DOCUMENT RESUME

ED 042 210 CG 005 748

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TITLE	A Rehabilitation Living Unit in a University Dormitory Setting. Final Report.
INSTITUTION	Kansas State Univ., Manhattan.
SPONS AGENCY	Social and Rehabilitation Service (DHEW), Washington, D.C. Research and Demonstration Grants.
PUB DATE	Jun 70
NOTE	75p.
EDRS PRICE	EDRS Price MF-$0.50 HC-$3.85
DESCRIPTORS	Academic Ability, *College Housing, *College Students, *Dropout Prevention, *Emotionally Disturbed, Mental Health, Rehabilitation Centers, *Rehabilitation Programs, Student Adjustment, Student Needs, Volunteers

ABSTRACT

A rehabilitation living unit founded on the halfway house and therapeutic community models was established in a university residence hall to provide a resource for emotionally disturbed students who might otherwise require hospitalization or have to leave school. An initial baseline study indicated that a large number of scholastically able students drop out of school each year because of emotional problems. Over a period of seven semesters 52 male and female clients were treated in a living unit on two corridors of a large university dormitory. Approximately the same number of volunteer students lived in the unit and a group of students who were nominated but did not participate served as clinical controls. Results indicated that severely emotionally disturbed students can be provided satisfactory care in a rehabilitation living unit in a regular university dormitory without remarkable stigma or high risk to themselves or others. Outcome measures for clients showed a decreased drop-out rate, symptomatic improvement, and more favorable presentation of self to others as well as indications of increased personal comfort. (Author)

FINAL REPORT

A Rehabilitation Living Unit in a University Dormitory Setting

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June, 1970

This investigation was supported in part by Research Grant No. RD-2053-P from the Division of Research and Demonstration Grants, Social and Rehabilitation Service, Department of Health, Education and Welfare, Washington, D. C. 20201.

SIGNIFICANT FINDINGS FOR REHABILITATION AND SOCIAL SERVICE WORKERS

Ordinarily the drop-out rate for students nominated for a special service such as this one is very high. Intervention by means of a therapeutic community approach increases the likelihood of persistence in college.

Personality measures show symptomatic improvement and more favorable presentation of self to others as well as indications of increasing personal comfort. Both clients and controls showed these changes. There was no differential superiority of client vs. clinical controls, however, the client group was more disturbed on initial status than the control group.

Although the client makes relatively intense use of medical services while a project member, he typically uses less services after he leaves the service--no more than normal volunteers.

Much of the value of such a program is attributed by clients to the informal relationships with their project peers. These relationships are judged by clients to be as important as professional counseling or psychotherapy.

The characteristic pattern of change in interpersonal relations has been for clients to shift from a barren social life to developing a few intimate, lasting ties with other clients and/or volunteers.

A good rehabilitation living unit can operate successfully without remarkable incidents and facilitate the resolution of problems associated with the development of relationships with the opposite sex.

A small unit with a capacity for ten clients and ten volunteers seems adequate for a university of 13,000.

The stigma of living in such a unit is probably no greater than that for use of other psychological services.

Maximum benefit from the living unit takes place in two or three semesters.

A follow-up conducted in the last year of the study among those clients who had been out of the project for one year and a comparable group of controls showed relatively good functioning for both groups. There was, however, some evidence of selectively greater participation in the follow-up by the more successful clients.

Most of those interviewed at follow-up were continuing their education or involved education or training. A long range follow-up of the entire samples of the clients, controls, and normal volunteers to assess long-range effects on the community adjustment should be undertaken.

A complex network of relationships with other university departments must be established for a viable rehabilitation living unit program.

Having the unit under the administration of a mental health section of student health or a counseling center are equally feasible. It seems desirable that either of these services be given complete authority over the unit to minimize conflict with housing and food service.

Once established the staff investment can be largely confined to providing group services for all project members and consultation to housing staff and the project students.

An important contribution of the research was methodological contributions in two areas: one, the development of the Activity Record, which measures social isolation-involvement; and two, the measure of adjustment vs. severity of disturbance by a psychophysical method, direct magnitude estimation.

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ACKNOWLEDGMENTS

This project has required the active support of many persons in addition to those whose collaboration has been recognized by authorship on project publications. President James A. McCain's interest in the individual student as well as in this program per se was an important factor in our being able to take some of the necessary risks to begin the rehabilitation living unit. Vice-President Chester E. Peters and Hilbert P. Jubelt, M. D., Director of Lafene Student Health Center, have offered sustained administrative assistance as well as vital help during some critical periods. Henry M. Flowers and B. S. Lacy, M. D. have contributed substantially to the development of the treatment philosophy, its implementation and coping with the day-to-day demands and problems inherent in such an undertaking. Joy Cadiz Menne and Danielle Haygood have shared significantly and carried major responsibility in the development of some of the research methodology. Leon Rappoport, Ph.D., Kansas State University has had a profound influence on the scientific aspect of our endeavor. Two outside consultants, Edward D. Greenwood, M. D., of the Menninger Foundation and William Key, Ph.D., Denver University, have been outstanding not only for their professional and scientific wisdom and ingenuity, but for giving their personal warmth and hopefulness in some of our turbulent times.

INTRODUCTION

Whether one views findings from national surveys (Gurin, Veroff, and Feld, 1960), metropolitan areas (Srole, Langner, Michael, Opler, and Rennie, 1962), colleges and universities (Farnsworth, 1966; Barger, 1970), or one's own setting, mental and emotional problems abound. Estimates from the works cited above range from 10% to 85% using different samples and criteria of disturbance. In colleges and universities, 10% is an oft-quoted figure for those with psychiatric diagnoses. In terms of annual use of counseling and mental health services, figures run as high as 25% of the population per year.[1] On many campuses, including ours, 8% to 10% of the student body uses counseling or mental health services each year.

Most campuses of middle and large-sized universities offer conventional services: counseling or psychotherapy, medication, psychiatric consultation, chemotherapy, and brief hospitalization in a student hospital. These conventional services show remarkably little variation across colleges, nor has there been much change in the thirty or so years in which such services have been offered.

The severity of disturbance among those in the late adolescent and young adult years is considerable; this group is disproportionally represented in the population of psychiatric hospitals (Greenwood, 1969). This overrepresentation takes place even though special programs for adolescents lag well behind the need for such services. In university settings there has been concern with how to manage the borderline schizophrenic (Arnstein, 1958).

Educators and student personnel workers have long been concerned with enriching the college experience outside the classroom. As higher education evolves to the multiversity and suffers from the various dehumanizing, impersonalizing influences, some colleges have tried to cope with the growth by residential colleges which involve creating small groups of students who live together and are taking similar curricula.

The value of the small group experience is being given increasing recognition in psychiatric treatment settings (Cumming and Cumming, 1962) as well as in enhancing interpersonal skills among normals (Bradford, Gibb, and Benne, 1964). The halfway house movement also relies heavily on the small, achievement-oriented, democratic society (Doniger, 1970; Gelineau and Kantor, 1970; and Raush and Raush, 1968).

Except for group counseling and psychotherapy and a variety of sensitivity group experiences now being offered on campuses, the therapeutic values of the small group have not been utilized. Although there has been

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[1]Unpublished findings, University of Minnesota 1953-1954, and informal report of sum of percentages of students seen at Counseling Center and Psychiatric Service, University of California, Berkely (assuming no overlap).

considerable emphasis on the constructive value of the living group in psychiatric settings in halfway houses, residence halls, and residential colleges, the therapeutic use of college living groups has, until the advent of our program, been neglected and ignored.

It is recognized that individuals with severe emotional problems need more of a continuing treatment influence than an outpatient setting can provide. The structure, support, and confrontation possible in a rehabilitation living unit or therapeutic community should greatly enhance a student's well-being, recovery, and scholastic performance.

For our setting as well as others, students with emotional problems utilizing psychological services are of average academic aptitude, but their drop-out rate is high (Shepherd, 1965; Hoyt and Danskin, 1961; Sinnett, Friesen, Wiesner, Danskin and Kennedy, 1965). A program of special assistance is essential if these students are to complete degree requirements. In many instances, of course, their termination or interruption of their education is planned or recommended. Often students, their families, college administrators, physicians, and mental health professionals agree that withdrawal from school or entering a psychiatric hospital are the preferred alternatives. Yet many therapists and counselors assume, warily, responsibility for helping these high-risk students. The use of the living group as a rehabilitation resource of demonstrated value to supplement conventional services seemed overdue.

By a means of a planning grant the investigators were able to explore the feasibility and modifications of existing hospital and halfway house programs necessary for adaptation to a rehabilitation living unit in a college setting. In the planning process two approaches were used: visiting model programs and a conference of resource people. The conference consultants were also used to help design an evaluation study. Some of this early work is described in two publications (Sinnett, Friesen, Danskin, Kennedy, and Wiesner, 1966; Sinnett, Wiesner, and Friesen, 1967).

Kansas State University is the oldest land-grant college in the United States. It is located at Manhattan, Kansas, a community of 27,200 persons. Like many other land-grant colleges it is in an evolution from an applied, technical orientation to developing a strong program in arts and sciences. It has approximately 13,000 students, 80% of whom come from in-state. Many of our students come from rural or small-town backgrounds with a strong emphasis on religion. Each year approximately 10% of the student body seeks psychological services from the Mental Health Section of the Lafene Student Health Center or the Counseling Center. In these two agencies a broad range of disorders from schizophrenia to the developmental problems of adolescence is found among clients. The population of students is probably similar to that found in land-grant colleges throughout the United States.

METHODS--PROGRAM AND RESEARCH

Program

Development. Both the halfway house and the therapeutic community models have had a profound influence on the development of our project. In particular, the Woodley House (Rothwell and Doniger, 1966) and Wellmet House (Kantor and Greenblatt, 1962) programs affected our planning most significantly. During our planning grant year we visited a number of halfway house and therapeutic community programs. There is no better way to learn about these approaches than visiting, or best of all, living in them for a few days.

Huseth (1961) has used the term "preventive halfway house" to refer to programs designed to prevent hospitalization. It would seem that our program might be subsumed under this broad definition rather than being primarily like the halfway house whose aim is to facilitate transition from hospital to community.

Perhaps the most vital and consuming aspects of administration appear in the periods of planning and initial operation and during times of growth and expansion. After one has stable funding, staff experienced and capable in their respective roles, adequate space, and established policies and relationships with coordinated services, decision-making and efforts at influencing others than the clients diminish. The program then may operate like a smooth-running machine. Such structures as civil service or institutional policies with regard to personnel, budget and the like, phase in and exert a stabilizing influence. Being well-trained to cope with intrapsychic and interpersonal difficulties is not enough; one may easily underestimate the range and intensity of problems of program development. It seems that crises among staff members or with higher level administration or the community are more potentially threatening to the existence of a program than crises with clients or patients.

> The single greatest threat to the continuation of our program followed a news release that had been carefully prepared by our professional staff in consultation with experienced journalists Papers throughout the state had prominent articles speculating wildly about free love in our "coed project." A correspondent from a prominent national weekly showed interest in photos and a visit for thorough coverage until he learned that our male and female students did not have adjoining bedrooms. The President of our University received letters, and letters were forwarded from members of the Board of Regents, the governor, and legislators. Although we were supported by our administration, had we not had outside funds and been operating for a time free of incidents of such magnitude as to attract publicity, it was our opinion that we might have had to delay or discontinue our project.

From a social-psychological standpoint, many of the problems of establishing and developing a new rehabilitation program such as ours are understandable as products of the distribution of power. When one attempts to introduce a new program, one finds out who his friends or enemies are. The act of introducing or intruding, depending on one's

perspective, functions much like a chemical reaction in which the introduction of a reagent precipitates out a previously invisible substance. In this instance one should extend the analogy to include two precipitates: one for, and one opposed to a novel program. A more topical analogy might be that of the introduction of student dissent to a university setting. Where surface harmony preexisted, the university community becomes divided into conservative and liberal factions. The outcome of introducing a program is not necessarily predictable. Some naive, unsophisticated persons may reveal considerable humanistic interest and common sense understanding of the potential worth, and some sophisticated colleagues may consider the program faddish, superficial, and of little worth in patient care. Many individuals respond to perceived threats to their power. In the history of our program physicians were initially particularly among those most concerned about standards of patient care. Some students in the residence hall were concerned about adverse effects on the living conditions in their dormitory. In our setting, physicians, dean of students personnel, housing personnel, and high level administrators exhibited both feelings of being threatened as well as being supportive to our cause. It would be a crass oversimplification to offer that there were just pro and anti forces, however. Many people initially experienced both kinds of feelings. Questions such as "What will this do to me (or my agency or institution)? For me? For our students?" were widespread. Fears associated with the possible malignant influence of clustering disturbed students together with normal volunteers were expressed and felt. Kandel and Williams (1964) have treated the above concerns within the context of social systems theory.

Over time, as one operates with a modicum of success, the service becomes established, and its benefit/harm potential to the clients and other persons in close proximity to the clients becomes evident; there is a decay of the threat potential as well as a decline in the enthusiasm which often accompanies new programs.

Personnel. It has been implied above, but it is worth reemphasis, that the professional person actively involved with building and maintaining a halfway house program must be able to function effectively in roles other than that of a psychotherapist or diagnostician. Fund raising, public relations, active collaboration with a variety of other professional and educated lay persons are necessary skills. Someone who has or can assimilate the community mental health or rehabilitation approach is desirable.

In the initial stages it would seem that a full-time person is needed for establishing a program. When we consider the diverse backgrounds of some of the outstanding people we have known in the field, the only common elements we find are that they are thoughtful, imaginative, flexible, sensitive, social-service minded, and not dedicated to the medical or traditional mental health models. In addition to the established mental health professionals and rehabilitation counselors, sociologists, occupational therapists, and dedicated lay persons (e.g., Wells, in press) have done exemplary work in the field.

