hypothesis also stated that clients who are given a program of work conditioning are more likely to remain longer outside the hospital than clients in a matched control group who do not engage in a program of work conditioning. Comparing the work conditioning clients with those in the regular hospital program, the regular hospital program clients have a return rate of 50% while the work conditioning patients' return rate is only 19%. The result, while not significant, is in the direction of supporting the first hypothesis. Sixteen per cent of the regular hospital program clients remain out of the hospital at the end of follow up, while 24% of the work conditioning clients remain out of the hospital.

It must be remembered that the work conditioning group received, in addition to work conditioning, the services of a counselor for vocational rehabilitation services including follow up while the regular hospital program clients did not have these services. To determine the effects of work conditioning over and above the effects of vocational rehabilitation services required comparison with a third group that had vocational rehabilitation services but did not engage in conditioning. The results of this comparison may be seen in Table I.

Of the clients who received vocational rehabilitation services, 64% were discharged while only 31% of the patients who received vocational rehabilitation services plus work conditioning were discharged. The difference is significant at the .05 level (Fisher's Exact Method). Thirty-three per cent of the vocational rehabilitation services alone patients were employed, while only 9% of the vocational rehabilitation services plus work conditioning patients were employed. The return rate for vocational rehabilitation services alone patients is 14% while the

return rate for vocational rehabilitation services plus work conditioning patients is 19%. In this comparison the first hypothesis is not supported and moreover is significantly different in the opposite direction!

It appears that work conditioning serves as a suppressor variable on rehabilitation effects when administered in conjunction with vocational rehabilitation service including follow-up services. The relationship holds true for both the original and repeat groups. The effect is not clearly seen at the end of six months following work conditioning. But at the end of 18 months for the original group and at the end of 12 months for the repeat group, the difference is clear.

Had we not had the vocational rehabilitation services alone group, we would have concluded that work conditioning in conjunction with vocational rehabilitation services was only marginally successful as a rehabilitation procedure. The success of the vocational rehabilitation services alone group, however, suggests that vocational rehabilitation services and follow-up alone is the more effective treatment and deserves further consideration in planning for client rehabilitation.

The length of time in which clients are given follow-up services seems to have some bearing on the results. The second six-month period of follow up seems to be the critical time when the difference between groups takes place, i.e., more of the clients in the vocationl rehabilitation services alone group are discharged than in the vocational rehabilitation services plus work conditioning group. The regular hospital services group had a 50% return rate in the first year. Other studies have noted a high return rate within a year following discharge. Early return was not common in the present study, except for the regular hospital service group. Seventeen per cent of the clients who went out returned during the first year compared with data described by Fairweather where 75% returned during the first year.

Vocational rehabilitation services including follow up appears to make a decisive difference in whether or not a client goes out of the hospital and remains in the community.

The second hypothesis states that clients who are provided vocational rehabilitation services are more likely to be placed in work situations in the community and can remain longer outside of the hospital than clients in a matched control group.

We have already seen in testing the first hypothesis that clients who are provided vocational rehabilitation services alone exceed both the clients who receive vocational rehabilitation services plus work conditioning and the clients who were in the regular hospital program in number of clients who are employed. Thirty-three per cent of the vocational rehabilitation services alone clients are employed compared to 9% for the vocational rehabilitation services plus work conditioning clients and none for the regular hospital program clients. The difference between vocational rehabilitation services alone clients and regular hospital program clients is significant at the .05 level of significance. The difference between the work conditioning clients and the regular hospital program clients is not significant.

In regard to return rates, the vocational rehabilitation services alone groups' return rate of 14% is significantly different from the rate for the groups that received the regular hospital program, 50%. For clients who received vocational rehabilitation services plus work conditioning, the return rate is 19% and not significantly different from the regular hospital program. We accept the second hypothesis for vocational rehabilitation services alone and not for vocational rehabilitation services plus work conditioning, but note that the trend is in the direction of acceptance for both groups.

The third hypothesis states that there will be a significant increase in the measure of work performance (LWT) for clients in a program of work conditioning and vocational rehabilitation services compared to clients in a program of only vocational rehabilitation services. Tables II and III show the results.

Table II

Original Group

	Work Cond. Grp.	Voc. Serv. Grp.
Before	3.4*	3.4
After	3.3	3.3

Table III

Repeat Group

	Work Cond. Grp.	Voc. Serv. Grp.
Before	7.8	7.8
After	7.0	8.2

*LWT mean scores (method of rating differs in original and repeat groups).

There is no significant difference between groups in measure of work performance. The third hypothesis is not accepted. There is, however, a difference in LWT score between clients who dropped from the project and clients who remain in the project (Drop indicates that the post assessment was not completed so only Before scores are compared).

Table IV

	Drop	Not Dropped	Total
Above Median LWT Score	3 (20%)	22 (73%)	31
Below Median	12 (80%)	8 (27%)	20
Total	15 (100%)	30 (100%)	51*

*The remaining patients were at Median LWT.

Clients who drop from the project, when rated in the initial assessment, appear to have low ratings of work performance. The implication is that clients who do not show high capabilities for work conditioning should not be accepted for this kind of project.

The fourth hypothesis states that there will be a significant increase in the measure of work behavior (LCAVP) for clients in a program of work conditioning and vocational rehabilitation services compared with a matched group of clients who receive only vocational rehabilitation services.

Thirty-three pairs of matched clients were assigned randomly to either the vocational rehabilitation services or the work conditioning groups. During the project, 17 pairs lost either one or both members because of illness or refusal to continue in work conditioning or refusal to participate in the post-assessment. This left 16 pairs of subjects who completed the project.

Using each man as his own control and subtracting his pre-assessment score from his post-assessment score, a gain score is obtained that depicts his improvement or decline during the six months of the work conditioning period.

For overall work behavior (LCAVP Total Score) the following results were obtained:

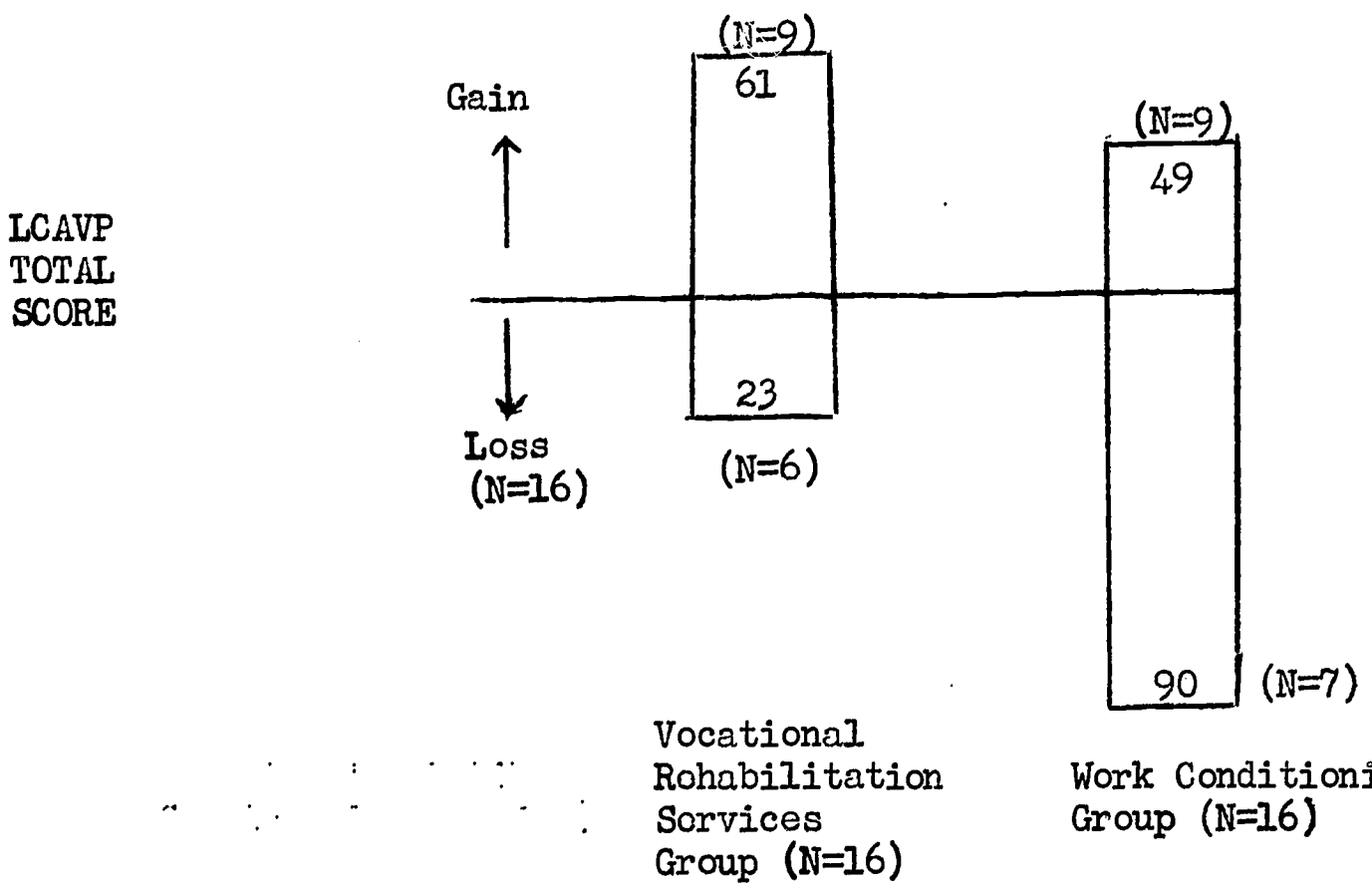
1. In the vocational rehabilitation services group, 9 men gained during the six months, 1 man remained the same, and 6 men scored a decrement in work behavior.
2. In the work conditioning group, 9 men gained during the work conditioning and 7 men received a lower score after work conditioning.

There is little difference between the two groups in directional change.

There is a difference, however, in the amount of change. The total number of points gained for the vocational rehabilitation services group was 61 and for the work conditioning group, 49, not a significant differ-

ence. The total number of points lost for the control group was 23 and for the experimental group, 90, a significant difference. Figure V depicts this difference.

Figure V



Comparing the gain scores for matched pairs, 11 vocational rehabilitation services clients gained more than their matched work conditioning mate. Considering total gain scores, the vocational rehabilitation services clients gained 133 points over their partners while the work conditioning clients gained only 53 points over their partners during the six-month period. This is not a significant difference.

The fourth hypothesis is not supported; in fact, there is evidence that the treatment effects worked in a direction opposite to that predicted by the hypothesis.

Client Differences

There was no difference in the vocational rehabilitation services alone group and the work conditioning group, nor was there any difference in the clients who were discharged and those who were not discharged on

the following variables:

1. Lobotomy - No Lobotomy
2. Age
3. Education
4. I.Q.

There was a difference in diagnosis. Only clients who were diagnosed "paranoid" or "catatonic" were discharged. Clients diagnosed as "hebephrenic," "simple," and "other" were not discharged. The original and replicate groups did not differ statistically on our measures. Therefore, results for both groups are combined into one group.

The Effect of Client Motivation

During the initial selection period each client was asked in an interview whether or not he wished to go out of the hospital. The answers, which were signed by the clients, were divided into three categories: those strongly motivated to go out, those who didn't care but who were not opposed to going out, and those who frankly stated they did not want to leave the hospital. Table VI depicts the patients by three categories of motivation.

The N's differ somewhat from Table I because care home patients are considered as "in" the hospital. In Tables II and III "no answer" clients were not included.

Work conditioning appears to have the effect that clients with high motivation to go out may interpret the project as preventing them from going out immediately. Perhaps the idea of waiting six months before achieving the goal is too long a time to wait. It may be that the low-level jobs in the hospital with institutional-oriented supervisors may not fit with the client's idea of "going out." Certainly, previous work in the hospital has not led to discharge for the chronic client. Whatever the reason, the result is that some clients do drop from the project (25% in both groups of high-motivated clients). An important fact is that

Table VI

Comparison of Clients Who Received Work Conditioning and Vocational Rehabilitation Services and Clients Who Received Vocational Rehabilitation Services Only. Initial Motivation and status in the hospital.

	(EXPERIMENTAL GROUP) Work Conditioning & Vocational Rehabilitation Services — Motivation Level				(CONTROL GROUP) Vocational Rehabilitation Services — Motivation Level			
Status	OUT	?	IN	Total	OUT	?	IN	Total
Drop-out	4(25%)	1(14%)	5(63%)	10	5(25%)	0(0%)	1(17%)	6
Remain	12(75%)	6(86%)	3(37%)	21	15(75%)	5(100%)	5(83%)	25
TOTAL	16(100%)	7(100%)	8(100%)	31	20(100%)	5(100%)	6(100%)	31
DROPPED FROM PROJECT-CLIENTS								
	1/3 Experimental Dropped				1/5 Control Dropped			
Out Hospital	2(50%)	0(0%)	0(0%)	2	2(40%)	0(0%)	0(0%)	2
In Hospital	2(50%)	1(100%)	5(100%)	8	3(60%)	0(0%)	1(10%)	4
Total	4(100%)	1(100%)	5(100%)	10	5(100%)	0(0%)	1(100%)	6
REMAINED IN PROJECT-CLIENTS								
Out Hospital	2(17%)	3(50%)	0(0%)	5	8(53%)	2(40%)	2(40%)	12
In Hospital	10(83%)	3(50%)	3(100%)	16	7(47%)	3(60%)	3(60%)	13
Total	12(100%)	6(100%)	3(100%)	21	15(100%)	5(100%)	5(100%)	25
TOTAL CLIENTS								
Out Hospital	4(25%)	3(43%)	0(0%)	7	10(50%)	2(40%)	2(33%)	14
In Hospital	12(75%)	4(57%)	8(100%)	24	10(100%)	3(60%)	4(67%)	17
Total	16(100%)	7(100%)	8(100%)	31	20(100%)	5(100%)	6(100%)	31

many of the high-motivated patients who drop from the project do go out of the hospital (50% of the work conditioning group and 40% of the vocational rehabilitation services alone group).

The point is emphasized that many clients who want to go out and who may see the project as an interference with their discharge goal, go out anyway.

On the other hand, clients with low motivation to go out or who do not want to leave the hospital environment may interpret work conditioning in a different manner. They perhaps see work conditioning as interfering with their desire to stay in the hospital. The expressed goal of the project is to discharge them and place them on a job. The greater demands of hospital work within the project setting and the efforts of the staff to encourage discharge may make these clients drop from the project because of the possibility that work conditioning will work and they will, in fact, have to leave the protected hospital environment. Clients who drop from the project in both work conditioning and vocational rehabilitation services alone groups, do not go out of the hospital (100% in both groups).

Of the clients who stay in the project, only two (17%) of the high-motivated patients who received work conditioning were discharged, whereas, 53% of the high-motivated vocational rehabilitation services clients were discharged. Moreover, none of the work conditioning clients who did not want to be discharged were discharged, while 33% of the low-motivation vocational rehabilitation services alone group were eventually discharged.

The indifferent or medium-motivation clients serve as an interesting comparison group. Fifty per cent of the medium-motivation clients in the vocational rehabilitation services alone group were eventually discharged.

One explanation is that work conditioning works as a negative reinforcer in both high-motivation and low-motivation groups. The more

clients do not conform, the more they are reinforced. Drop-out statistics support this hypothesis.

Twenty-five per cent of both the work conditioning and vocational rehabilitation services alone groups, high-motivation clients dropped from the project. Sixty-three per cent of the low-motivation work conditioning clients dropped while only 17% of the low-motivation vocational rehabilitation services alone group clients dropped from active participation. Work conditioning appears to have the effect of removing many of the clients from active treatment who are not motivated. Enrollment in the project removes some high-motivated clients in both major groups.

Conclusions

The first hypothesis is not accepted.

1. Clients who are given a program of work conditioning plus vocational rehabilitation services are only slightly more likely to be employed in the community than clients who receive the regular hospital program. Moreover, clients who are given a program of work conditioning plus vocational rehabilitation services are less likely to be employed in the community than clients who are given vocational rehabilitation services alone.
2. The return rate of clients who are given a program of work conditioning plus vocational rehabilitation services is not significantly different from clients who receive the regular hospital program and clients who receive vocational rehabilitation services alone.

The second hypothesis is accepted in part.

1. Clients who are given a program of vocational rehabilitation services alone are more likely to be employed in the community

than clients who receive the regular hospital program. Clients who receive vocational rehabilitation services plus work conditioning do not become employed significantly more than clients in the regular hospital program.

2. Clients who receive vocational rehabilitation services alone have a significantly lower return rate than clients in the regular hospital program.

The third hypothesis is not accepted. There is no significant increase in a measure of work performance for clients in a program of work conditioning plus vocational rehabilitation services compared with a matched group of clients who receive vocational rehabilitation services alone.

The fourth hypothesis is not supported. There is no significant increase in measures of work performance in a group which receives work conditioning plus vocational rehabilitation services compared with a matched group which receives vocational rehabilitation services alone. There is moreover a significant relationship in the opposite direction.