After the initial stages, the aforementioned full-time position could be reduced to one-quarter time. In residence one needs a key person or a married couple. The essential requirements here are not educational but personal. The individual in residence should be interested in helping disturbed others and should not be threatened by them. An artful blend of concern that is humanistic rather than paternalistic and a responsibility-fostering attitude and behavior are necessary. Most halfway houses and transitional programs are miniature achievement-oriented societies that impose expectations of work, training, or education as an avenue toward a self-sufficient, autonomous life. The resident director should have the potential for the personal growth and judgment that enable him to decide which problems he can handle himself, when he needs consultation, and when he has an immediate emergency requiring decisive action. Professional staff and consultants must respect the resident director and his judgments and be responsive to his needs for nurturance and self-indulgence. Some provision for relief coverage from a coordinate or subordinate person for a day or a day-and-a-half each week is essential.

Regular consultations from a psychiatrist and a physician are desirable. We have found that, after the planning stages, about two hours weekly consultation from a psychiatrist are sufficient. It is best if one has a consultant who can be flexible as to whether he is involved in assessing patients, consultation with individual staff members, or participating with the staff in treatment planning conferences. With respect to medical consultation, no very clear guideline can be offered other than "consultation available as needed." Having medical and psychiatric workups prior to providing services in the transitional facility enables one to operate without substantial part-time involvement from either of these disciplines.

One final comment concerning staff selection. As has been found in therapeutic community settings, it is very important to have staff members who can function as a team. Unlike private practice or the clinical setting with weekly staff meetings, interdependence and trust and truly coordinated efforts are needed. Individuals who need a well-defined status hierarchy may not adapt well to such a program.

Volunteers. Volunteers have been a valuable resource to our clients and an essential part of our rehabilitation living unit (Sinnett and Niedenthal, 1968). An attempt is made to secure normal college students of both sexes as volunteers by asking student personnel workers and faculty to submit names of those students who they feel are relatively mature and interested in community service, and persons whom fellow students find approachable and friendly. These nominees, if interested in becoming a volunteer, are interviewed by one or more members of our clinical staff, and selection is based on this interview. No selective criteria with respect to class, grade-point-average, or major have been imposed. Initially a bias toward choosing upperclassmen was noted, but it was felt that such a selection might create an undesirable social distance between volunteers and clients. We have come to feel, however, that it is desirable that volunteers have had the stability of one semester

at the university before joining the project. The intensive group livir experience may, under these circumstances, be disruptive for them. A diversity of academic majors has seemed desirable since it was not intended that volunteers be primarily preprofessional persons who would see themselves as "junior therapists."

The initial conception was that the volunteers were to be role models: good students and examples of good adjustment. Both clients and volunteers rejected this role differentiation, however. It seemed that being a model may be artificial in a natural living setting as opposed to a treatment setting where there are many supports and sanctions for maintaining well-defined occupational roles and status relations among treatment personnel and patients. A significant number of our volunteers have had counseling or psychotherapy and are interested in helping others and maintaining informal associations with professional staff.

The volunteers in the project fit into two general categories as defined by other researchers. First, they qualify as indigenous non-professionals as defined by Reiff and Riessman (1965). They are students and are faced with problems similar to those faced by clients, although problems encountered by volunteers are generally less severe and are typically dealt with more successfully. Second, the volunteers fit rather closely into the existentialist style as defined by Gelineau and Kantor (1964) in that the volunteers do receive and often expect to gain as much as they give. They are usually impelled to reflect upon themselves more honestly and frequently gain in coping ability as a result of helping others deal with problems.

In summary, the role of the volunteer in the treatment process of his emotionally disturbed peers is one of relatively constant, intense involvement, but it is also largely undirected, although consultation with residence hall and professional staff is available. Some of the volunteers do have professional aspirations toward a career in the field of mental health, but they are in the minority. On the whole, these are students who have a non-professional view of the treatment process. They are encouraged to offer friendship and acceptance and to share their own thoughts and feelings with fellow project members on a peer basis. The volunteers do not identify with professionals or with the agency, but tend to identify with the clients and see themselves as members of a group with problems to solve.

Staff Meetings. For smooth operation of our program we have had three staff meetings weekly. One is concerned with reviewing candidates for the living unit. The therapist presents the case and, in addition to the usual case conference discussion questions, particular consideration is given to the client's social relationships and possible need for inpatient care. From our population of candidates, approximately 25% join the program. Thus, many more cases are reviewed than accept the recommendation or are accepted in the program. Not only clinical considerations enter into this mutual selection process--some withdrawn

prospective clients are satisfied with their social adjustment, some individuals indicate they wish more private living arrangements, and some feel that residence halls have too many restrictions.

We also have a treatment planning staff that attempts to utilize the living unit to meet an individual's special needs. Does the client need structure? Blunt confrontation? Support? Is he a suicidal risk? Will he be impulsive? The resident director participates in this meeting and takes an active part in planning and conveying his observations and reports from other staff and students in the living unit.

Volunteers also attend this staff meeting to lower barriers to approaching staff as they need consultation to cope with problems in group living, to give them feedback about their performance, and to help them set goals as to what they want from the living unit experience. Without some planned contact such as this, many complain about lack of structure, distance from the staff, and dissatisfaction with their role as volunteers. Many, too, are seeking greater personal understanding and hope to learn about how to relate and help others effectively. They also have problems typical of the late adolescent and college student, but usually not as intense as the clients.

Our third conference is a multi-purpose one in which emphasis is given to the program as a whole and the current group climate and social structure. Disciplinary matters, morale of volunteers, conflicts among cliques, anti-staff sentiments, scholastic performance of the group, and modifications in the program are some representative topics and recurring items. Consultants from the office of Dean of Students and the Counseling Center attend by invitation.

In addition to the three conferences above, the research staff meets separately and limits its concerns to problems of data collection, analysis, modification of procedures and meetings with outside consultants. The most significant contribution the research team has made to the ongoing operation of the living unit withing the staff meetings is through reports from the participant observers. As a part of the research, two paid volunteers, participant observers, one male and one female, are debriefed weekly in order to provide us with a narrative account of life in the project. The research staff member who does the debriefing attends project meetings and contributes significant observations about individuals, subgroups, and the group atmosphere. This information has helped us understand current problems and anticipate and intervene in other evolving crises. The participant observers are known to the project members, and their role has generally been perceived as benign and a necessary part of our research effort.

Although the group meetings above are the <u>modus operandi</u> of our particular program, it seems that with the possible exception of the research conference, the <u>functions</u> carried out by these conferences ought to be considered in planning a program.

Social Atmosphere of the Living Unit. The central issue in establishing a program such as ours is how to induce a climate conducive to dealing constructively with human problems. We face this challenge at the beginning of each academic year because the vast majority of our group is new. This turnover also has something to recommend it in that we have an opportunity for a fresh start. What can we offer that other group experiences don't?

Ideally the living unit differs from the social system and the treatment system of the university community. With respect to the social system, students are encouraged to help one another and to be honest, open, and confronting. In the ordinary residence hall, deviant behavior is often responded to with rejection, hostility, anxiety, and withdrawal of interest by fellow students or residence hall staff. In addition to providing support and, for some, structure, students are encouraged to deal with immediate problems in group living by feedback and confrontation. The importance of positive regard for the individual during the confrontation process is emphasized. Individual responsibility is an expectation for clients and volunteers alike.

Many groups could and do endorse and profess values such as these: e.g., the Christian fellowship of the church group and "brotherhood" of the fraternity. It is our belief, though, that many groups become so involved in other less avowed pursuits and methods that suppress spontaneity. Such factors as prestige, conformity, ritual, and the business meeting format serve to divert many groups from an emphasis on helping, confrontation, and positive regard. Maintaining and demonstrating concern, especially by handling of crises as well as by participation in group meetings and ongoing treatment relationships, is an important staff function.

Perhaps our main functions are to establish a contact among staff and group and to set the stage and participate in the action. Originally we felt that our weekly group meeting with the project members was the important element in establishing and maintaining this atmosphere, but we have come to feel that the students' interaction in their day-to-day living may be the most important aspect of the program. In some respects our group is much more like an extended marathon experience than a psychotherapy group.

We have also redefined our responsibility to the group and the housing staff. Originally, perhaps because of our own doubts about the potential of student volunteers and housing personnel and the scrutiny of our colleagues, we were inclined to direct the program. We have shifted to the role of involved consultants readily available to staff and student, but leaving primary responsibility for handling day-to-day concerns with housing staff, clients, and volunteers. Establishing these roles evolved through a process (repeated anew with each group) of ascertaining: 1) what situations can be handled on-the-spot by hall personnel and students; 2) when professional consultation is needed; and 3) what constitutes an emergency requiring immediate action to get the troubled person the help he needs (e.g., hospitalization on campus). Areas of uncertainty are best resolved by the dictum: "When in doubt, call us out."

Relationships to the Public, the University Community, and Outside Visitors. Although we have used brochures, planned news releases, and had conferences with faculty, administrators and other interested parties, we have found no written or oral method nearly as effective as a visit to the project--usually beginning with a meal. Instead of a general idea and a fuzzy recall that we have a special program in a residence hall, visitors ask the right questions, interact with project members, and experience the program. Project members are informed in advance so that if they wish they may meet guests, host them, or avoid them as they choose. Invariably visitors feel that they have more of an intuitive, experiential understanding of the program when they have had an opportunity to meet for a time with project members in the absence of our professional staff.

We also had an honarary board of advisors comprised both of prestigious leaders in the university community as well as leaders in the community. The reason for constituting these groups was to inform these persons and to get their endorsement of our efforts. They have not conducted official meetings but have been used consultatively on an informal basis. Perhaps the best concrete show of faith in our efforts has been that several offspring of faculty and administration have been in our project as clients and volunteers.

Initially we were quite concerned about avoiding stigma, and we had the idealistic hope of preventing any stigma from arising. As a matter of fact, we are not well-known on campus, but for those students, faculty and administration who do know about us, attitudes are remarkably congruent with those held with respect to other student personnel or mental health services. Some are proud that our campus has such a program, and some feel we are overly permissive and coddling students who should not be in the university. For the campus as large there is about the same "baseline" of stigma that there would be for seeking services at the Mental Health Section of the Student Health Center or the Counseling Center. In opposition to this sentiment there is also a strong feeling that "people are damn fools if they don't get the help they need."

Concluding Comments--Program Development and Operations. It may well be that a charismatic administrator is needed at the outset and during periods of expansion and that a more orderly, conventional style is more effective for sustained operation. A well-rounded staff should perhaps have both kinds of influences for optimum functioning of a project. Also, the flexible, adaptive kind of modification and demonstration and action research that has characterized our growth does come into conflict with the values of the more tough-minded researcher bent on evaluating program effectiveness. One must keep in mind that the effects of a total program are being assessed rather than changes in an isolated variable and therefore modifications and improvements during the course of a study are warranted. Clearly the administrative staff of a halfway house program should not be restricted to pure types of the business manager, the pure researcher, or the ardent clinician who is devoted to individual psychotherapy and assessment.

Research

Project research was directed at study both of outcome and of process. Evaluation research is relatively well-established from the standpoint of methodology and kinds of instruments employed. However, experimental studies of social interaction over time in natural living groups are quite rare, and it was necessary to develop new, or to modify existing, instruments for the present research.

We were interested in the study of social behavior and its change over time because of the nature of the living unit client population. These clients typically have severe problems in establishing and maintaining social relationships and yet are desperately lonely. Some, too, have had a modicum of success at developing episodic and superficial ties but have experienced failure in finding enduring intimacy. For adolescents the development of close meaningful relationships with peers is especially important. Most of our Ss have failed in this developmental area. An additional goal in studying the ongoing behavior of living unit clients was to learn about the helping process through whatever means were possible without intruding on students' privacy or disrupting the total treatment process.

This section will present the methods used in both the process and outcome studies, and the instruments used may be seen in Table 1.

Subjects. Three groups of Ss were studied. The clients (Cs, N=55) were college students living in the unit who were referred by counselors. They all received individual counseling as a requirement for participating in the unit. The volunteers (Vs, N=37) were students who volunteered to live in the unit. Clinical controls (CCs, N=51) were students who were nominated by counselors for the living unit and were receiving counseling only. It was hoped that in order to be as much like Cs as possible, the CC group might be made up of students who could not be accomodated in the project. However, with Kansas State University's population of approximately 13,000 students, this was not possible. Thus the CCs were unlike the Cs in that they had been offered the rehabilitation living unit as a resource but had not elected to enter. Although we do not know why many of these students decided not to use the project, it is likely that some preferred the freedom of apartment living to the regulations of the dormitory. Some may have been reluctant to leave a fraternity or sorority house and others may have feared the close interaction which they were told was part of project living. These disadvantages might also have occurred to the Cs who entered the project; however, it is possible that the client group experienced a greater feeling of need for help.

These three groups of subjects resembled the general college population in being distributed across grade classification from freshman to graduate student, and in age, from 17 to 25--with one or two exceptions, who were older.

Table 1

Methods Employed and Schedule of Data Collection

Method	Variable	Schedule of Collection
Lounge Observations	No. of diff. P.M.s* observed with	Continuous
Dining Room Observations	No. of diff. P.M.s* sat with Above chance tablemates Gregariousness Index	Continuous
Monday Meetings	Mean no. of responses Mean no. of responses each category	Weekly
Participant Observation	Narrative materials Ratings of behavior	Weekly
Activity Record	Time spent alone, weekday Time spent alone, weekend Time in conversation, weekday Time in conversation, weekend No. of contacts, weekday No. of contacts, weekend	3 times a semester
Sociometric	No. of friendship choices made, rec'd. No. of mutual friendship choices No. of mutual helping choices made, rec'd.	3 times a semester
Adjustment Rating		Entrance
Diagnosis		Entrance
Leary Battery	MMPI TAT ICL self ideal self mother, father	Entrance & exit
Attitude Tests	Opinions about Mental Illness Semantic differential Nunnally test	Entrance & exit
Staff Ratings	Dom staff rating Lov staff rating	Beginning and end of semester
Terminal Interviews	Ranking of sources of help	Exit

*P.M.=Project Member

An initial baseline group was studied prior to establishment of the living unit; it consisted of 104 Ss who were considered by therapists to be sufficiently disabled so as to benefit from such a living unit. Measures collected for this group were diagnostic categories, intellectual measures, and, when available, MMPI profiles.