There are no significant differences in the reported relationships in a replicated group compared with the original group.

The only significant difference in background variables is in diagnosis. Clients diagnosed as paranoid and catatonic schizophrenic tend to be discharged while those diagnosed as hebephrenic and simple schizophrenic are not discharged.

Clients with initial assessment measures of work performance that are below the group median tend to drop from active participation in the project significantly more often than clients with measures of work performance above the group median.

There is a relationship between work conditioning and initial motivation. Low-motivated clients are more likely to drop from the project

if work conditioning is included in their program. High-motivated clients who remain in the project are less likely to go out if work conditioning is included in their program.

The difference between the two groups where the work conditioning plus vocational rehabilitation services clients do less well than the clients who have vocational rehabilitation services alone appears to be due less to an increase brought about by vocational rehabilitation services than to a decrement in measures of behavior in clients who receive work conditioning. This decrement takes place in less than half of the group, but is significantly lower than decrement in the vocational rehabilitation services alone group.

CHAPTER VI - IMPLICATIONS

Chapter VI describes in some detail the information we gained in implementing the project goals of establishing vocational assessment procedures at Hawaii State Hospital and undertaking a program of work conditioning designed to increase work potential in chronic schizophrenic men patients. Along with the formal results, the project staff became familiar with many of the informal problems and solutions common to undertaking a demonstration research project in a hospital setting.

A discussion of the informal as well as the formal results should be useful to future investigators undertaking the development of treatment programs for the maintenance of chronic patients in the community through evaluation, training and follow-up services.

Assessment Procedures and Measures

At the time the project was initiated, there were no established procedures to obtain pertinent vocational information about a client except by informal reports by the work supervisor responsible for the client. The project assessment procedures which were structured by defined tasks, provided standard rating instrument, and descriptive rating guide for the raters served to increase the objectivity of an evaluation to a higher degree.

The rating procedure required all clients to be placed on jobs in one of the four rated work areas. This movement of clients from one job to another was met with some reluctance and resistance from clients who preferred to remain on their old jobs or clients who felt threatened by change. Some of the clients, therefore, were rated on familiar, comfortable jobs, while others were rated on new jobs they had to accept. Behavior that was rated may have reflected attitudes toward movement and change rather than toward the job or job situation.

Raters had difficulty in rating vocational personality on job assignments in which the specific factor was only infrequently present, e.g. a client assigned on grounds maintenance and responsible for caring for an area by himself could not be observed on relations to supervisors or co-workers. The obtaining of supplemental information from work supervisors also introduced an additional bias and another variable.

The use of rating scales, selected tasks and jobs in hospital work areas, and closely supervised assignment for work evaluation purposes in itself did not provide sufficient information for effective vocational planning. However, this type of more formally structured, supervised, on-the-job placement for observation and evaluation proved to be far more useful than the purely subjective information available through monthly reports by work supervisors.

This type of assessment also functioned as a screening device by identifying clients with minimum of flexibility and adaptability from other clients who had greater tolerances to assume the role of a worker.

Vocational rehabilitation planning for these clients with chronic psychiatric conditions and who are further crippled in function through deprivations of normal experiences and imposed dependency due to long hospitalization can be done more appropriately with information from an evaluation procedures as described in this project.

The Results of Client Rating and Its Relationship to Work Conditioning.

Of clients who showed a loss in ratings of vocational personality comparing before measures with after measures, the experimental clients had a significantly greater decrement in scores (significant at the .01 level). Of clients who showed a gain in rating score before and after work conditioning, there is no significant difference between experimental and control groups.

The implication of the results of before and after measures appears to be that work conditioning leads to a decrement in behavior for certain clients. For others there is a certain amount of gain, but no more so than the gain for the control group.

Overall group increase in personality scores is much higher for the control than for the experimental group. Clients whose scores dropped significantly lower after work conditioning in the experimental group were those who primarily received a higher initial rating. These clients are seen as having good potential for going out of the hospital and working in the community. However, the drop and the differences are not entirely explained by these seven men. Generally, the experimental clients made less improvement than their matched controls. Five experimentals exceeded the control while eleven (11) controls exceeded the experimentals.

It is possible to hypothesize that a client who has had his hopes raised about going out and who is ready to leave the hospital is frustrated by being retained in the hospital for the treatment of work conditioning. These clients dropped from the project or showed a decrement in their behavior. The less motivated client or those who did not want to leave the hospital received an initial lower rating, but tend to show more improvement from work conditioning.

Use of Hospital Work Areas and Employees for Work Conditioning

The Performance Record Program for work conditioning was not successfully implemented in the project. The original Performance Record proved cumbersome and even difficult for many work supervisors to use. Even after the Performance Record was simplified into a review inventory, work supervisors found the procedure difficult to maintain.

It was difficult for work supervisors as first-line workers to assume the role of supervisory evaluators and be responsible for systematic

observation and objective recorder of client's performance and behavior. Work supervisors were also pressured to maintain a production output which was still considered their primary job function. Furthermore, the Performance Record Program which required supervisors to have review sessions with the client was entirely different from previous ways of working with clients. There was indication of discomfort on the part of the work supervisors in conducting such conferences.

Almost all of the hospital work areas as they now exist do not provide clients (especially those with prominent symptoms) with opportunity for progressive involvement on the job to gain competence as an "employee." Clients are most often assigned to tasks on a job that are usually segmental and highly specialized, e.g., assigned to the kitchen dishwashing section, an individual may be a "dish stacker." He may rotate to "pot washer" but often remains on one specialized task and has little responsibility for other aspects of being a dishwasher. Also, hospital job placements offer very little in terms of job rewards. The "gratuity" provided by the hospital for workers amounts to about $7 per month and did not appear to serve as a compelling work incentive factor. Much of the response to involvement in work seems to be a response of conformity to expectation of staff rather than upon satisfaction derived from working.

Only a few work supervisors were willing to commit themselves to the project type of rehabilitation effort, and to be involved in working more intensively with the clients. Attempts to cultivate involvement were unsuccessful.

Hospital work areas can provide good opportunity for on-the-job work experience. However, the placement experience needs to be supervised and guided toward progressive training goals in order to serve as a means of preparing the client for normal employment. A specialist in vocational

rehabilitation needs to be involved in this process.

Hospital work supervisors can serve as supervisors of rehabilitation as well as production, but need to have this role recognized administratively as part of expected job duties in order to be effective. The work supervisors need also to have an understanding of mental illness in order to be effective in the work training process of those with chronic psychopathology. Also, recognition by the top administrators on the importance of work and assignment of personnel for rehabilitation programs is needed if the hospital work areas are to be used effectively.

Client Who Leaves the Hospital

The typical client who left the hospital was 41 years old, had been in the hospital for 14 years, and had an I.Q. of 79.

Almost all clients had some handicapping condition that appeared as a residual of their long "institutionalization. Some of the more prominent and common characteristics of this group was their lack of ability to make appropriate independent decisions, poor use of judgment and initiative, physical slowness, and inability to express thoughts freely and clearly. They were generally asocial.

Aftercare services required greater support for this group of clients. There were 14 who were referred to workshop programs but 5 who had to be dropped or who quit because of inability to adjust and cope with the demands of the programs, e.g., two men became progressively agitated and ultimately this resulted in overt symptoms that interfered with work function and created management difficulties in the family. Two men reacted by refusing to continue in the training programs.

The failure in adjustment suggests to some extent the lack of appropriate preparation of the client before discharge. There appears to be a need for clients to be exposed to more normal living experiences that

include more independence, realistic work expectation and demands, and necessary social relationships. The poorly prepared client who begins to fall apart is difficult to sustain because intensive psychiatric treatment cannot be provided by the Mental Health clinics and the vocational rehabilitation and workshop staff cannot deal adequately with the problems of the acutely ill patient.

The hospital's rehabilitation effort needs to include a more comprehensive training program including activities outside of work to prepare these clients for successful community placement.

The Problems of the Client Who Returns to the Community

The problems faced by clients as they adjusted from institutionalized living to self-directed living usually fall into two major categories:

1. Socialization Problems: These ranged from the simple to complex daily living activities, e.g., how to use the public transportation media, how to use the community recreational and leisure-time programs, how to contact and use the community resources for welfare and other indigent funds, how to dress properly, use of table manners, and general lack of social graces, how to use the banking facilities, cashing of checks, money management, and also how to plan and maintain a proper balanced diet.
2. Supportive Care Activities: Some clients discontinued medication upon discharge from the hospital because they thought they were "cured;" other clients were placed on new medication and dosages without a properly established chemotherapy regime which resulted in unexpected behavior. Lack of experience in making decisions for themselves was a new and frightening process, and sometimes procedures and conditions for discharge were unrealistic because the hospital required that they report back for interviews, which

necessitated asking to be excused from work and added expenses for transportation when they could not afford either. Families of the client very often were not prepared for establishing new relationships, thus the lack of understanding and indifference to the client's needs increased follow-up services and contact. Increased frequency of client contacts is needed just prior to discharge and then carried on for nine months to help the chronic client make the transition from the institution to community living.