All Ss were paid for their participation in data collection.

Overview of Data Collection. The most important objective in the present study was to determine whether change in behavior occurred in Ss residing in the rehabilitation living unit. Thus many measures were taken on a pre-post schedule--at the beginning and end of each student's experience in the project. Others were taken at the beginning and end of each semester, and much of the observational data was collected on a continuous basis. Reflections on experience gained during the first semester of operation brought about several methodological changes. One of these was a modification of the data collection schedule, changing from a two-part to a three-part division of the semester. A detailed summary of the data collection schedule for each instrument is presented in Table 1.

Process Research. Characteristically therapeutic community programs have not systematically studied social behavior. We felt it desirable in the present project to learn not simply whether a therapeutic milieu had been established, but, hopefully, in what way the helping process was operating. Most social-psychological study of group processes has been conducted in laboratory settings. This literature offers little methodological help for those interested in the study of natural social behavior in an established living group. Therefore considerable effort has been invested in the development of instruments suitable for this project.

Since there was no established precedent and no apparent "best way" to study social interaction, it seemed necessary to study several aspects of social behavior in an effort to discover something about the helping phenomenon. This has produced some redundancy of information which has proved valuable in validating the various instruments employed, and has provided a means for exploring varying approaches and attempting to determine which are most profitable.

Three general methods were chosen with which to approach the problem. All of our social-psychological instruments can be classified as representing one of these methods. All three are methods of observing behavior, but differ in distance from the raw data, degree of complexity, degree of possible contamination, and the kinds of data produced. The three approaches are direct observation, indirect observation, and involved observation.

Direct Observation. Direct observation was conducted by neutral observers observing behavior in public areas of the dormitory. These methods were used with living unit members only.Neutral observers were students who were not involved in any administrative or authoritative role in the project. Ss were informed that the neutral observers would occasionally appear in the dormitory lounge areas, in the dining hall, and at the weekly meetings of project members and staff.

Observations were made in the dining area and lounge areas continuously throughout the semester with the schedule of observations balanced so that an approximately equal number of observations was made at any particular time of day or meal for each day of the week throughout the semester. Dining room observations consisted of where Ss were sitting, and with whom. Data obtained from these observations was number of tablemates above chance, number of project members sat with, and a gregariousness index. Lounge observations recorded with whom S was seen and the activity in which they were engaged. Stability of these and other observational measures over time is found in Table 2. The forms for coding observations are in Appendix A.

Direct observation was also used to record social interaction at project meetings. These meetings were conducted for the purpose of discussing business or special problems in the living unit and were usually attended by all project members. Length of the meetings varied from one to two hours but meeting place and physical arrangement of the room was held constant over the semester. The observational technique used was a modified version of Bales' interaction process analysis (Bales, 1951). Using this system the observer coded each statement made by an S into one of twelve affective categories. The resulting measures were frequency of response at meetings, and frequency of response in each of the Bales categories. Interrater reliability was good for the four large categories of the system ($r = .76$) but was not satisfactory for the 12 more specific ones. The Bales categories and the coding forms used appear in Appendix B.

Indirect Observations. Indirect observation was gained from S's own reports of his behavior. The methods of indirect observation employed included a sociometric questionnaire and the Activity Record (AR), a measure of social isolation-involvement.

The sociometric technique was of the traditional type in which S is asked to name those he considers his close friends and those he would not like as friends with the added variant of asking S to indicate those persons to whom he would and would not turn for help (See Appendix C). Variables derived from these data are number of friendship and helping choices made and number received, as well as number of mutual friendship and helping choices. Sociometric

Table 2

Stability of Social-Psychological Measures Over Time

Variable	r
Activity Record	
TSA Weekday	.30
TSA Weekend	.66
TC Weekday	.33
TC Weekend	.47
NC Weekday	.20
NC Weekend	.52
Dining Room	
No. of Different Unit Members Observed With	.03
No. of Tablemates Above Chance	.024
Gregariousness Index	.61
Sociometric	
Friendship Choices Received	.56
Friendship Choices Made	.45
Helping Choices Received	.66
Helping Choices Made	.43
Mutual Friendship Choices	.35
Mutual Helping Choices	.36
Monday Meetings	
Mean Frequency of Response	.36

data was collected three times during the semester.

The AR was a method of indirect observation which was also collected three times during the semester. Because it was easily obtained and could be used with Ss who are not accessible for direct observation, it was used with all groups of Ss. The forms for the AR and the criteria for scoring the protocal may be seen in Appendices D and E respectively.

The AR was developed to provide an index of social isolation-involvement which would be reliable, discriminate between normal and disturbed Ss, and could be used for Ss not residing in the living unit.

An interview procedure was used whereby S was asked to relate his activities on the given day in order of occurrence from the time he awakened to the time he went to bed. Ss activities, the time spent in each, the number of people involved in each activity, and the place in which it occurred were recorded by the interviewer.

The analysis was based on records of activity on six complete days during the semester, three for a weekday and three for a weekend day. This schedule provided comparison of data early in the semester with the middle and end, as well as analysis of weekday-weekend differences.

Three variables which seemed particularly relevant to the goals of our program were selected for study. These are: 1) percent of total time awake spent alone (TSA), 2) percent of awake time spent in conversation (TC), and 3) number of contacts with others (NC). These variables have proved reliable over time and relate to other social-psychological variables. Inter-scorer reliability is high (r = .96 and above). TSA has been the most useful of the three, and relates particularly well to clinical scales on the MMPI. Of interest are the significant correlations of TSA with the Social Introversion scale (r = from .32 to .55) and the Depression scale (r = from .32 to .57)

Involved Observation. Involved observations were those which were obtained from a person who was involved in the rehabilitation living unit. This included both the material gained from participant observers, and that secured through interviews with project members when they leave the unit.

Participant observation has been used extensively in sociological and anthropological studies and often produces information which is not available using other methods. This approach was particularly important to us since no regular staff member resided within the unit. The participant observer (PO) provided material about day-to-day events in the unit which was not available to an observer who was not a group member.

As is traditional, the PO functioned as a volunteer in the project and participated in weekly meetings and research activities. Although project members were aware of his position as PO, for the most part this activity did not appear to interfere appreciably with his behavior as a project volunteer.

Each semester one male and one female participant observer lived in the unit and was paid for their participant observation. Neither of them needed to be trained social scientists for they were closely supervised and trained by a full-time staff member and data collected from them was by means of a semi-structured debriefing interview. The interview yielded systematic information which was then coded according to person observed and by content category. A copy of the interview schedule and content categories may be found in Appendix F. Although PO data was not directly quantifiable, use of the debriefing outline and a uniform cataloguing system allowed some comparisons of this material with other measures. By way of cross validation, comparisons were made between friendship choices on the sociometric questionnaire with friendships reported by the participant observers. These correlations were quite respectable ($r = .59$, $.40$, and $.66$ for Times 1, 2, and 3 respectively).

Another comparison was between a staff member's ranking of general "visibility" of one semester's project members with the number of lines and number of entries for each person in the PO reports. Rank order correlations were .42 for lines ($P \leq .05$), .59 for entries ($P \leq .01$), and .61 ($P \leq .01$) for lines and entries combined ($N = 24$). While done partly in an exploratory study, these correlations indicate that those individuals who are noticeable to other unit members are also those who appear to come to the attention of project staff.

In addition to weekly debriefing interviews the participant observers rated each project member on a five-point scale for each of the dimensions in-out contact, (around-not around), calm-excited, accepted-rejected, and socially outgoing-socially withdrawn. Although these data were not analyzed extensively, interrater reliability was generally good.

One additional method was used for acquiring involved observations. In this case the project member himself was the observer. At the end of each S's residence in the project, he was interviewed and given the opportunity to express his views about the unit. One of the most important functions of this material has been to provide clues for staff about the manner in which the living unit can be administered to best serve the students.

S was also asked to rank in order of value to him the sources of help available to him including contact with peers, counseling appointments, scheduled large and small group meetings, and periodic interviews with project staff.

Outcome Research. A number of measures were administered to all Ss at the beginning and end of their experience in the project or participation as a control S. Thus it was possible to make comparisons between groups as well as within groups and over time.

At nomination to the living unit each S was rated for adjustment on a five-point scale by three professional therapists. If S accepted project living or agreed to participate in the control testing, he was administered a battery of tests consisting of those used in Leary's (1957) multi-level interpersonal methodology: The Minnesota Multiphasic Personality Inventory (MMPI), the Interpersonal Check List (ICL), and the self-administered Thematic Apperception Test. Attitude data were collected at the same time using the Nunnally test (Nunnally, 1961), the Opinions About Mental Illness questionnaire (OMI, Cohen and Struening, 1962), and Osgood's Semantic Differential (Osgood, Suci, and Tannenbaum, 1957). The Leary Battery provides scales for a Love-Hostility factor (Lov) and a Dominance-Submission factor (Dom). S received a score for Dom and Lov on each of five levels of awareness. Staff members also rated project members (Cs and Vs) on the ICL at the beginning and end of each semester.

The Leary battery and the attitude measures were repeated at the end of S's participation. In the case of the C or V this was when he left the project; for the CC it was after two semesters.

Additional measures collected on Cs, Vs, and CCs were academic data including grade point averages and mean American College Test scores; demographic variables, college in which enrolled, in-state vs. out-of-state residence, town size, age, religion, percentile rank in graduating class, and information regarding continuation in school, graduation, or dropping out of school. Medical records from the Student Health Center were studied for number of outpatient visits, number of hospitalizations, length of hospitalizations, use of psychotropic drugs, and type of complaint.

Project members were interviewed when leaving the project for their impressions of the project experience, and a follow-up study was conducted in which 20 Cs and 20 CCs were interviewed after one year.

RESULTS--PROGRAM AND RESEARCH

A Clinician's Evaluation of the Impact of the Program

Relationships with Other Departments

The process of establishing a rehabilitation living unit necessitated active involvement with the university community. Planning had to be undertaken in conjunction with counseling center staff, health center staff, and personnel from the office of the dean of students. In addition much more involvement than usual was required with both housing and food service staff and residence hall staff in the dormitory in which the program was conducted. Administration of the fiscal aspect of the grant required working with the university business office and the comptroller's office.

In many instances the development of a close working relationship with other departments within the university contributed to the consultative function of our service. For example, from the halls in which the project has been located we have received substantially more referrals than from residence halls in general--both self-referrals as a product of our staff being present in the hall as well as referrals from hall staff.

Some special mention should be made of the involvement with housing. As Van der Ryn and Silverstein (1967) have pointed out, university housing administration is very rigid and bureaucratic. Peterson (1968) has also indicated that next to the Viet Nam war, deans of students regard dormitory and living group regulations as one of the most important sources generating student protest. The introduction of our program required some flexibility that administrative personnel in housing found hard to tolerate. Such a condition may seem at odds with a student personnel philosophy since the concessions we wished were oriented toward the individual student. Indeed there appears to be a significant conflict between those with a student personnel orientation in housing and those oriented toward business management. In terms of comparison with other models of operation, it seems that housing administrative personnel would much prefer that the role of the student be comparable to the paternalism in relation to a very young child or a patient in a mental hospital (Goffman, 1961). They would prefer to have rigid rules and that students accept these rules passively and be unquestioningly compliant, and well-behaved. The rules are often for the convenience of the administration (e. g., strictness and complexity of procedure regarding room changes) rather than being student-centered. It would be an improvement to shift to a hotel or resort management model where pleasing the guest and building an attractive program is emphasized.

The rigid, bureaucratic structure of the housing administration has been and continues to be the greatest threat to the continued operation of our program. Those planning to initiate such a service should give serious consideration to requiring a commitment of suitable space in a designated area of a hall as being under the administration of a mental health service or a counseling center, whoever has major responsibility for the operation of a program.

Housing administrative personnel show a truly remarkable lack of awareness or willingness to be influenced by data or observations concerning the patterns of social interaction within a residence hall. They seem quite defensive about their positions as "experts" in this realm.

The housing service has shifted us to three halls in our four years of operation. The first hall was an older residence hall which was small (60 person capacity) and homey. Food service personnel in this setting knew students by name and would fairly readily deviate from the strict routines observed in larger halls; e.g., offering seconds and holding a meal for someone late. The second hall was a 600 person high rise unit and the food center served approximately 1,200 people. Being on the same floor with the hall director was a distinct advantage in maintaining contact and operation with troubled individuals as well as assessing problems of the group as a whole (e.g., morale, concerns of volunteers and scholastic performance). In the 600 student, high rise hall where we have been located this past academic year food service operates for a dormitory complex of 2,000. The distance from the hall director (he's on first floor, project on 7th and 8th floors) and the staff assistant (project rooms were at the far end of the corridor from staff assistants) has reduced involvement with hall staff. Thus we have become more dependent on the project students themselves to report significant events and cope with concerns. The hall where we have operated this year has seemed much more like moving to a large, impersonal city. Relationships with food center staff have been far less cordial and generally more distant. Having men and women on separate floors has, as we had anticipated from an earlier experience with a similar arrangement, created a significant barrier between them. Liberalized visitation in rooms has helped to overcome this physical barrier somewhat. Both project staff and students have much preferred the smaller housing and food service units and having both sexes on the same floor.