Why the Increased Rehabilitation in the "Vocational Rehabilitation Services Alone Group

The vocational rehabilitation services group showed remarkable rehabilitation results. What accounted for the difference? While neither the original or repeat vocational rehabilitation services group was greater than chance difference from experimental, combined, the two vocational rehabilitation services groups reached the .05 level of significance of difference (Fisher's Exact Method) compared with the work conditioning group.

Both the experimental and control (work conditioning and vocational rehabilitation services) groups exceeded the second control group (regular hospital program). They had in common the procedures involved in assessment before and after as well as both having vocational guidance and follow-up services.

The work conditioning group had the additional stress of the experimental conditions. More was required of them and they were continually under the stress of observation.

The larger amount of attrition in the work conditioning group may have been an additional factor. Because the higher rated clients tended to drop out of the project, those that were left may not have had as much potential for return to the community.

The lack of pressure on the vocational rehabilitation services group does not seem to have been a factor because the same condition was true in the regular hospital program group. The attention of the vocational rehabilitation counselor stands out as the major factor in accounting for the difference. Vocational rehabilitation services and follow-up services appear to benefit all groups where they were utilized. The difference came about in part, through a decrement in some of the behavior of patients in the work conditioning group.

Social approval of staff is a reinforcer. The more approval, the more work tolerance. Comfort or lack of tension creating situations is also a negative reinforcer. In other words, to leave the situation where work must be tolerated is in itself reinforcing. If social approval is forthcoming and there is no requirement of work tolerance, there is a stronger reinforcement in terms of going out. For clients in the work conditioning groups, in order to go out they had to change jobs in the hospital and engage in improvement of productivity as well as participate in evaluation (being observed and judged). In the vocational rehabilitation services alone group, the client received social approval and follow-up help without participation in improvement or productivity.

For those clients with a positive value of going out, those who can go out with less cost in terms of stress and change will receive more positive reinforcement. The seemingly paradoxical situation that the clients who received the most help (work conditioning plus vocational rehabilitation and follow up) did as poorly as those with no program can be explained in theoretical terms. It "costs" more to engage in work conditioning. By refusing work conditioning, you receive less approval from staff but you gain in reinforcement by escaping the work conditioning stress. Those that remain in work conditioning do not receive greater approval and moreover

are subjected to continuing tension and perhaps a feeling of relative deprivation when they compare themselves with clients in the no work conditioning control groups.

Differences Between the Original and the Replicate Groups

We had the advantage in this project for the opportunity to try to replicate our results. In general, they were replicated but the differences in the repeat group were not to the degree of the original group. Why did this difference come about?

The original vocational rehabilitation services group did not have the weekly evening sessions whereas the counterpart group in the replicate study did. The project team felt that since both groups were going to have members placed in the community, that both groups should have the same orientation to the outside community. It is unclear that this change made any difference. The two major groups in the repeat study did show less of a difference than the groups in the original group.

The repeat groups had a smaller pool of patients from which to select clients. The hospital population was dropping and approximately 100 patients had already been approached for the original study. In addition, the requirements were raised slightly for patients in the repeat study. The increased requirements did not result in any increase in outside placement or in ratings of behavior. There were many more incidents of resistance in the repeat group.

The project staff did not set as rigid requirements for work conditioning in the repeat group as they didin the original. Clients did not have to move from their accustomed jobs unless they so desired, and they were observed and rated on their regular job rather than on a standard job that was different from the accustomed job. Nevertheless, clients dropped from the project and the vocational rehabilitation services group exceeded the work conditioning group in number of placements in the community.

Follow-up study of the repeat group lasted only 12 months whereas the first group was followed for 18 months.

Influence of the Project Upon Other Programs and Agencies

The project was instrumental in creating some direct changes within the hospital. It helped to create a climate of cooperation for placement of clients in existing community resources, and was helpful in serving as a catalyst in the community to bring professionals in the Divison of Mental Health and the Division of Vocational Rehabilitation together for several conferences creating a readiness to take advantage of Federal legislation providing funds for programs geared to handle special problems posed by the mentally ill adult.

The Hawaii State Hospital developed new procedures for its industrial therapy program and was able to justify an additional position of Work Activity Specialist as a direct result of the project. Previously, patients in the hospital were assigned to the hospital work areas upon the demands of the hospital work loads. Sometimes patients were assigned based upon therapeutic goals as developed by the treatment staff of the wards. But many times patients were assigned to earn spending money and to help keep active patients away from the wards. The new procedures provide for two categories: work as milieu therapy, and vocational rehabilitation to assess client for work tolerance evaluation, vocational exploration, and training and adjustment (See Appendix iv for sample form).

The Hospital Improvement Program approved for three years since December 1, 1965, included a major phase of work training based upon the experience of the VRA Project. The efforts of the project staff is reflected in the introduction and objectives of the Hospital Improvement Program (HIP). "...The Project is designed to rehabilitate a selected group of dependent institutionalized patients who are not actively

disorganized. As differentiated from the chronically psychotic patients or organically ill and elderly patients, this group of long-term patients, who generally avoid interaction with the staff, rarely creates management problems on the ward. As a result, the care provided is custodial and they remain in the Hospital. The continuous accumulation of these patients in the hospital delimits the development of the Hospital into an intensive treatment center and, hence, the HIP* Project was designed to provide intensive rehabilitation services through work training as well as socialization to achieve maximum restoration of these patients for return to the community.

Objectives: 1. To return the dependent chronic patients into the community;

2. To reduce the custodial atmosphere of the hospital;

3. To provide a training program for the extension of rehabilitation efforts in the Hospital Units..."*

Influence of the Project

At the time that the VRA Project started at the Hawaii State Hospital there were three rehabilitation workshops providing services to the handicapped in the community.

These centers were not being utilized extensively for the rehabilitation of psychiatric clients by the Hawaii State Hospital, nor by many of the agencies that worked with psychiatric clients.

In 1963 both Goodwill Industries and Salvation Army Men's Social Service Center had clients with psychiatric problems or disorders, but they were not identified in their census by this particular handicap. At Lanakila Crafts 13% of the clients were identified as persons who had a psychiatric handicap.