As a result of our experience in three halls, we know that it is most desirable to have fifteen to twenty spaces that can be occupied by approximately equal numbers of men and women. These spaces should be clustered near a suitable area for interaction of the group as a whole, and on the same floor. After four years of operation with nationwide recognition of the innovative character of our service and the quality of our research, it is still not possible to meet these modest needs. This state of affairs would not be the case if we were running a special program for athletes, honors students, or minority group students. Both athletes and honors students have been provided special facilities for their programs.

Thus although it had been our expectation that the greatest hazards and problems would be with our clients, such has not been the case. The greatest threat to the existence of the program has been and is the stance of the housing administration.

Outside the university the major persons with whom we have collaborated on a continuing basis are the state vocational rehabilitation counselors. Some of our clients are VR clients. We have also had some referrals from those private practice and community mental health centers.

Client Gains

For many of our clients the project has served as an alternative to hospitalization. Many have suicidal thoughts and feelings and some need a sheltered group which can offer structure and support. A significant portion of our clients use medication, brief inpatient care in student health and a number have had, sometimes during the course of their treatment (most often prior to becoming our clients) psychiatric hospitalizations. There have been numerous crises, which have been handled well. We have had no suicides,

publicly disturbing psychotic behavior, or embarrassing escapades of a sexual nature or involving use of drugs. Our students have, as a group, had relatively few disciplinary actions taken against them.

Probably the most outstanding change for clients is the development of a few intimate, lasting ties. We have been surprised at the persistence of some of these relationships. The group as a whole has had five marriages within the group. Many students live together after leaving the group and continue to visit or write.

Case Study *

A case study may enrich the reader's understanding of the role of the living unit in the rehabilitation process.

Bill, 18, entered the university reluctantly and would have preferred to attend a local junior college rather than his father's alma mater. Two months later, at his father's suggestion, he sought help at the Mental Health Section of the Student Health Center where he complained of loneliness, obsessive worrying about both the past and the future, and an inability to study. Anxious and depressed, he had been calling his parents several times a day and driving home several times a week. Although miserable at Kansas State University, he was fearful of appearing a failure in his parents' eyes by leaving school. He expressed vague ideas of reference which he elaborated on in subsequent interviews, People, it seemed, didn't like him, talked about him, and vaguely conspired to cause him humiliation. Psychological testing and clinical evaluation revealed "schizophrenic reaction, paranoid type". Psychotherapy was recommended and Bill began seeing a counselor regularly.

His living situation, isolated and threatening, contributed to Bill's emotional distress. He was rooming in an off-campus apartment with an upperclassman whose popularity, especially with girls, was particularly threatening to Bill, who felt intensely isolated and inadequate in contrast. He accepted the staff's recommendation that he join the rehabilitation living unit and moved in shortly after Thanksgiving.

In therapy sessions, Bill revealed that he is the oldest of five children, and was born and reared in the small Kansas town where his father works as a bank official. The mother's parents resided in the community and exerted a dominating influence on the family during Bill's early years. As a very young child he was overprotected by his mother whom he later came to idolize as a remote and beautiful woman. His early longings for his mother were intensified by her tendency to turn to him as a substitute love object as the father devoted more of his time and interest to his work. The advent of siblings, however, displaced Bill as the exclusive object of his mother's attention; and he developed intense feelings of rivalry with his younger siblings, particularly the second eldest, his sister. At the same time, he worked hard at being a "good boy" and was vividly impressed by church sermons which promised firey punishments for "sinful" thoughts and deeds. His struggles to establish a place for himself in the family were vastly complicated by crowded living conditions which resulted in Bill's sharing his parents' bedroom from the age of 11 through 14.

Throughout grade and high school he saw himself as weak, inferior and "different" from other boys and in general alienated from his peer group.

*This case study was prepared in its entirety by Margaret Grayden, ACSW.

His one close friend in high school was a physically handicapped boy with whom he felt able to compete successfully. Although he longed to date in high school, primarily as a way of being more like other boys, he was never able to overcome his fear of asking a girl to go out with him. One rather consistent source of gratification during his school years was music in which Bill showed some promise, but not the ability or sustained interest to apply himself.

Bill was a member of the project for a year and a half and in therapy for two years. In his first two years of college Bill struggled unsuccessfully in business courses, which he did not enjoy but took in order to be a businessman like his father. He suffered recurrent bouts of depression because of his poor grades and episodes of panic about his "inability" to apply himself to studies. Under such stress, paranoid ideation emerged which Bill learned to express only in therapy hours. Although characteristically quiet and unexpressive in group meetings, he was alert, sensitive and attentive. He derived much support from the close social relationships in the project and the increasing sense of "belonging" for the first time, to a peer group. His father's recognition of Bill's suffering was an additional source of support, and Bill's relationship with his father improved at this time as the father attempted to be of help to Bill. His interest and support gave Bill the courage to consider transfering out of his father's alma mater and back to the home town junior college he had originally wanted to attend. He decided, however, to continue at Kansas State in order to remain in the project another year and to continue with psychotherapy.

During his second year in the project Bill was able to benefit from positive comments from the group relating to his social image and tactfulness. Despite his internal agonizing about his inadequacies and shyness, Bill appeared poised, attractive and increasingly personable to the project group. This was made dramatically clear to him when he viewed a video tape recording of a project group meeting in which he could see himself as favorably as others did. This incident helped to consolidate gains he had made in self-confidence in the development of some objectivity in perception. In therapy Bill gradually learned to use help in exploring his problems and began to see himself as capable of developing his own interests and goals. He recognized in his choice of a business career his unconscious needs to placate his father and also to compete with him by attempting to better his father's grades in college. He had continued informally to pursue his interest in music which continued to be a source of personal and emotional gratification. At the end of his second year in college he switched to a major in music; and although he had to double up at times on his course load in order to pick up music courses he had missed, his grades improved dramatically as he realized the motivation for and involvement in his work which had previously been missing. With an increasing sense of self-esteem and self-confidence derived from good grades and consistent study habits, Bill was able to use therapy to reveal and discuss the sexual fantasies which had preoccupied him since early adolesence. As he began to achieve some perspective on this, the crippling guilt feelings diminished as well as his obsessive and self-referential ruminations about girls. He terminated therapy six months after leaving the project at a time when he felt confident in his abilities to be independent.

When seen in a follow-up interview a year later, Bill was continuing to feel self-confident, pleased about himself in general and was making consistently high grades. A senior, he was planning to pursue graduate work in music.

Although still "unable" to date girls, he no longer agonized about this and felt he would either begin to do so soon or return to therapy to try to work this through. He occasionally experienced some vague concerns about whether people were talking about him; but looked back incredulously to the time of his paranoid ideation, wondering how he could have thought that way. He felt that the project was a vital factor in enabling him to achieve a successful college adjustment.

Stigma

A commonly raised question is: "What stigma does membership in the project bring to clients?" At the outset we idealistically hoped that there would be none. However, we have since come to feel that the level of stigma is commensurate with that attached to using conventional services offered by the mental health section or counseling center.

For the university at large, or even in a large residence hall (600 residents) where the unit is located, many students do not know of its existence, although there is no attempt to keep it secret. It is a prudent measure to educate residence hall staff early so that they can be prepared to deal effectively with any rumors.

Within the project the presence of indigenous volunteers serves to blur who is client and who is volunteer. There are many similarities between clients and volunteers and there are no stigmata or obvious differentiating features to the casual observer.

Our plan of having key faculty and administrators visit the project as guests for meals has been the most effective way to educate the university community to our service. As an indication of acceptance of the program it is noteworthy that four clients have been offspring or relatives of KSU faculty or administration.

Role of the Staff

At the outset the concern and skepticism among our colleagues as well as the demands of research led us to observe and control the group considerably. As we have ended our research tasks and operated incident-free, we have had the courage to shift from a directing role to that of consultant to the students and the housing staff.

We have resisted recommendations for formal training of our volunteers so as not to create the kind of caste system found in a mental hospital. We have elected instead through group meetings to enhance the effectiveness of both clients and volunteers to cope with crises as well as to encourage a climate of mutual helpfulness as a top priority value of the group. Concerning crises, group members are helped to learn what situations they can deal with themselves, when they should call for consultation from us or housing staff, and what kinds of incidents demand immediate emergency intervention.

For the last three semesters we have operated in this consultative role and all parties--students, hall staff, and professional staff--feel comfortable in their respective roles. It may not be obvious but clients help one another in such a setting (unlike in many hospital programs). Indeed, the client-volunteer distinction is in the background rather than being figural.

A Typical Semester

The modal stay for both clients and volunteers is one or two semesters. Although each group seems to have somewhat of a unique character, there seem to be similarities across groups.

Characteristically at the outset volunteers especially press us for structure and both clients and volunteers are enthusiastic. Volunteers often try their repertoire of influence techniques to change client behavior and may be surprised at resistance or lack of rapid response. All project members seem to show some dissipation of initial enthusiasm and often the staff may become a target of anger and influence attempts. Surely there is something the "experts" can contribute to facilitate resolution of interpersonal conflicts and personal growth. The group measures their performance by an ideal of group harmony and may be disenchanted by normal clique formation. Some representative cliques are the religious, moral subgroup, the "hip" set, and the "junior psychologists" who wish to be therapists without examining their own motives and strivings.

Inevitably some crises occur--abortive attempts at boy-girl relationships which "fail", anxiety attacks, psychotic episodes, suicidal gestures. These crises serve to redefine the purpose of the group concretely and at least some members unite to cope with the problem at hand. Sometimes the crises are external, e.g., with housing restrictions. These, too, serve to unite the group and make it meaningful.

Considerable effort is made by the project members to preserve group ties even over lengthy vacations or during the summer when we do not operate. They often choose each other as roommates, maintain social relations, or correspond with one another.

Maximum benefit to clients and volunteers usually occurs in one or two semesters. Often those staying on longer get bored (perhaps as a function of a lack of challenge or capable mastery) or among clients an unwholesome dependency may develop. There is a need to test one's gains in interpersonal skills outside the group. Volunteers after two semesters may feel drained and resent the demands made on them. A burnout phenomenon like that described by Reiff and Reisman (1965) is seen.

Even with the decline in interest in active participation, most members wish some continuity of association though not in residence. Some have continued associations with current or former members and a few have continued to attend the group meetings after leaving the hall.

Students' positive cathexis of the project is, in our observation, stronger than the positive feelings of most students for residence halls.

Selected Findings

A complex network of relationships with other university departments must be established for a viable rehabilitation living unit program.

A small unit with a capacity for ten clients and ten volunteers seems adequate for a university of 13,000.

A coed rehabilitation living unit can operate successfully without remarkable incidents and facilitate the resolution of problems associated with the development of relationships with the opposite sex.

Having the unit under the administration of a mental health section of student health or a counseling center are equally feasible. It seems desirable that either of these services be given complete authority over the unit to minimize conflict with housing and food service.

The living unit can be an alternative both as a resource to prevent psychiatric hospitalization and to enable some prospective students to enter or re-enter more readily after hospitalization.

Students with borderline schizophrenia and schizoid personalities can be managed with the risk of serious hazards such as suicide. Even if severely disturbed, if a student is able to maintain scholastic activities, the rehabilitation living unit may make it possible for him to continue to function in the university.

The characteristic pattern of change in interpersonal relations has been for clients to shift from a barren social life to developing a few intimate, lasting ties with other clients and/or volunteers.

The stigma of living in such a unit is probably no greater than that for use of other psychological services.

Maximum benefit from the living unit takes place in two or three semesters.

Once established the staff investment can be largely confined to providing group services for all project members and consultation to housing staff and the project students.

Students can help one another when provided easy opportunities for consultation.

Research Results

The results to be presented in the following section include the initial baseline study originally conducted to determine the feasibility of the present project, the process and outcome data, and a brief follow-up study.

The Baseline Study

A baseline study was conducted examining 104 students who were nominated by student counseling center staff from the active cases of 1963-64 and 1964-65 as being sufficiently disabled so as to benefit by a special rehabilitation living unit. The drop-out rate was remarkably high: for each of the 1963-64 and 1964-65 samples approximately fifty percent of the students dropped out in a one-year period. Normally the drop rate at Kansas State University is forty-eight percent over four years.

Using the rule of thumb of (1) a predicted grade point average of C or better, (2) a percentile rank of 50 or greater on the Ohio Psychological

Examination, or (3) a WAIS verbal I.Q. of 115 or greater, forty-five of the eighty-three cases for whom we had intellectual measures should be able to earn average grades or higher. Ability levels of the students in the nominee group was essentially normal. The excessive drop rate may well have been a function of emotional disturbance among these students. Evidence gleaned from MMPI profiles and from clinical diagnoses is congruent with such an interpretation of the drop-out phenomenon.

MMPI measurements were available for thirty-two women and twenty-six men. The median MMPI scores were substantially elevated above those for normal college populations: 1.5 to 2.5 standard deviations (15-20T score points). They differed too, in configuration: the nominee group peaked on scales 4, 7, and 8 whereas the most common peak for normal students is scale 9.

Diagnostic judgments (categories) based on the American Psychiatric Association system (Diagnostic and Statistical Manual, 1968) were obtained for this sample of nominees. Borderline schizophrenics and schizoid personalities constituted a large proportion (34 percent) of our group. Anxiety reactions and passive-agressive reactions were also of high frequency in this group. Antisocial reactions were rare (1 percent). In summary, we seemed to be selecting mainly people who intermalize their conflicts and who have significant problems in establishing and maintaining interpersonal relations. The median MMPI profiles were congruent with these clinical diagnoses. It is for persons with just such problems that the rehabilitation living unit seemed most likely to be useful.

Thus this baseline study indicated that at Kansas State University there existed a population which might profit from a rehabilitation living unit.