*Hospital Improvement Project, MHO 2076-02, HSH 6-1-65

Table VII

Number of Referrals and Use of DVR Services by Hawaii State Hospital

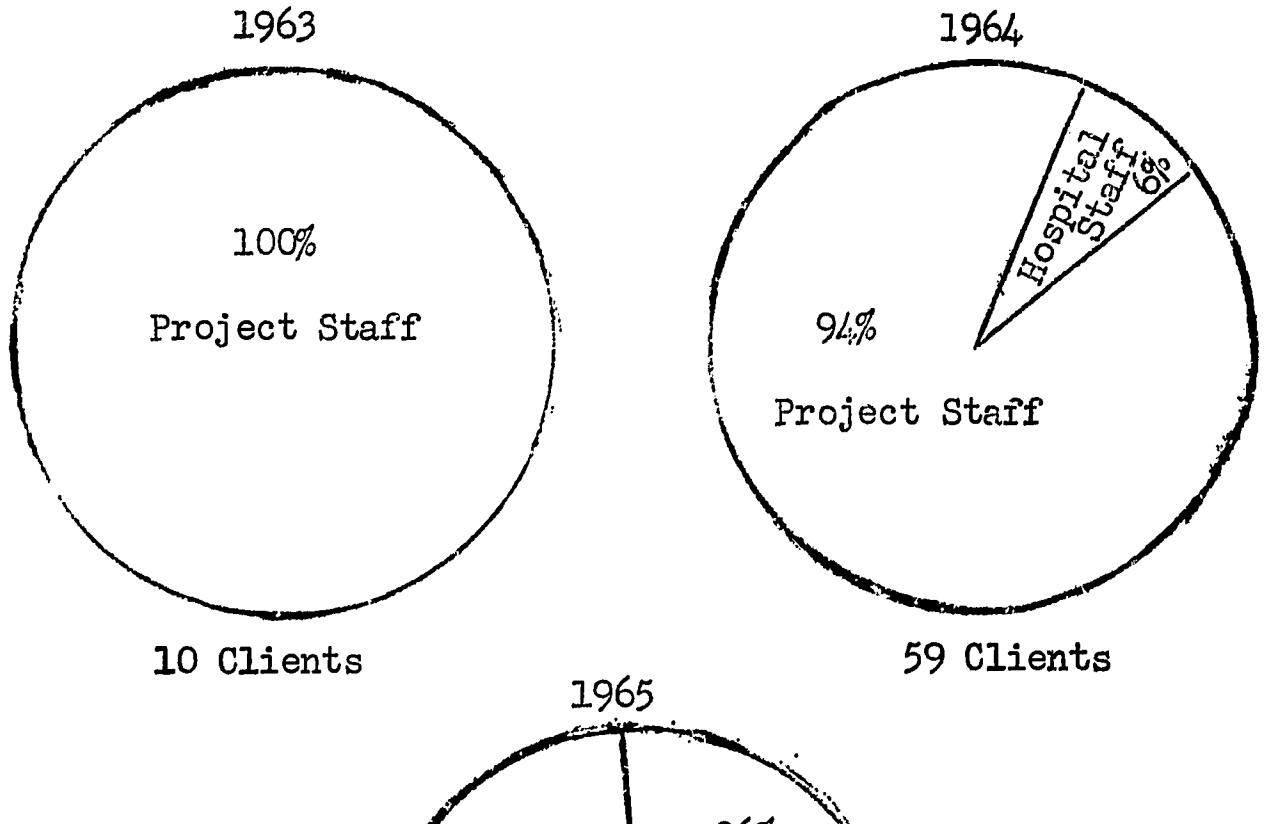


Table VII provides a graphic picture of how the Project expanded and used the State Division of Vocational Rehabilitation Services during the period 1962-1965.

The availability of a VRA Counselor on the Hospital Grounds and ease of obtaining the necessary forms has helped to generate more referrals and follow-up by VRA through the Project Liaison relationship to the State Office.

Total of 10 Clients used DVR Services in 1963.
Total of 59 Clients of which 56 were made by project staff, 3 were made by hospital staff in 1964. In 1965 out of a total of 53 Clients, 39 referrals were made by the Project Staff and 14 referrals were made by the Hospital Staff. It was five times the number in previous years.

It is interesting to note the increase use of Division of Vocational Rehabilitation Services by the Hospital Social Work Staff during the years 1964 and 1965.

It was in 1964 that the VRA Project staff began working more closely with the administrators of both Goodwill and Salvation Army and began referral of clients from the Hawaii State Hospital.

In 1966 the number of clients in the workshops with a psychiatric condition as the major handicapping condition totaled 91 or 22.3% of the workshop population. At Goodwill Industries an estimated 17% are psychiatric referrals and at Salvation Army there are 41 such referrals out of the 307 total caseload for the year.

The American Occupational Therapy Association (AOTA) in 1964 called upon its membership to submit papers on research and study projects for consideration as part of its annual conference program. The project team sumbitted a paper entitled, "The Remotivation of Chronic Schizophrenic Men Patients," a research-demonstration project in rehabilitation. The paper was accepted for presentation as part of the AOTA Conference program held in Denver, Colorado, in November of 1964. Project Coordinator, David Murata, represented the project in the presentation.

The Hawaii State Hospital staff of the Vocational Rehabilitation Project worked in cooperation with the Social Service Center of the Honolulu Salvation Army Program to develop a new rehabilitation program. The VRA project served as a pilot project for the Service Center and a new rehabilitation program was developed for the Center entitled:

"Planning and Initial Implementing Project for Facility and Program Expansion, The Salvation Army Men's Social Service Center, Honolulu, Hawaii."

General Aim: To provide initial implementing staff and equipment for a phased expansion plan that is to provide more comprehensive rehabilitation and vocational services to men with disabilities primarily in the social and psychological areas.

Traditional services included socially handicapped parolees, alcoholics and probation cases.

The new expansion of services for clients will include:

Partially restored psychiatric and clinic cases; mentally retarded whose potential for employment may be enhanced by vocational training; restorable physically disabled with treatable social and vocational handicaps whose potential would be enhanced in the Center program.

CHAPTER VII - SUMMARY

One major difficulty for men patients on "continuous treatment wards" of a state hospital is that they have either lost or have never acquired the ability to tolerate a work situation outside of the hospital. Another difficulty is the lack of information available to employer on prior work history of patient they consider hiring. Also, the authors suspect that the high rate of readmissions to the hospital can be attributed to the difficulty of patients independently facing the dual condition of adjustment to community living and earning a wage.

To meet the problems, a VRA demonstration project was approved to develop within the hospital a program to evaluate work functioning and to develop worker competence while not subject to the pressures of a competitive job situation in the community.

The project was designed to meet three goals:

a. To establish within Hawaii State Hospital vocational assessment procedures;

b. To provide a program of work conditioning designed to increase work potential in patients identified as chronic schizophrenics;

c. To provide adequate aftercare service and follow up, including job placement, training, and assistance in making community adjustment.

The emphasis of the project was to provide a systematic work conditioning procedure in recognition of the needs of the long-hospitalized mental clients which was related to the program of the Vocational Adjustment Center in Chicago. This program defined those aspects of gainful employment which involved a "process of adjustment," and centered its efforts around the individual and his aibility to relate his own feelings, attitudes, and aspirations to his co-workers and supervisor. The findings of the vocational adjustment center study in a sheltered work-

shop setting were adapted for use with chronic schizophrenic clients in a hospital setting at Hawaii State Hospital. A significant difference of the Hawaii State Hospital project was in the adaptation and use of existing hospital work settings as well as the orientation and training of work supervisors to provide work conditioning.

The major hypothesis to be tested was that clients who were given a program of work conditioning and vocational rehabilitation services were more likely to be placed in work situations in the community and more likely to remain longer outside of the hospital when compared to two matched control groups, one which received vocational rehabilitation services alone and the other only the regular hospital program. In addition, information was gathered on clients to facilitate their job placement.

To provide a baseline on which to compare clients, each client was put through an initial period of assessment. The subjects were matched client to client on the basis of age, intelligence, length of hospitalization, and level of work tolerance scores (where available). Following the matching, clients were assigned at random to either the work conditioning, vocational services alone group. (The regular hospital program group was assigned by matching clients in the other two groups.)

Each client in the work conditioning and vocational rehabilitation groups was assessed on two general measures. The first was Level of Work Tolerance (LWT). Jobs in the hospital had been categorized empirically into four levels of difficulty. Each client was evaluated as to the level at which he could work best by giving him an opportunity to perform on selected jobs in four work areas. Clients were rated in terms of learning, retention, quality, and quantity of work. The average rating on the job assignments attempted was considered to be the LWT score.

The second measure was Level of Congruence to an Adequate Vocational Personality (LCAVP). To determine his LCAVP, each client was rated by at least two raters who had no previous contact with the client. Each client was rated in the following areas: reaction to supervision, relations with co-workers, work satisfaction, work pressures, and use of abilities. The client's average rating in each of the five rating areas by the two or more raters was taken as his score.

Following the Vocational Personality rating, raters met as a group and placed each of the clients in one of the following eight categories:

1. Ready for placement on a regular, full-time job in the community.
2. Ready for placement on a regular, part-time job in the community.
3. Ready for on-the-job training.
4. Ready for vocational training.
5. Ready for placement in a sheltered workshop.
6. Ready for sheltered workshop training.
7. Continue in hospital work activity program.
8. Not ready for placement.

The purpose of placement prediction was to aid in planning vocational placement.

The work conditioning group was given a six-month period of work conditioning on selected jobs in the four work areas, while the vocational rehabilitation services alone group was continued on regular pre-assessment work assignments. At the end of the six-month period, both groups were given a second assessment period. The LWT and LCAVP were determined, after which all raters met and predictions for placement were made again. Scores were compared to determine if there was any differential gain by either group.

The clients were placed in appropriate settings in the community according to the team's prediction. All clients in the work conditioning and vocational services alone groups were provided with the services of the project vocational counselor in addition to the usual after-care services. Nine months following post-assessment, clients were reviewed to determine the number of experimentals and controls working outside of the hospital. Community agencies did not know the group assignment of clients, but the information obtained on the post-assessmnt was shared with community agencies.

Work conditioning for this project was centered around five areas of work behavior: reaction to supervision, relations with co-workers, work satisfaction, work pressures, and the use of abilities. The conditioning was provided through work supervisors (regular hospital employees) using a performance record.

There were two main aspects to the work conditioning. The first was supportive and gave the client credit for any steps he made towards adequate functioning. At the lower levels of work tolerance, the work supervisor noted client's improved performance and immediately gave the client credit. As the client progressed through the work tolerance levels, the conditioning became more realistic. The other had to do with negative pressures and anxieties of work, as well as evaluations of performance, which were brought to the client's attention and he was shown how such evaluation was necessary and temporary. He was helped to react in an appropriate manner.