Diagnostic and Demographic Differences Between Experimental Groups

In subsequent years (1966-67, 1967-68, and 1968-69) additional samples were identified. In addition to disturbed students, normal volunteers were included in this study. In order to assess the differences between groups of S's, comparisons were made between Clients (C), Volunteers (V), and Clinical Controls (CC) on demographic and scholastic variables. There were no significant differences between groups on college in which enrolled, in-state vs. out-of-state residence, town size under and over 10,000, age, or religion. Academic variables, college grade-point average up to beginning of project participation, and percentile rank in graduating class also produced no group differences. Thus these groups are comparable on demographic variables and on measures of intellectual ability and scholastic achievement.

The C and CC groups were not similar, however, in diagnostic categories or in clinical judgments of adjustment. A X^2 test indicated that significantly more C's received the more severe 1 or 2 rating, while more of the CC's were rated 3 or 4 ($X^2=9.92$, $df=1$, $P < .10$). Signficant differences were found between C and CC groups for diagnostic composition. A larger percentage of C's were diagnosed as schizoid or schizophrenic (Cs = 71%, CCs = 38%) while the CCs were more likely to be diagnosed as neurotic (Cs = 15%, CCs = 21%) or as experiencing adjustment reaction of adolescence (Cs = 6%, CCs = 33%).

Descriptive Factor Analysis

A factor analysis was performed on the matrix of Pearson Product-Moment intercorrelations of 86 social-psychological and personality variables for 80 clients and volunteers. A comprehensive list of the variables may be found in Appendix G. The factors were extracted by the method of principal components using unity in the diagonals rather than communality estimates and the varimax method was employed for the rotated solution. An arbitrary value of .30 was selected as a meaningful factor loading; however, the actual standard error of a factor was .208 (Harman, 1967).

Six factors were found to account for 51% of the variance. Factor 1, which accounts for 19% of the common variance appears to be a severity of emotional disturbance factor. High loadings which define the dimension are elevated MMPI scales, client versus volunteer status, and adjustment ratings. Such a factor has been reported by many other investigators using a variety of research methods. See Table 3 for those variables with rotated factor loadings greater than .30 on each of the six factors.

Factor II, which accounts for 9% of the common variance consists primarily of variables obtained from direct observation of behavior in the dining room such as Tablemates above Chance, and Gregariousness Index. The only non-observational variable to load highly on this factor is Weekend Time in Conversation.

Factor III accounts for 7% of the common variance and is composed of variables relating to sociometric choice. Highest loadings are on friendship and helping choices received and mutual friendship and helping choices although number of choices made also loads on this factor.

Factor IV appears to be an expressiveness-passivity factor. It accounts for 6% of the common variance. Highest factor loadings are frequency of response in weekly meetings and mean American College Test standard score. Activity Record variables TC and NC also load on this factor.

Factor V accounts for 5% of the common variance and appears to be an introversion-extraversion factor. The defining variables with high positive loadings are TSA and the MMPI Social Introversion scale. High negative loadings are found for TC, NC and sociometric choice.

Factor VI accounts for 5% of the common variance. It appears to be a sex differences factor with the largest loadings being on the MMPI Mf scale and on the male-female variable.

A natural break in the amount of variance accounted for occured after Factor VI and beyond that point the factors did not appear to be psychologically meaningful thus that level was chosen as a cut-off point.

It had been expected that a general isolation-involvement factor would appear in the above analysis but this did not occur. In another study (Sherman, 1970) a factor analysis using many of the same variables but involving only the C group yielded an action-oriented factor similar to the expected isolation-involvement factor. In the present analysis severity of disturbance appears to override any factor which might be attributed to social isolation.

The correlation matrix from which the factors were extracted generally was low positive correlation manifold with some inconsistencies. This may be

Table 3

Rotated Factor Loadings Greater than .30 for Six Factors on a Principal Components Factor Analysis

Variable	Loading
Factor 1--Severity	
MMPI Pt	.841
MMPI D	.831
MMPI Sc	.809
MMPI F	.752
Volunteer=1 Client=2	.716
MMPI Si	.702
MMPI Pa	.665
MMPI Pd	.576
MMPI Hs	.489
MMPI Hy	.470
Mean Weekend TSA	.357
Weekday TSA--Last	.340
Weekend TSA--Last	.322
IIS Lov	-.335
MMPI L	-.355
IIIMM Dom	-.378
MMPI Dn	-.552
MMPI K	-.611
IS Dom	-.657
MMPI Es	-.674
Adjustment Rating	-.711
Dom Staff Rating--Last	-.712
Dom Staff Rating--1st	-.714
IIS Dom	-.722
Mean Dom Staff Rating	-.740
IS Lov	-.786
Factor 2--Observed Contacts with Group	
Mean Tablemates Above Chance	.846
Mean Different Project Members Observed With	.761
Gregarious Index--1st	.709
Mean Gregarious Index	.681
Tablemates Above Chance--1st	.657
Different Project Members Observed With--1st	.642
Tablemates Above Chance--Last	.609
Different Project Members Observed With--Last	.541
Mean Weekend TC	.444
Weekend TC--1st	.391
Weekend TC--Last	.362
Gregarious Index--Last	.361
Help Choices Made--1st	-.306

Table 3 (cont.)

Variable	Loading
Factor 3--Sociometric Choice	
Mean Mutual Friendship Choices	.746
Help Choices Received--1st	.718
Mutual Friendship Choices--1st	.717
Friendship Choices Received--1st	.711
Mean Friendship Choices Received	.710
Lov Staff Rating--1st	.655
Mutual Help Choices--1st	.650
Mean Help Choices Received	.644
Mean Dom Staff Rating	.615
Mean Mutual Help Choices	.569
Mean Friendship Choices Made	.506
Mutual Friendship Choices--Last	.479
Lov Staff Rating--Last	.476
Friendship Choices Made--First	.455
Adjustment Rating	.432
Friendship Choices Received--Last	.422
Dom Staff Rating--1st	.391
Friendship Choices Made--Last	.382
Help Choices Received--Last	.380
VId. Lov	.374
Help Choices Made--1st	.359
Weekday NC--1st	.356
Mean Dom Staff Rating	.351
IIS Lov	.344
Mean Weekday NC	.331
IIIMM Lov	.318
Volunteer--Client	-.411
Factor 4--Expressiveness-Passivity	
Mean of Mean Frequency of Response in Meetings	.707
Mean Frequency of Response in Meetings--1st	.647
Mean Frequency of Response in Meetings--Last	.621
Mean ACT Standard Score	.511
MMPI Pd	.433
Weekend NC--1st	.346
Weekday TC--1st	.334
Weekend TC--1st	.324
Mean Weekday NC	.324
MMPI Dn	.318
Dom Staff Rating--1st	.315
Mean Dom Staff Rating	.309
MMPI Ma	.303
IIIMM Dom	-.330
IIS Lov	-.340
Lov Staff Rating--1st	-.346
IIF Lov	-.347
Greagarious Index--Last	-.377
Mean Lov Staff Rating	-.474
Lov Staff Rating--Last	-.525

Table 3 (cont.)

Variable	Loading
Factor 5--Introversion-Extraversion	
Mean Weekend TSA	.628
Weekend TSA--Last	.586
Weekday TSA--Last	.520
Mean Weekday TSA	.482
Weekend TSA--1st	.406
MMPI Si	.378
Different Project Members Observed With--1st	.350
Tablemates Above Chance--Last	-.301
Mean Mutual Help Choices	-.307
Mean Mutual Friend Choices	-.315
Mean Friendship Choices Made	-.369
Mean Gregarious Index	-.387
Mean Weekday NC	-.391
Mean Help Choices Made	-.398
Friendship Choices Made--Last	-.428
Mean Weekend NC	-.439
Help Choices Received--Last	-.441
Weekday NC--Last	-.441
Project Members Observed With--Last	-.445
Weekday TC--1st	-.493
Friendship Choices Received--Last	-.504
Mutual Friendship Choices--Last	-.511
Mutual Help Choices--Last	-.514
Weekend NC--Last	-.524
Mean Weekend TC	-.569
Gregarious Index--Last	-.580
Help Choices Made--Last	-.599
Weekend TC--Last	-.661
Weekday TC--Last	-.676
Mean Weekday TC	-.747

Table 3 (cont.)

Variable	Loading
Factor 6--Sex Difference	
MMPI Mf	.588
Weekday TSA--1st	.542
Mean Weekday TSA	.450
Friendship Choices Received--Last	.438
IIIMM Lov	.376
Help Choices Received--Last	.349
Weekend TSA--1st	.310
Mutual Help Choices--1st	-.351
IS Dom	-.381
Weekday NC--1st	-.387
High School Rank	-.389
Mean Help Choices Made	-.416
IIIMM Dom	-.422
Help Choices Made--1st	-.523
Male-Female	-.685

interpreted as indicating that while our social-psychological variables are all measuring some aspect of social behavior, they are not interchangable.

Process Results

In an attempt to study behavior within the living unit group many traditional sociometric methods were used and some other techniques were developed. During the first year of project operation instruments were revised and a few were added. Several proved of little use in the present investigation. An attempt to evaluate the methods used will be made in the discussion section of this report.

The methods employed can be divided into three categories: direct observation in which a neutral observer records some measure of Ss behavior, indirect observation in which S is studied by means of self report, and involved observation which is obtained from participant observers or from Ss own subjective opinions and ideas about his behavior.

Direct observation. Much of the data acquired by direct observation in the living unit has not proved useful. Lounge observations were found to be of little use because of the intrusiveness of the observer in this particular part of the neutral observation. Students would report moving to other areas or behaving differently when they spotted the observer. In addition, the lounge data could produce only a gross measure of who sits with whom and often even this was inaccurate in small lounges where students appeared to be together when in fact they were not interacting.

Similar constraints exist with reference to dining room observations, however Ss were less likely to change their behavior in this setting and the observer was less obtrusive in the dining room.

The variables derived from dining-room observations are above-chance tablemates, number of project members observed with and a gregariousness index. These variables are so closely related to one another that they constitute most of Factor II in the factor analysis. Above-chance tablemates appears to be the one diningroom measure which relates to non-observational variables, primarily the Activity Record variables NC and TC. Both number of project members observed with and the gregariousness index relate primarily to each other and to above chance tablemates, but do not relate consistently to any other social and psychological measures.

Observations in the weekly meetings were made using a modified version of the Bales system of categorization of verbal materials. Also recorded was mean number of responses made by each S in these meetings. Repeated measures analyses of variance were performed for the percent frequency of response in each of the Bales categories. These analyses produced no significant differences on the four categories for sex, group, or over time. Inspection of the data reveals that a majority of the statements made fall into categories B (gives suggestion, evaluation, orientation) and C (asks for orientation, evaluation, suggestion) of the Bales system; and very few are rated category A (shows solidarity, shows tension release, agrees) or category D (disagrees, shows tension, shows antagonism) which are more extreme categories. The categories at either extreme represent emotional reactions which occur infrequently in the large meeting which tends to have a business-meeting atmosphere.

A similar analysis of variance was conducted for mean frequency of verbalization in meetings. This analysis yields a significant main effect for sex (F, 1/66=3.314, $P < .10$) with males speaking more often than females. The effect for time is significant (F, 1/66=4.462, $P < .05$) with all groups speaking more at the end of the semester.

Indirect observation. The two methods of indirect observation which have been used in the present study have been very different in terms of the investigators' satisfaction with them. The AR has proved the most useful of the social-psychological measures while the sociometric technique has yielded little.

The primary difficulty with the standard sociometric technique has been that sociometric choices have tended to stabilize very quickly and are thus not sensitive to change over time. In addition the negative choices "do not like" and "would not turn to for help" could not be used because there were almost no entries in these blanks. Project members appear reluctant to indicate dislike for other members of the group.

Sociometric variables Helping and Friendship Choices Made and received do not appear to relate substantially to other social-psychological variables, but Mutual Helping and Friendship choices are related to several. Mutual Friendship Choices correlates highly with adjustment ratings, staff ratings of Leary's Dom and negatively with MMPI scales Si and Sc. Mutual Helping Choices correlates with adjustment ratings, both helping choices made and received, and correlates negatively with TSA and with MMPI Pt. Thus chosing and being chosen do not appear to be as meaningful as do reciprocal choices in relating to measures which can be interpreted as indicating adjustment.

The Activity Record has proved a more sensitive instrument which has provided a good deal of information both on project members and on the CC group.

Table 4 presents a repeated measures analysis of variance for TSA for Ss first semester in the living unit or first semester of participation as a control. The test reveals a significant difference between groups. On inspection of the means Cs appear to spend the most time alone, followed by Ns (normals), CCs, and Vs (M=33.32, 27.07, 26.32, and 22.54 respectively). When these means are compared by t-tests Cs spend significantly more time alone than Ns (t=3.36, $P < .05$) but none of the other groups are different from Ns.

Time in semester is not significant, however, the weekday-weekend effect is, with the greater TSA occurring on weekdays. The sex difference is highly significant, women spending less time alone than men.

The analysis for TC is presented in Table 5. Sex produces a significant difference in this variable with women talking more than men. The group difference is also significant. Ns spend the greatest percent of time in conversation, followed by Vs, CCs, and Cs (S=29.47, 27.36, 27.07, and 22.20 respectively). The C group is significantly different from all other groups (t=2.08, $P < .05$ between Cs and CCs) but tests indicate no differences among the remaining groups. Time in semester yields no differences but Ss spend more time in conversation on weekends.