The typical client who left the hospital was 41 years old, had been in the hospital fourteen years and had an I.Q. of 79. He also had the following general characteristics: lack of ability to make an appropriate independent decision, poor use of judgment and initiative, physical slow-

ness, inability to express thoughts freely and clearly, and was generally asocial.

First Hypothesis:

Clients who are given a program of work conditioning are more likely to be placed in community jobs and stay longer in the community than members of the matched control group, who do not engage in work conditioning.

Statistical data indicated that an equal number of clients from both the work conditioning and regular hospital program groups were discharged from the hospital, however, only clients of the work conditioning group found employment in the community. (Chapter V gives a detailed breakdown on the statistics.) These findings supported the first hypothesis, but the difference was not significant.

The return rate for the regular hospital program group was 50% and only 19% for the work conditioning clients. Also at the end of the follow-up period only 16% of the regular hospital program clients remained out of the hospital, but 24% of the work conditioning clients remained out of the hospital.

An important finding of the project was the return rate for the vocational rehabilitation services group which was 14%, the lowest. For the group of clients that received both work conditioning and vocational rehabilitation services, the return rate went up to 19%. This finding did not support the first hypothesis, but was in the opposite direction. Work conditioning does not appear to increase potential for discharge of the chronic schizophrenic patients, nor does it help prolong the client's stay in the community.

Second Hypothesis:

Clients who are provided vocational rehabilitation services including follow-up services are more likely to be placed in work situations in the

community and can remain longer outside of the hospital than clients in a matched control group.

Results indicate only partial acceptance, since clients who are given a program of vocational rehabilitation services alone are more likely to be employed in the community than clients who receive the regular hospital Industrial Therapy program. However, clients who receive vocational rehabilitation services alone have a significantly lower return rate than clients in the regular hospital program.

Third Hypothesis:

There will be a significant increase in the measure of work performance (LWT) for clients in a program of work conditioning and vocational rehabilitation services including follow up compared to clients in a program of only vocational rehabilitation services including follow up.

Results from the study do not support this hypothesis.

Fourth Hypothesis:

There will be a significant increase in the measure of work behavior (LCAVP) for clients in a program of work conditioning and vocational rehabilitation services including follow up compared with a matched group of clients who receive only vocational rehabilitation services including follow up.

Results of the study do not support the hypothesis. There was a significant increase in measures of work behavior, but the increase was in the direction of increased measures of work behavior for the vocational services alone group.

Recommendations:

This study points out that the traditional use of regular hospital work areas is not as useful in preparing the chronic patient for community living, unless there are established progressive training work areas geared

to the needs of each individual patient. To increase the effectiveness of hospital work areas, an adequate in-service training for the institutional work supervisor must be developed around the concept of a realistic production, job orientation of performance of patients to a community model and reduction in the custodial attitude of hospital personnel which focuses on keeping patients busy in segmental tasks.

This study also developed several techniques for involvement of the Vocational Rehabilitation Counselor and his agency, the Division of Vocational Rehabilitation, with the hospital staff and organization. The dual supervision of the position by two different agencies is against sound personnel practice, but for the project dual supervision was most successful, and administrators are encouraged to develop this approach in providing greater resources and manpower as an answer to the shortages of personnel in the state hospitals. The demonstration of the counselor's expert knowledge in vocational rehabilitation by developing assessment procedures and job analysis for work areas helped to create his team role in the hospital.

Follow-up service, such as daily and weekly visitation of clients on the job, in the home, or sheltered workshop; 24-hour consultation available for clients, families, employers, landlords; and workshop staff will improve the chances for maintaining the chronic patient in the community. These traditional functions of after-care service may be assigned to other staff members under the supervision of the hospital social worker for effective treatment to a greater number of patients.

Appendix I

VOCATIONAL REHABILITATION PROJECT 891
Hawaii State Hospital

PROJECT TIME PHASE OUTLINE

PREPARATION

1. Select job assignments.
2. Rank and Level Jobs.
3. Solicit referrals.
4. Develop assessment measures and procedures.
5. Interview and select patients.
6. Compile patient information.

INITIAL ASSESSMENT (before) (all clients)

1. Assessment
   a. Level of Work Tolerance.
   b. Vocational Personality.
   c. Placement Prediction.
2. Matching and division into experimental and control group.

WORK CONDITIONING (Experimental Grp. Only)

1. Performance Record:
   Systematic Recording.
   Discussion with patient.
2. Provide employment information.
3. Stimulate and maintain interest in Project goals.

ALL CLIENTS

1. Pre-vocational counseling, testing.
2. Exploration of community rehabilitation services, housing, employment resources.
3. Compile further patient information: Ward Evaluation, interviews, etc.

3 MONTHS

POST-ASSESSMENT (after) (all clients)

Repeat procedure a, b, d, for all clients remaining in hospital.

6 WKS

POST HOSPITAL SERVICES (All Clients)

1. Living arrangements.
2. Job and/or adjustment training.
3. Job placement.
4. Supportive counseling.

3 MONTHS

1. Solicit referrals for replicate study.
2. Plan modification of methodology.
3. Select pts for replicate study.

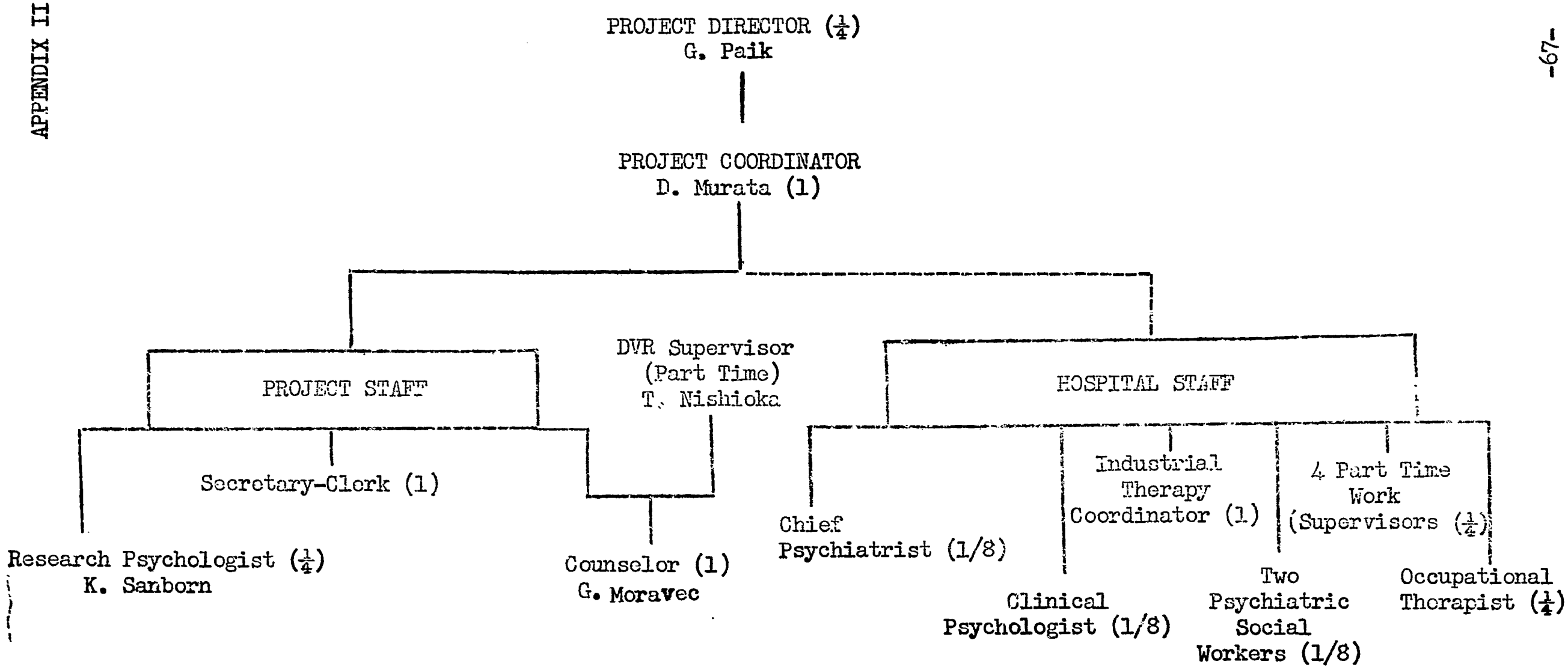
FOLLOW-UP

Follow-up:
Employment status of initial study clients. (9 months after post-assessment).