A similar analysis for number of contacts (Table 6) indicates that men have fewer contacts than women. The analysis yields a significant difference for groups and a t-test indicates that Vs have a significantly higher number of

Table 4

Four-way Repeated Measures Analysis of Variance
for Percent of Time Spent Alone by Sex with 4 Groups
Two Days of the Week at Beginning and End of the Semester

Source	df	MS	F
Between Subjects			
A (sex)	1	5282.8000	9.039**
B (group)	3	2597.5010	4.616**
AB	3	1569.2420	2.635+
Within Subjects			
C (time in sem.)	1	436.1997	2.371
AC	1	19.3420	0.127
BC	3	199.5129	1.314
ABC	3	192.8883	1.314
D (Day of week)	1	1365.4860	3.903*
AD	1	12.1321	0.035
BD	3	487.3855	1.392
ABD	3	201.6465	0.576

\+ = $p < .10$
* = $p < .05$
** = $p < .01$

Table 5

Four-way Repeated Measures Analysis of Variance
For Percent Time Spent in Conversation by Sex with 4 groups,
Two Days of the Week at Beginning and End of Semester

Source	df	MS	F
Between Subjects			
A (sex)	1	2248.1760	7.501**
B (group)	3	1353.9840	4.513*
AB	3	320.4021	1.069
Within Subjects			
C (time in sem.)	1	179.8319	1.784
AC	1	82.7060	0.821
BC	3	84.0463	0.834
ABC	3	104.9135	0.834
D (day of week)	1	4965.7570	34.333**
AD	1	698.1138	4.827
BD	3	234.9461	1.624
ABD	3	38.0369	0.263

+ = p $\leq$.10
* = p $<$.05
** = p $<$.01

Table 6

Four-Way Repeated Measures Analysis of Variance for Number of Contacts by Sex with 4 groups, and Two Days of the Week at Beginning and End of Semester

Source	df	MS	F
Between Subjects			
A (sex)	1	5048.8510	4.657*
B (group)	3	16595.7700	7.643**
AB	3	1666.0280	1.566
Within Subjects			
C (time in sem.)	1	709.6633	1.016
AC	1	132.8682	0.068
BC	3	388.8923	0.903
ABC	3	472.5808	0.903
D (day of week)	1	37.6081	11.832**
AD	1	183.3567	1.409
BD	3	663.4453	7.087**
ABD	3	307.3394	0.294

+ = $p < .10$
* = $p < .05$
** = $p < .01$

contacts than all other groups (t=3.75, P<.01). The remaining groups do not differ from one another. There is no significant difference for time in semester but the weekday weekend difference is significant.

The sex differences in these analyses is quite consistent. Females spend less time alone, have a greater number of contacts, and spend more time in conversation than males. This result is in agreement with MMPI results in possibly indicating that the females in the sample are less severe than the males.

The group differences are not as clear. While the Cs spend more time alone and less in conversation, they do not differ from CCs or Ns in number of contacts. This may in part be due to their residing in the living unit where project members often get together in large groups and contact may occur even though it is not sought. For instance a project member may choose to sit alone in the dining room but it is likely that he will be joined by any other unit member who enters and sees him. Number of contacts is also a gross measure relative to TSA and TC and is subject to greater variability. A few five-minute encounters with several persons can inflate the number of contacts measure without appreciably affecting either TSA or TC.

The weekday-weekend difference in the three variables probably reflects increased freedom of action and greater leisure time which is allowed on weekends. Hours spend in weekday classes preclude the use of this time for conversation. It is also likely that solitary study is more common on weekdays than on weekends when books are traditionally put away in favor of more exciting pursuits.

These analyses appear to indicate that social involvement has not increased over the semester. This is a difficult finding to interpret, however, because the end of the semester data is collected just previous to final examinations when students may be spending a greater amount of time with their studies.

Involved observation. The methods of data collection which are classed as involved observation include participant observations and the exit interviews conducted at the end of each unit member's participation.

Although participant observation has provided rich narrative data, this material is not easily quantified. However the case summary presented earlier incorporates participant observer data. Weekly ratings of unit members by the participant observers were analyzed using a repeated measures analysis of variance. On participant observer (PO) ratings for category A (In versus Out of Contact) there is no effect for group or sex, but time is significant at the .01 level with all groups being rated less in contact at the end of the semester. Category B(calm vs. excited)yields a difference at the .10 level for groups with clients being rated higher and for sex(P< .05) with females receiving higher ratings. There is no difference over time. On category C(Accepted vs. Rejected by the group)there are no significant effects for group or sex, but the time difference is significant at .05 with all groups being rated as more rejected at post test. On category D, socially outgoing vs. socially withdrawn, Cs are rated as more withdrawn (P< .05) and all groups are rated as more withdrawn at post test.

The terminal interviews, another method of involved observation, have been informative for research purposes as well as providing useful information for administration of the program.

Each project member is given a semi-structured interview the week preceeding the final week of each spring semester or when leaving the living unit. The interview is oriented toward assessing feelings and thoughts about the project. A copy of this interview schedule may be found in Appendix H.

Positive, affective responses have outweighed negative ones for each period of observation. For the most part, Cs seem to be more enthusiastic than are Vs. Most of the positive responses given were by both Cs and Vs, though of course, some are more frequently expressed by one group than the other. The main benefits members feel they have derived from being in the project were reported as follows:

Increased ability to relate to others.
Better understanding of self and others; self-acceptance and acceptance by others.
Learning how to express self, and feeling freer to do so.
Better interpersonal relationships; friendships seemed more real.
Learning of social skills.
Learned to be more patient and tolerant of others.
Gained maturity.
More at ease around opposite sex.
Beginning to develop own values and make own decisions.
Found comfort in learning that other people have problems too.
Comfort in knowing there was always someone around to talk to who would understand and not belittle you.
Sense of identity--many had a feeling of belonging for the first time.

For the most part, members accept the amount and type of research activity quite well and are often proud of their participation. They reportedly were somewhat bothered at first by the observations, but soon became used to them though they said they often changed activities when they realized they were being observed or were scheduled to report a day's activities, or at times just to heckle the observer. Some remarked that they felt more spied upon by some observers than by others.

The majority said they would return to the project if they had it to do over again, however, more Cs than Vs said they would return. Others would not return because they disliked living in the dormitory, the project took too much of their time, or it had hurt their grades. Many said that if they did return to the project, they would attempt to be more open and involved and would study more. Most, however, felt they would not be likely to do much differently than they had in the past.

In the groups' rank orderings of the most to least helpful of the five rehabilitation approaches, there is a clear indication that informal conversations with project members consistently ranks in first or second place for both Vs and Cs, and that Cs also for some semesters ranked their regular counseling appointments in first place (Table 7). Coefficients of concordance (W) show the agreement of rankings among Cs, Vs, and their male and female subgroups to be statistically significant in each case beyond the .05 level of confidence (See Table 8).

The exit interviews have been a productive source of information for the staff. Further, project members seem to derive considerable release and satisfaction from the opportunity to freely express their feelings to a staff member and to feel that it may influence future conduct of the program.

Table 7

Rank Order of Rehabilitation Approaches
from Most Helpful (1) to Least Helpful (5)

Approach	Clients				Volunteers			
	Spring '66 N=8	Spring '67 N=19	Spring '68 N=13	Spring '69 N=16	Spring '66 N=10	Spring '67 N=13	Spring '68 N=12	Spring '69 N=7
Informal conversations with project members	1	2	2	1	1	1	1	1
Large group Monday meetings	2.5	3	4	4	3	2	3	3
Small group Monday meetings	2.5	4	3	2	2	3	2	2
Periodic interviews with staff	5	5	5	5	4	4	4	4
Regular counseling appointments	4	1	1	3				

*Counseling appointments not applicable to volunteers

Table 8

Coefficients of Concordance for Five
Rehabilitation Approaches * Ranked from Most to Least Helpful

Year	Clients						Volunteers					
	Males		Females		All Clients		Males		Females		All Volunteers	
	W	P	W	P	W	P	W	P	W	P	W	P
Spring '66	.25	N.S.	.52	.05	.32	.05	.36	N.S.	.82	.01	.56	.01
1966-67	.69	.01	.55	.01	.61	.01	.67	.01	.76	.01	.69	.01
1967-68	.63	.01	.91	.01	.71	.01	.74	.01	.90	.01	.83	.01

*Only four of the five approaches are applicable to volunteers

Outcome Research

Outcome results include personality measures, measures of attitude, academic and medical records and follow-up interviews conducted after one year.

Attitude measures. Measures of attitudes toward emotional disturbance and the emotionally disturbed were included in order to determine whether differences between groups would occur, whether attitudes would change as a result of being in the project, and whether attitudes might be related to social-psychological variables such as friendship and helping sociometric choices. The attitude measures (the OMI, the Nunnally, and the Semantic Differential) were analyzed for differences between groups and over time. Fewer analyses proved significant at the .05 level than would be expected by chance. Thus there were no differences between groups or over time in attitudes toward emotional disturbance and the emotionally disturbed.

Scores on the attitude tests were not related to sociometric choices thus indicating that the persons to whom others turn for help or whom they choose as friends are not different in measured attitudes toward mental illness.

Personality measures. Data from the Leary battery consists of scores for dominance (Dom) and Love (Lov) for the interpersonal system which studies behavior at four levels. The levels are operationally defined; personality data are assigned to a level according to the way it is produced by the subject or rater of the subject. Level I considers how a person presents himself to or is described by others. Level II is comprised of his descriptions of himself and his interpersonal relationships. Level III considers fantasy or "projective" material, and Level V, his conscious ego ideal.

Scores for Dom are computed along a continuum from "self effacing, masochistic" to "managerial, autocratic". Scores for Lov are on the "aggressive, sadistic" to "cooperative, overconventional" continuum.

Although high or low scores are generally considered undesirable extremes, in the present study high Dom scores on all levels correlate negatively with MMPI clinical scales and positively with Es and K scales and with rating of adjustment. Dom is also significantly related to mutual helping and friendship choices and to Activity Record variable NC. A negative correlation exists between Dom and TSA. Dom may, therefore, largely reflect an adjustment dimension.

Lov scores are also negatively related to clinical scales on the MMPI but the correlations are not as high.

Results of repeated measures of analyses of variance of scores obtained from the Leary Battery are presented in Table 9. The Level III data from the Thematic Apperception Test are not included because of difficulties encountered in using the self-administered form of the test. In spite of standardized instructions Ss often completed the test incorrectly or made such minimal responses that scoring was nearly impossible.

Level I S is obtained from the MMPI and reflects public interpersonal behavior. The analysis of I S Dom indicates that females score higher on this scale. There is a significant group difference with Vs obtaining higher scores than Cs and CCs. The change over time is significant with Cs and CCs

scoring higher at post test and Vs remaining the same. Since this scale is correlated with adjustment ratings, this may indicate that the C and CC groups are moving in the direction of better adjustment in the way they present themselves.

The IS Lov analysis produces a group difference with Vs scoring highest, then CCs and Cs (the means for the three groups are 58.1, 47.7, and 42.5 respectively.) There are no sex or time differences.

Level II scores measure Ss private self-description from the Interpersonal Check List (ICL). ICL scores were obtained for only the C and V groups. A group difference occurred on II S Dom with Vs scoring higher than Cs. The time difference is also significant and the group by time interaction indicates that Cs score higher at post test while Vs remain about the same.

IIS Lov Scores are higher for Vs than for Cs and the significant time difference indicates that both groups score lower at post test on this variable.

Level III MM, taken from the MMPI, provides scores for what Leary calls "underlying character structure". The analysis for III MM Dom reveals significant sex and group differences. Females score higher than males and Vs score highest of the groups followed by Cs and CCs (Means are 48.2, 39.0, and 37.7). Males score higher than females on III MM Lov and the CC group scores highest, then Vs, and Cs.

The V ID level indicates S's conscious ideal self as he indicates it on the ICL. The analysis for V ID Dom reveals no differences for group, sex or time, but a group by time interaction is significant with all groups scoring somewhat lower at post test but with a decrease of greater magnitude for the C group.

The analysis for V ID Lov reveals a significant effect for group with clients scoring higher, and a time difference with both groups scoring lower at post test.

The staff ratings of Ss on the ICL were analyzed for Dom only. This analysis indicates a significant effect for group, Vs receiving higher scores than Cs, and a nearly significant difference for time which shows a small decrease at post test.

The results of these analyses are inconclusive. The group difference on scores for Dom appears consistent with Vs scoring higher on four of the five types of measures but the group difference for the four levels of Lov scores is not at all consistent. The sex difference occurs in some of the Dom and Lov scores but it again is not consistent. There exists some possibility that a sex difference is operating in these analyses in terms of severity. Analyses of Activity Record variables indicate that women spend less time alone and more time in conversation and have a larger number of contacts with others, and analyses of MMPI clinical scales produce sex differences which may indicate that women clients and controls are less severe than men. However, x^2 tests of adjustment rating by sex and diagnosis by sex are not significant.

Table 9

Results of 3-way Analyses of Variance for Leary Dom and Lov Scores by Sex with 3* Groups, Pre and Post Measures

Level	Instrument	Significance			
		Sex	Group	Time	GxT
IS	MMPI				
	DOM	.05	.01	.01	.05
	LOV	.001			
IIS	ICL				
	DOM		.001	.05	.01
	LOV		.05	.01	
III MM	MMPI				
	DOM	.001	.001		
	LOV	.001	.05		
VI D	ICL				
	DOM				.05
	LOV		.05	.01	
Staff ratings	ICL				
	DOM		.001	.10	

*In cases where pre and post measures were not available for the CC group, results are based on the C and V groups.

Table 10 presents the results of repeated measures analyses of variance on pre-post measures of 15 scales of the MMPI for Cs, CCs, and Vs. Sex differences are found on the Hs, D, Hy, Mf, and Pt scales with men having higher scores on these variables than women. Group differences occur on 12 of the 15 scales. In all but three of the analyses Cs and CCs are higher than Vs but do not appear different from one another. On the K, Es and Dn scales Vs are higher than both Cs, and CCs and the means for these two groups do not differ.

Change over time yields a significant difference on five of the 15 scales. All groups have lower scores at post test on D, and Hy. Cs and CCs score lower at post test on Pt while Vs remain about the same. Post test scores on K are higher for the three groups and Es scores are also higher except for female Vs who remain the same. Post test scores on F are lower for all groups.

Group by time interactions occur on scales D and Ma. In the case of D, all groups score lower or the same at post test but the CC group difference is largest (9.93 for CCs, 2.45 for Cs, 1.21 for Vs).

The Ma score produces an interaction effect but no main effects. In this analysis the mean for V group does not change. In magnitude the C and CC change is almost identical except that the C mean decreases by 7.68 points and the CC mean increases at post test by 7.60 points.

Table 10

Significance of Three Way Repeated Measures Analyses of Variance for MMPI T-Scores by Sex with 3 Groups, Pre and Post Measures

Scale	Significance (P)			
	Sex	Group	Time	G x T*
L				
F		$< .01$	$< .05$	
K		$< .01$	$< .05$	
Hs	$p < .05$	$< .05$		
D	$p < .05$	$< .01$	$< .01$	$< .05$
Hy	$p < .10$	$< .05$	$< .05$	
Pd		$< .01$		
Mf	$p < .01$			
Pa		$< .01$		
Pt	$p < .05$	$< .001$	$< .10$	
Sc		$< .001$		
Ma				$< .01$
Si		$< .01$		
Es		$< .05$	$< .05$	
Dn (Denial)		$< .01$		

*There were no significant SxG, SxT, or SxGxT interactions.

Academic records. An awareness of the high dropout rate of emotionally disturbed students who were seen in counseling at the university was one of the reasons for the development of this project. The baseline data established that emotionally disturbed students who drop out of college are not lacking in the potential for academic achievement. Evidently they often underachieve or may eventually drop out of college because they are unable to study effectively and cope with their emotional problems at the same time. Administrative files abound with various academic measures with which to assess the effects of the treatment program on scholastic performance. Those utilized in the present study include grade point averages (GPAs), academic persistence, and graduation.

The C, CC, and V groups were comparable on High School Rank, ACT scores, and GPAs prior to entering the program. Thus there is ample evidence that these groups are similar in intelligence and achievement.

Repeated measures analyses of variance were performed to assess the difference in GPAs over time. Because of the small number of Ss for whom grades were available at pre, during, and post project participation, separate analyses were conducted for pre-during GPA and during-post GPA.

The analysis for GPAs pre and during participation yields no significant effects for sex, group, or time. Thus the three groups do not differ from one another and there is no change in their grades when they become involved in the living-unit project.

The during-post analysis indicates no effect for group or sex, but the change over time approaches significance (F, $1,62=3.39$, $P<.10$) with all groups earning somewhat higher GPAs after project participation. A nearly significant sex by time interaction (F, $1,62=3.40$, $P<.10$) indicates that females' grades improve slightly more than do those of males.

One of the most important variables with regard to the success of the living unit is academic persistence. Table 11 presents a tabulation of academic persistence for the three experimental groups and for students who were nominated for the living unit but did not elect to enter and did not participate as controls. A chi square test indicates that there is no significant difference between these groups. However, when the table is divided according to disturbance, the chi square test is significant for volunteers vs. all other groups. Thus the C, CC, and Nominee groups do not appear to differ in rate of attrition of persistence in school.

When academic persistence is presented by severity the differences are more clearly seen. Table 12 presents the percent of Ss who drop, persist or graduate by ratings of adjustment. A chi square test of these percentages indicates a significant effect and correlations between adjustment rating and proportion dropped ($r = -.937$) and proportion graduating ($r = .88$) are highly significant.

Inspection of academic dismissal and probation records shows that approximately 50% of Cs, CCs, and Vs have been on either academic probation or academic dismissal status at least once during their college careers.

Medical and Psychiatric Records. The Student Health Center's medical records on all Ss in the C, CC, and V groups have been reviewed to determine the extent to which these Ss avail themselves of in and out-patient services

Table 11

A Tabulation of Academic Persistence

Group	Dropped		Persisting		Graduated		Total N
	No.	Percent	No.	Percent	No.	Percent	
Clients	23	44	23	25	16	31	52
Controls	22	39	16	28	19	33	57
Volunteers	8	24	9	27	16	49	33
Nominees	43	51	19	23	22	26	84
							226

Table 12

Percent of Drop, Persist, or Graduate

By Ratings of Adjustment

Adjustment Ratings	Percent Drop	Percent Persist	Percent Graduate
0 and 1	69%	17%	14%
2	45%	25%	30%
3	40%	28%	32%
4	22%	22%	56%
5	24%	27%	49%

and the extent and nature of their complaints. These records have been inspected for changes across time as well as for comparisons between groups. The extent of use of services is measured by three variables: number of hospitalizations, number of outpatient visits, and number of days hospitalized. Four variables denoting the extent and nature of complaints are: the presence or absence of functional complaints, the presence or absence of multiple complaints, the presence or absence of frequent use of sedatives or tranquilizers, and an ordinal rating on the extent of complaints. Ratings on the latter variable are from zero, no complaints, through four, complaints with a functional basis only. The four variables on the extent and nature of complaints were judged by a psychiatrist.

Comparisons were made between groups on each measure for pre, during, and post project participation. Except for the multiple complaints variable for which there are no significant differences, differences appear between groups at the pre and during measures (Vs lowest) but only use of sedatives or tranquilizers yields a difference on the post measure (Vs lowest).

All tests which are significant indicate that Vs tend to make the least use of in and outpatient services and their complaints are less severe.

Within group comparisons over time were made for presence or absence of functional complaints, of multiple complaints, and of use of sedatives or tranquilizers. These chi square tests yield few consistent differences however it appears that use of services is higher for Cs and Vs while they are in the project than either pre or post.

The absence of differences between groups at post-test may indicate that Cs and CCs are moving toward a more healthy orientation in which use of medical services is diminished.

A principal components factor analysis using unity in the diagonals and a varimax rotation was done on the correlation matrix for all the medical variables enumerated above plus weight of hospital chart. The purpose of this analysis was to ascertain whether a general health factor might be more easily obtained by a smaller number of variables than by collecting data on all variables. The first factor accounted for only 40% of the variance and three factors were extracted accounting for 63% of the variance. It did not seem, therefore, that the factor structure was such as to warrant using a single variable or a simple combination of selected variables as a measure of a general health factor.

Follow-up Studies

A brief follow-up study was conducted in an attempt to ascertain the general adjustment level of both living unit clients (Cs) and clinical controls (CCs) approximately one year after their participation in the study.

Initially, form letters were sent to 32 Cs and 44 CCs who had not been involved in the study for at least one year. They were asked to return an enclosed postcard giving their correct address and phone number. If it was not possible to locate them, letters were sent in care of their parents. Positive responses were received from 22 Cs and 20 CCs. Twenty persons were interviewed from each group. A copy of the interview schedule for clients appears in Appendix I. The CC interview is nearly identical with only slight changes in wording and omission of questions pertinent to membership in the project.

Interviews were conducted in person when possible and by phone in those cases where S did not live near the university.

Cooperation was excellent among those Ss who were interviewed, even among some whom as Cs had expressed hostilities toward project staff or had left the living unit with hostile attitudes. Many CCs who had been reluctant to participate during data collection periods were now enthusiastic about being interviewed even though they were not paid as they had been earlier.

Some discussion of the similarities and differences in these two groups is important since these are influential in any interpretation to be placed on results of the follow-up data.

The groups are matched on demographic variables, there being no differences in age, college in which enrolled, in-state vs. out-of-state residence, home town size, religion, college grade average, or percentile rank in high school graduating class. But they are not matched groups with regard to ratings of severity of disturbance made by staff members at nomination. Cs were rated more severe than CCs on a five-point scale. And the two groups differ by diagnostic category with a greater number of CCs being diagnosed as neurotic or as experiencing adjustment reactions, and more Cs falling into the schizoid and borderline schizophrenic categories. Additionally, CCs appear less likely to utilize all therapeutic resources available to them as evidenced by the fact that these students were offered the living unit program but did not elect to use it. Any interpretation of the findings must be made with the above limitations in mind.

In general there are no significant differences between groups in biographical, demographic data or in respondents' statements about their present adjustment. The responses are notable for their similarities. All respondents indicated feeling improved. It is possible that a selection factor occurred and that those Ss who did not feel they were adjusting did not reply to the initial inquiry.

Results will be presented for the group as a whole with mention of group differences where they occur.

Biographical information. The mean age for respondents is 22.3 years. More CCs are married than Cs (C=3 CC=10, x^2=5.58, P <.05). Twenty-seven of the respondents are living with spouse or roommate. More Cs are living alone than CCs (6 vs. 1) They have been living there about 10 months (C X=8.04 months, CC X=12.70 months). Thirty-two of the 40 respondents felt satisfied with their living arrangement.

Table 13 presents frequencies of respondents in school.

Table 13

Frequencies of Respondents in School

	Still Undergraduate	Graduated	Some Graduate Work	Dropout
C	9	3	4	4*
CC	15	1	4	0

*One attending trade school

Of those who have attended school since participating, 12 rated performance excellent, 14 good, 6 fair, and one poor.

None of the respondents have been in the military service although project staff knew of three former clients now in the military, including one female client.

Occupational information. It is not possible to make between-group comparisons on the basis of employment because of the larger number of CCs still in school. Of the 40 respondents, 28 are in undergraduate or graduate work. Of the 28 respondents still in school 13 are employed at least part time. Of the 12 who are not now in school 9 are employed full time, 1 is a housewife, and 1 is attending trade school. The salary range for full-time employees is $285 to $700 per month. Information regarding job satisfaction, supervision of other employees, promotions, and requirements cannot be applied with the small number of respondents who are working full time and the nature of the part-time employment available to college students.

Social adjustment. The replies to the questions regarding social adjustment indicate that almost all respondents feel they have made some improvement and none appear to have become less satisfied with their social lives. Controls seem generally to feel they are satisfied and 11 CCs vs. 4 Cs indicated they were completely satisfied. CCs also stated that they had a much larger number of close friends (M=4.7 for Cs, M=10.5 for CCs). Eleven Cs had been in psychotherapy since leaving the project, 5 CCs had had psychotherapy since participating in the testing (all Cs were in psychotherapy at time of testing). It is possible that these figures indicate a tendency to be defensive or not to admit difficulties on the part of the CCs since they were reluctant to accept project living initially.

Although many Cs indicated they were not completely satisfied with their social adjustment, many attributed this to situational problems. Most respondents felt that their dating relationships were better than when they were in the project or control conditions. The median number of groups with which respondents were affiliated was one with the range being from zero to six. No one reported encountering problems in the community.

Health. Respondents described their health generally as good. There had been no hospitalizations for psychiatric reasons and very few were taking psychotropic drugs. Of the Cs, 18 felt the project had been helpful to them, 14 CCs felt they had been helped by their psychotherapy. Very few Cs or CCs felt they had developed new problems and most felt they had no problems with which they needed help at present.

Overview of followup study. Cooperation in the followup interviews was excellent. Both groups of Ss were interested in learning about the continuation of the project and all responded positively to our offer to report the findings to them.

In general it appears that Cs and CCs are adjusting well. There may be a selection factor involved in that those Ss contacted who were not happy with their personal adjustment did not respond to our inquiries. For example, it is known that two respondents, a C and a CC, had psychiatric hospitalizations. This follow-up study was of necessity conducted after a relatively short period of time since treatment (one year) when measures such as job and community adjustment are not applicable. A more comprehensive followup of a larger

number of subjects should be undertaken after a longer period of time.

The greater severity of the C group and the difference in diagnoses may be reflected in a somewhat higher level of functioning of the CC group at followup. In an absolute sense, when one considers that both groups are drawn from the most extreme 5% of the students seeking professional help from the mental health section or the counseling center, adjustment at followup is very good. For example for the C respondents only four of twenty Ss were dropouts and one of these was in training. A dropout rate of 20% is very low when compared with the baseline study findings of 50% dropout in the year in which an S was nominated. Evidently both C and CC respondents were superior to nominees-in-general in this regard.

Adjustment Ratings

As an outgrowth of a consultation visit from Dr. LeRoy A. Stone a methodological contribution was made to the clinical judgment of the adjustment versus severity-of-disturbance dimension. Dr. Stone and collaborators and students for a number of years have been applying psychophysical methods to problems involving clinical judgment.

It appeared that the method of direct magnitude estimation might have application to the scaling of adjustment-severity.

Three judges, all of whom were familiar with project members from direct observations, participant observer reports and staff conferences participated. They independently rated 19 Ss on a five-point scale. For the direct magnitude task a project member who from consensus was adjudged to be average in adjustment was chosen for the standard. His value was arbitrarily set at 100. All other clients and volunteers in the unit at that time were compared with him; e. g., someone judged twice as well would be assigned a value of 200, and someone half as well adjusted would receive a 50. Interjudge agreement for both methods was high and comparable. For the rating scale approach judgments were largely confined to the middle three of five points. In contrast the magnitude estimation scale yielded much finer discrimination: ties were rare and a wide range of values was obtained for each judge. The range of the geometric means of judges' assigned values had a ratio of 9.4/1. Rating scale range was from 1.33 to 5.0, a ratio of 3.8/1.

The magnitude estimation method yields a ratio scale. With a ratio scale, maximum information is communicated by the numerical scale values. With such a level of measurement, one would be justified in saying that a particular stimulus is judgmentally regarded as being X number of times more potent than another stimulus. With the present data, it appears that the three judges (on an average) believed the volunteer group (N=9) to be about 2.5-3.0 times "better adjusted" than was the client group (N=10). Statements such as this cannot be made based on numerical information which is scaled at lower measurement levels such as the rating scale employed in this investigation.

It would seem that utilization of direct-estimation methods to scale professional judgment of the extent of mental health (adjustment) in patients-clients appears to result in improved measurement. Such measurement procedures, with this kind of judgmental-evaluation problem, seem to, at least in this studied instance, produce subjective magnitude impressions over a wide range.