Replicate study begins.

V R A P R O J E C T 8 9 1
HAWAII STATE HOSPITAL

TABLE OF ORGANIZATION



VRA PROJECT 891
HAWAII STATE HOSPITAL

Bulletin No. 11 November 30, 1964

154 YEARS HOSPITALIZATION INTERRUPTED!

Discharged	10	Discharge pending	4
Leave	1	In hospital *	25
Night Hospital	2	Readmitted	1
		Total	42

The in-hospital program with the first group of 42 patients was completed in July. Since then, the Project team has devoted attention to providing extensive follow-up services to those clients who did receive discharges. To date (11-27-64) ten clients with a total of 154 years of hospitalization have been discharged. One client has been readmitted. Another six clients are in various stages of discharge planning and may soon join those already living in the community.

Twenty-one patients, similar to the Project population but not receiving Project services, have been followed to determine if there would be differences between those receiving special services and those without such service. Two patients from this group have been discharged, but both were readmitted after remaining out less than two months.

Appendix III

* * * PROJECT PAPER READ AT DENVER * * *

A paper on the Hawaii State Hospital VRA Project was submitted for presentation at the American O.T. Association's conference and was selected as one of the three papers to be read to the conference assembly. David Murata represented the Project in attending the conference held in Denver, Nov. 26 - 30. The A.O.T.A. highlighted "research" at this year's conference and the HSH Project represented a formal research study.

David met with the staff of several other VRA sponsored Projects and related rehabilitation programs in the California area including: Camarillo State Hospital; the "Quarters" and Agnews State Hospital in San Jose; Conard House and Letterman General Hospital in San Francisco.

* * * SALVATION ARMY TO PROVIDE VR SERVICES * * *

The Salvation Army Men's Center located at Liliha* is presently in the process of adding special work adjustment training and evaluation services to their rehabilitation program. This will make available another needed program and facility in Honolulu to assist persons who are in need of help to prepare for employment. The Center provides resident quarters at the Liliha* location and work experience at the King Street shop for about 45 persons with varying handicaps.

*Vineyard

* * * 2ND GROUP TO START * * *

The Hospital Units are currently being asked to refer a new group of patients for the Project. A maximum of 42 persons will be accepted. The experience with the first group has provided helpful information in identifying needs in two areas, (1) special problems of the long-hospitalized person, (2) available community facilities and rehabilitation programs. It is hoped that we can improve our efforts with the new group with the added experience.

Appendix IV
VRA PROJECT 891

PATIENT REFERRAL FORM

The purpose of this referral form is to identify chronic schizophrenic male patients who have some motivation to work, but are in need of vocational rehabilitation services to more adequately prepare them for gainful employment in the community. Patients who in your opinion have the potential for eventual employment can be brought to the attention of the VRA Project Team by the completion and submission of this form. The project will involve the patient for a period of about eight months of work evaluation and work conditioning.

The patients should meet the following criteria:

a. Schizophrenia diagnosis.
b. Five years or more total hospitalization.
c. Capable of going to and from work independently.
d. Capable of independent self-care (dressing, grooming, personal hygiene).

PATIENT'S NAME_____ WARD_____ CASE NO._____

REASONS FOR REFERRAL (Please support your response with detailed opinions or facts where ever possible.)

1. a. Has patient recently indicated some interest in work or wanting to work? If "Yes", what type of work? In hospital or outside?

YES_____

_____

NO_____

b. Do you think he would be hired for the above indicated job on the outside? Why?

YES_____

NO_____

_____

Do you think this patient can work on the outside? If "Yes", what kind of work? If "No", why not?

NO_____

YES_____

_____

3. Do you think the patient can work with (relate to) other people on a job i.e. employer, supervisor, co-workers?

YES_____

NO_____

4. Is the patient on I.T. assignment at this time? If "Yes", what assignment, and what is his attitude toward the job? If "No", why isn't he working?

YES_____

NO_____

_____

5. Does the patient have the potential to work at a hospital job 5 days a week, 6 hours a day?

YES_____

NO_____

6. What do you consider to be his major assets as a worker?

_____

_____

7. What limitations might he have as a worker?

_____

_____

Date:_____ Signed:_____

Position:_____

VRA Form 15
19 Sep 63

Appendix V Ranking & Levelling of Jobs

Hospital Work Areas Graded to Levels of Difficulty

* Least Difficult ** Most Difficult VRA Project 891 July, 1963	* JANITORIAL	GROUNDS MAINTENANCE	LAUNDRY	** KITCHEN
* LEVEL 1	Empty waste receptacles ——— Sweep and dust; Clean basin and toilet	Rake and Sweep ——— Weed		
LEVEL 2	Mop Floors ——— Clean windows and screens	Cut Grass	Classifier ——— Washing-machine Loader	
LEVEL 3	Dust desks and library book shelves; check toilet paper and hand towels	Landscape		Pot Washer
** LEVEL 4			Extractor Loader	Truck Driver Helper ——— Dishwasher, Machine ——— Patients Dining Hall Attendant

APPENDIX VI

WORK PERFORMANCE AND VOCATIONAL PERSONALITY RATING

Client_____ Date_____

Rater_____ Work Area & Assignment_____

Position_____ Work Supervisor_____

Overall Rating of Client as a Worker:

Unacceptable				Questionable				Acceptable			
1	2	3	4	5	6	7	8	9	10	11	12

I ☐

Please give reasons and cite specific incidents you observed which contributed to arriving at the indicated rating: II ☐

_____ III ☐

_____ IV ☐

_____ V ☐

_____ VI ☐

_____

_____ TOTAL ☐

VRA Form #25

Jan. 12, 1965

I. WORK PERFORMANCE

UNACCEPTABLE

1. Requires constant supervision.
2. Needs repeated instructions.
3. Extremely slow, poor output (productivity).
4. Consistently poor work, unsuitable results.
5. Tolerates some physical demands, but not enough to complete task.
6. Takes excessive breaks.

QUESTIONABLE

1. Needs reminding, periodic supervision.
2. Slow to learn, needs to be told what to do.
3. Below average output (productivity).
4. Makes some errors, needs occasional correction.
5. Takes more breaks than necessary.
6. Partial physical tolerance of work requirement.

ACCEPTABLE

1. Independent, minimal supervision.
2. Remembers instructions.
3. Able to produce average output or better.
4. Good work, acceptable quality.
5. Sustains effort.
6. Full physical tolerance.

RATING

Unacceptable	Questionable	Acceptable
1 2 3 4	5 6 7 8	9 10 11 12

Please give reasons and cite specific incidents you observed which contributed to arriving at the indicated rating.

VOCATIONAL PERSONALITY

II. RELATIONS WITH CO-WORKERS

UNACCEPTABLE
1. Uncommunicative, detached.
2. Becomes disagreeable working with others.
3. Hostile, selfish.
4. Avoids others, withdrawn.

QUESTIONABLE
1. Passive - speaks only when spoken to.
2. Reluctant to help others.
3. Tactless, irritates others by manner or behavior.
4. Tends to keep to himself, indifferent.

ACCEPTABLE
1. Initiates conversation with others.
2. Freely helps others with work.
3. Uses tact and good sense with others.
4. Outwardly friendly.

RATING

Unacceptable				Questionable				Acceptable			
1	2	3	4	5	6	7	8	9	10	11	12

Please give reasons and cite specific incidents you observed which contributed to arriving at the indicated rating.

_____

_____

_____

_____

_____

_____

VOCATIONAL PERSONALITY

III. RESPONSE TO WORK PRESSURE

UNACCEPTABLE
1. Refuses responsibilities.
2. Won't try all tasks.
3. Complains, becomes angry, or tense when production demands are increased.
4. Does only what he wants to.

QUESTIONABLE
1. Reluctant to take responsibility.
2. Reluctant to change.
3. No change in productivity when production demands increase.
4. Upset by failure or difficulty of performing task.

ACCEPTABLE
1. Willing to assume responsibilities.
2. Accepts change in assignments.
3. Responds positively to increased production demands.
4. Tries even though the task may be difficult for him.

RATING

Unacceptable				Questionable				Acceptable			
1	2	3	4	5	6	7	8	9	10	11	12

Please give reasons and cite specific incidents you observed which contributed to arriving at the indicated rating.

_____

_____

_____

_____

_____

_____

_____

IV. RESPONSE TO SUPERVISION

UNACCEPTABLE
1. Resists supervisor. 2. Resents being told what to do. 3. Becomes angry or tense when told what to do or corrected. 4. No reaction to praise or encouragement.
QUESTIONABLE
1. Tolerates supervisor. 2. Passively accepts orders. 3. Becomes defensive when criticized or corrected or does not seem to like to be told what to do. 4. Accepts praise or encouragement, but without effect on work effort.
ACCEPTABLE
1. Accepts supervisor as the "boss". 2. Follows orders willingly. 3. Reacts positively to criticism - takes correction well. 4. Responds to praise and/or encouragement.

RATING

Unacceptable				Questionable				Acceptable			
1	2	3	4	5	6	7	8	9	10	11	12

Please give reasons and cite specific incidents you observed which contributed to arriving at the indicated rating.

VOCATIONAL PERSONALITY

V RELATIONS WITH SUPERVISOR

UNACCEPTABLE 1. Antagonistic or negative toward supervisor. 2. Does not talk to supervisor even when approached. 3. Uncomfortable, tense.
QUESTIONABLE 1. Passively accepts supervisor. 2. Speaks to supervisor only when spoken to. 3. Tolerant of supervisor.
ACCEPTABLE 1. Works well with supervisor(s). 2. Talks freely with supervisor (initiates conversation, spontaneous, etc. 3. Friendly and comfortable with supervisor.

RATING

Unacceptable				Questionable				Acceptable			
1	2	3	4	5	6	7	8	9	10	11	12

Please give reasons and cite specific incidents you observed which contributed to arriving at the indicated rating.

VOCATIONAL PERSONALITY

VI WORK SATISFACTION

UNACCEPTABLE
1. Regularly late to work or return from breaks.
2. No interest in improving or doing better job.
3. Tries to avoid work.
4. Lazy.
5. Expresses dislike for work, does not care how job is done.

QUESTIONABLE
1. Often late to work and reporting back from breaks.
2. Does what he is told and not any more.
3. Stands idly at every opportunity.
4. Needs prodding to do work.
5. Tolerates and/or passively accepts work.

ACCEPTABLE
1. Prompt to report to work and return from breaks.
2. Tries to improve and do a better job.
3. Finds things to do without being told.
4. Perseveres on job.
5. Works hard, takes pride in working

RATING

Unacceptable				Questionable				Acceptable			
1	2	3	4	5	6	7	8	9	10	11	12

Please give reasons and cite specific incidents you observed which contributed to arriving at the indicated rating.

Appendix VII

VRA PROJECT

WARD EVALUATION

Name_____ Date_____

Ward _____ Rater_____

A. INTERPERSONAL RELATIONSHIP - INTEREST

Relationship to Staff:	Always	Almost Always	Almost Never	Never
1. Cooperates with staff.				
2. Accepts authority good naturedly.				
3. Demanding and source of annoyance.				
4. Negative and hostile.				
5. Passive.				
6.				

Relationship to Other Patients:				
1. Indifferent to others.				
2. Avoids others.				
3. Seeks out certain people for friends.				
4. Is friendly with almost all patients.				
5. Passive.				
6. Dominant and aggressive.				
7.				

B. PSYCHIATRIC CONDITION.

1. Appropriate conversation.				
2. Mood swing.				
3. Preoccupation.				
4. Delusional.				
5. Anxious or tense.				
6. Stuporous.				
7. Quick temper.				
8. Other (Specify)				
9.				

C. INDEPENDENCE.

Doing Things for Oneself:				
1. Asks for help when needed				
2. Makes decisions and plans on his own.				
3. Budgets and spends money appropriately.				
4.				

Attention to Personal Care:	Exceptional	Good	Fair	Poor
1. Dress and grooming.				
2. Personal hygiene (bathing, care of teeth, etc)				
3. Care of personal effects (bed or room, clothing, etc.)				

D. SOCIAL INTERESTS

Attends Hospital Functions:	Often	Occasionally	Rarely	Never
1. Movies.	____	____	____	____
2. Special programs.	____	____	____	____
3. Dances.	____	____	____	____
4. Other (specify)	____	____	____	____
5.	____	____	____	____
Ward Functions:				
1. Group meetings.	____	____	____	____
2. TV.	____	____	____	____
3. Bus rides.	____	____	____	____
4. Parties.	____	____	____	____
5. Reading.	____	____	____	____
6. Other (specify)	____	____	____	____

E. INTEREST IN LEAVING HOSPITAL.

___ 1. Talks about wanting to go.
___ 2. Anxious to leave.
___ 3. Appears indifferent.
___ 4. Does not seem to want to leave.
___ 5. Ambivalent.
___ 6.

F. ATTITUDE TOWARD WORK.

On Ward:

___ 1. Takes initiative to do things needing attention.
___ 2. Does what is expected.
___ 3. Does assignments adequately.
___ 4. Does assignments poorly.
___ 5. Complains about assignment.
___ 6. Needs reminding to do assignments.
___ 7.

I.T. Assignment:

___ 1. Likes his work.
___ 2. Passively accepts assignment.
___ 3. Complains about work.
___ 4. Often tries to get out of work.
___ 5. Refuses to work.
___ 6.

G. COMMUNITY CONTACT.

	How often in month?
1. Has visitors.	____
2. Visits relatives.	____
3. Goes to Honolulu - Kaneohe.	____
4. Did not leave Hospital.	____

H. PHYSICAL - MEDICAL

No	Yes	
___	___	Required Medical Attention: (specify) ____
___	___	Medication: (specify) ____

APPENDIX VIII

Bibliography

Allport, G., Pattern and Growth in Personality, Holt, Rinehart & Winston, N.Y., N.Y., 1961

Brockman, S., Ed., "Problems Unique to the Rehabilitation of the Psychiatric Patient," St. Louis Hospital, St. Louis, Missouri, November 1963

Cook, Elwyn C., M.D., Ed., "Hospital Improvement Project," MHO 2076-02, Hawaii State Hospital, Kaneohe, Hawaii, June, 1965

Cummings, J. & Cummings, E., Ego and Milieu, Atherton Press, N.Y., 1963

Dorgan, J., "Observations on Industrial Therapy in United Kingdom, Mental Hospital," Canada's Mental Health Bulletin, Department of National Health and Welfare, Ottawa, Ontario, February, 1961

Fairweather, G.W., Ed., Social Psychology in Mental Illness, Wiley & Sons, N.Y., 1964

Flanagan, J.C., & Miller, R.B., The Performance Record, Handbook for Foreman and Supervisors of Hourly Employees, Science Research Associates, Chicago, Ill., c 1955

Frost, E.S., et al, "Community-Hospital-Industry Rehabilitation Program," Veterans Administration Hospital, Brockton, Massachusetts, 1961-1963

Gellman, W., et al, "Adjusting People to Work," Jewish Vocational Center, Monograph 1, 2nd., Ed., Chicago, Ill., June, 1961

Goldberg, L.R., "Peace Corps Selection Methods," Proceedings of NIMH Peace Corps Conference, Washington, D.C., May, 1963

Goffman, Erving, Asylums, Doubleday & Co., Inc., Garden City, N.Y., 1961

Greenblatt, M., & Simon, B., Ed, Rehabilitation of the Mentally Ill, Pub. 58, American Association for the Advancement of Science, Washington, D.C., 1959

Grob, S., & Olshansky, S.S., "Survey of Employment Experiences of Patients Discharged from Three State Mental Hospitals During Period, 1951-1953," State VRA & Massachusetts Association for Mental Health, Boston, Massachusetts, April, 1959

Izutsu, S., & Thomas, C., "Thomasat Test," OVR Project No. 41-56, Highland Shop, Highland View Hospital, Cleveland, Ohio, 1956

Jones, Maxwell, The Therapeutic Community, Basic Books, N.Y., 1953

Kam, V.Z., "Work Classification and Evaluation," Final Report VRA Project No. 503-6C, Lanakila Crafts, Inc., Honolulu, Hawaii, October, 1962

Rapoport, R.N., Rapoport, R., & Rosow, I., Community as Doctor, Charles C. Thomas, Springfield, Ill., 1960

Roethlesberger, F.J., & Orion, W., Management and the Worker, Harvard University Press, Cambridge, Mass., 1939

Street, D.R., Major, "The Place of Work Therapy in the Treatment of the Mentally Ill," Mental Hospital Service, American Psychiatric Association, Washington, D.C., 2:1-10, September, 1964

Wolfe, H.E., "A Survey of Vocational Rehabilitation at Longview State Hospital for 1959," Mental Hygiene, 2:167-170, April, 1961

Wrobel, A.M., "A Study of Industrial Therapy in British Mental Hospitals," Department of Public Welfare, Medical Services Division, State of Minnesota, St. Paul, Minnesota, November, 1965

Joint Commission on Mental Illness and Health, Action for Mental Health, Basic Books, Inc., N.Y., 1961