DISCUSSION

The Rehabilitation Living Unit as a Service

Mental Health professionals and counselors--especially vocational rehabilitation counselors--have come to view the living unit as a significant resource for students with severe emotional disturbance. With appropriate exclusion of those students who definitely need intensive psychiatric treatment such as offered in a day hospital or inpatient psychiatric care, the project offers a low-risk, high-gain situation for those individuals whose intellectual functioning is not so impaired that they cannot do college work. The most definite finding, from the clinicians point of view, is that students, with consultation, can help one another with emotional problems.

The involvement of professional staff in such a program leads to a more community-centered service involving one in consultation and contact with normal students and their problems. Consultation with residence hall staff and with faculty and advisers regarding course load, type of courses, and arrangements for modifying the characteristic program also contrasts with the functioning of a more parochial outpatient service.

Involvement with the project has led the staff to become interested in developing a more large scale program for individuals with a history of serious emotional problems modeled in many respects after the program for physically handicapped students at the University of Missouri (1968). Another outgrowth of our salutary experience in working with volunteers has been our consultation with normal volunteers who are establishing an emergency hotline and crisis intervention service (Sinnett, 1970).

Research

Baseline Study

The baseline study on the 1963-64 and 1964-65 nominees served to establish the severity of disturbances of the sample using both clinical diagnosis and MMPI data. Indices of scholastic ability and achievement for these S's showed them to have a satisfactory level of ability for college work even though their drop-out rate was extraordinary.

Process Variables

In general the measures of social-isolation involvement showed no change. If we were to repeat the study we would take our most promising measure, the AR (Sachson, Rappoport, and Sinnett, 1970) and collect data prior to entering the project. From clinical data, and observational findings as well as the measures of social behavior it appears that the characteristic changes are as follows. The typical client has been living a life barren in social contacts or involved in fleeting intimacies or superficial contact with others. In the project he comes to establish a few meaningful, lasting ties.

The Activity Record

The development of the AR appears to be one of the best achievements of the study; it is easily administered, sensitive to influence such as week-day versus week-end, sex differences, and reflects a differential level of social behavior as a function of residence. A small group of project members followed up after leaving the project showed that residence halls involve individuals in more social contact than other kinds of living quarters. It also is sensitive to group-differences in social behavior shown by client-volunteer comparisons. Research in progress (Sherman, 1970) shows that even when severity is controlled (studying clients only) individuals judged as action-oriented versus overcontrolled make more use of social space (e.g., lounges, lobby, friends apartments) as opposed to private space (e.g., own room). Relationships with MMPI variables also show validity: the AR measures relate over several samples as predicted to the introversion-extraversion scale and the depression scale. Unlike sociometric measures, a closed group is not needed to obtain adequate information for analysis.

Other Process Variables

Table 14 presents some judgments about the instruments which have been employed in the present study. Although our research staff was not directly polled, the judgments are representative of feelings they have repeatedly expressed in research meetings.

These judgments are not intended to apply outside our own study although they may be of some use to other investigators. None of the measures have been completely without merit, and none have been problem free. Each seems likely to provide some contribution to the total picture.

The neutral observation material has proved precise and relatively uncontaminated. It is easy to obtain but limited in scope. In spite of its objectivity this kind of measure can be affected by outside influences such as availability of lounge areas and dining-room schedules.

The Bales system categories provided no information, and only the gross measure of number of verbalizations at meetings was productive. The analysis of this variable indicates that both Cs and Vs talk more at the end of the semester. This is to be expected as project members become better acquainted and many clients become less afraid to voice concerns in front of the group.

The Activity Record seems the most promising of the measures. It is relatively objective but retains something of the quality of behavior. This instrument is more expensive to use than some other measures but the cost appears to be commensurate with the data obtained. The most important attribute of this instrument for the present study is that it can be used with Ss who cannot be observed directly.

The sociometric questionnaire proved less valuable than had been expected. This technique is inexpensive and is not intrusive. It relates to other measures and to personality variables yet its insensitivity to change greatly limits its usefulness. Mutual helping and friendship choices were better related to other social-psychological variables than numbers of choices made or received.

Table 14

Some Judgments about Operating Characteristics of the Social-Psychological Instruments

	Instruments				
Attritubes	Neutral Observation	Sociometric Questionnaire	A. R.	P. O.	Exit Interviews
Inter-observer agreement	excellent	N. A.	high	moderate	N. A.
Sensitivity to change	varies according to measure	low	varies	N. E.	N. E.
Stability over time	variable--depends on measure use	good	good	N. E.	N. A.
Relationship to other measures	moderate	moderate	good	promising	N. A.
Qualitative richness	low	low	moderate	high	high
Contribution to treatment planning	little	little	low	high	high
Cost	low	low	moderate	high	low
Intrusiveness	varies	low	low	low	low
Artifacts	some	some	some	depends on observer	usual limitations of interview
Overall satisfactoriness	moderate	low	good	good	good

N. A. = Not applicable

N. E. = Not evaluated

Participant Observation

Data from participant observers was most helpful to us in program operation. It was one of the richest sources of qualitative data about such matters as the climate of the group at a given time, morale among volunteers, developing problems among individuals or sub-groups. We found that few incidents were really surprises and were often able to intervene as problems developed and before they became crises as a result of weekly debriefing of two student volunteer participant observers.

Participant observer reports also seem a potentially rich source for narrative accounts of the project group.

Quantification of participant observer reports or more formal descriptive analyses is difficult. The work done by Barker and his collaborators and students (Barker, 1963) seems to offer a promising framework for developing such observations into an account of events in the stream of behavior. Further efforts are needed in this area. Even though accounts such as those by Caudill (1958), Goffman (1961) and Polsky (1962) offer valuable insights, a more rigorous approach to description, categorization, and quantification might be even more illuminating. Willems' (1969) work seems to be an especially promising thrust of this character.

Comparatively the observations by neutral observers (not members of the project) were of very limited value for either project management or research.

The analyses of participant observer ratings appear to reflect some drawing away from close contact at the end of the semester. This is in accord with staff observations that as the semester goes on Ss undergo a "burn out" or decline of interest in the group rather than a significant change in adjustment or move toward isolation.

Exit Interviews also proved helpful in both project administration and research. They too, however, are limited by being difficult to quantify.

In general our social-psychological variables have produced a low positive correlation manifold with some inconsistencies. We have interpreted this as indicating that, while they are all measuring some aspect of social behavior, they are not interchangeable.

The ways in which our social-psychological variables measure might be likened to Cronbach's thesis (1957) about psychological tests. He feels that some tests, such as the Rorschach, measure many aspects of the person, each with a low degree of precision. Other tests accurately assess more specific facets of the individual but reveal little about him from an overall viewpoint. Similarly, some of our instruments give us information about a broad spectrum of behavior and the milieu of the living unit, but do not reliably measure single dimensions. The participant observation and exit interviews are of this type. Other measures, such as sociometric questionnaires, supply data which are detailed and specific but, like a microscope, provide no insight into the functioning of the organism as a whole. Both kinds of investigation are of use and together can complete the picture as neither could taken alone.

Rankings of Resources. The Cs and Vs rankings of sources of help showed informal relations with peers to be regarded as significant as professional counseling or psychotherapy. Findings from a recent unpublished study by Sinnett indicate this may be a special case of a more general phenomenon. Kansas State students in general turn primarily to their peers for help with their personal concerns even when parents, professors, residence hall staff and other campus resources are considered.

Academic Performance. The interpretation of the findings for the drop-persist-graduate measure is complicated. The client group, although well-matched on many variables, differs in a variable of critical concern; i.e., the client group is significantly more emotionally disturbed than the clinical control group. The drop-persist-graduate measure is related in the expected manner to severity of disturbance for all Ss studied including those nominated who did not participate as clients or clinical controls. Severity is associated with high drop-out and low persistence and graduation rates. However, the client and clinical control groups do not differ in drop-persist-graduate rates even though the Cs are significantly more disturbed. Thus, it would seem that the effect of the living unit program has been to reduce the effect of severity of disturbance on scholastic performance. A similar conclusion is warranted when one compares the results of the Cs with that of the baseline study done prior to the advent of the rehabilitation living unit. For two successive years four groups totaling 104 cases showed a drop-out rate of 50% in the year in which they were nominated. For clients the rate has been approximately 25% during the year nominated. Even following the client group from the inception of the project eight semesters ago to the present has not yet yielded a rate this high.

From following the drop-out rate of nominees over successive semesters it appears that the drop-out occurs principally during the year in which they are identified. Thus it would appear that intervention during the year in which identified is critical and can result in retention in school.

Adjustment-Severity

One of the most interesting methodological findings was the promise shown by an innovative application of a psychophysical method a dimension of adjustment or severity of disturbance (Sinnett and Stone, 1970). A method introduced by Stevens, the method of direct magnitude estimation, was used to scale adjustment. It results in much better discrimination than category or rating scales and shows good interjudge agreement. As used to date, it depends on comparisons within a reference group. However, further research is planned in order to provide some anchoring of scale points and also for repeated measures on the same S. A P-type design such as Cattel has offered might yield valuable data.

Follow-up

The one-year follow-up study showed generally good adjustment for members of both C and CC groups. However, there was some indication of selective participation on the part of the more successful. Since many students of both groups were still in school, it would be of interest to do a follow-up when all are in the community. Success in a university setting may be unrelated to success in the community.

Summary

Experience with sixty-four college student clients (some of whom have been provided services since the completion of the research project) has demonstrated that severely emotionally disturbed students can be provided satisfactory care in a rehabilitation living unit in a regular university residence hall without remarkable stigma or high risk of hazards to themselves or others.

Students can help one another when provided proper consultation from mental health professionals. Normal volunteers can be trained to be resources to their troubled peers.

Ordinarily the drop-out rate for students nominated for a special service such as this one is very high (50% in the year nominated). Intervention by means of a therapeutic community approach increases the likelihood of persistence in college.

Perhaps the most important contribution of the research was methodological contributions in two areas: one, the development of the Activity Record, which measures social isolation-involvement; and two, the measure of adjustment vs. severity of disturbance by a psychophysical method, direct magnitude estimation.

Personality measures show symptomatic improvement and more favorable presentation of self to others as well as indications of increasing personal comfort. Both clients and controls showed these changes. There was no differential superiority of clients vs. clinical controls, however, the client group was more disturbed on initial status than the control group.

Although the client makes relatively intensive use of medical services while a project member, he typically uses less services after he leaves the service--no more than normal volunteers.

Much of the value of such a program is attributed by clients to the informal relationships with their project peers. These relationships are judged by clients to be as important as professional counseling or psychotherapy.

A follow-up conducted in the last year of the study among those clients who had been out of the project for one year and a comparable group of controls showed relatively good functioning for both groups. There was, however, some evidence of selectively greater participation in the follow-up by the more successful clients.

Most of those interviewed at follow-up were continuing their education or involved education or training. A long range follow-up of the entire samples of the clients, controls, and normal volunteers to assess long-range effects on the community adjustment should be undertaken.

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APPENDIX A

Forms for Dining Room and Lounge Observations

DINING ROOM FORM

Day Wednesday Date 4-10-68 Lunch x Dinner ___ Breakfast ___ Observer gs

Subjects	Time	Table Size
50, 41, 47, 46, 43	12:00	8
50, 41, 47, 46, 43, 52, 44	12:15	8
42, 45, 52, 44	12:30	8
51, 48	12:45	12

LOUNGE FORM

Day Thursday Date 4-11-68 Observer gs

SUBJECTS	TIME	LOCATION	ACTIVITY
41	4:00	Basement Lounge	Studying
51, 48	4:15	Project Lounge	Talking
50, 51, 48, 46	4:30	Project Lounge	Listening to records; talking
50, 51, 48, 46, 47, 43	4:45	Project Lounge	Listening to records; talking
52, 45	5:00	Lobby	Talking

APPENDIX B

Bales Categories and Coding Form

Bales Categories

A.

1. SHOWS SOLIDARITY, Raises other's status, gives help, reward.
2. SHOWS TENSION RELEASE, jokes, laughs, shows satisfaction (affect important).
3. AGREES, shows passive acceptance, understands, concurs, complies, includes sympathetic agreement.

B.

4. GIVES SUGGESTION, direction, makes definite proposal.
5. GIVES EVALUATION, analysis, expression of feeling, wish.
6. GIVES ORIENTATION, information, repeats, clarifies, confirms.

C.

7. ASKS FOR ORIENTATION, information, repetition, confirmation.
8. ASKS FOR EVALUATION, analysis, expression of feeling.
9. ASKS FOR SUGGESTION, direction, possible ways of action.

D.

10. DISAGREES, EVALUATES, shows rejection, formality, withholds help.
11. SHOWS TENSION, asks for help, withdraws out of field. Includes self-directed negative reaction.
12. SHOWS ANTAGONISM, deflates other's status, defends or asserts self, includes other-directed negative reaction.

Bales Categories Coding Form

	A			B			C			D			
Subject	1	2	3	4	5	6	7	8	9	10	11	12	Subject
80					5		1	1		1			80
81		2		1		1		2					81
82			1		2								82
83			1		1	3	1	2					83
84				1	2	4		5			1		84
85		2		2			4						85

APPENDIX C

Sociometric

Instructions: We are interested in finding out the resources you turn to when troubled or in need of help, and also in the friendship structure of the group. Those you cite as friends may or may not be the same people you cite as helping resources. In each question list the people by their correct name (if you know it--if you don't know it, mention this to the interviewer) and list them under the correct category; people in the Counseling Center will come under University staff, as well as will University instructors, etc. Place the questionaire in the sealed envelope you have been provided, and return it to your interviewer. The information you provide will be kept completely confidential. If you find you need more room, use the back of the sheet, but be sure to put down the number of the item you are answering.

1. Whom do you turn to for help when you have personal troubles?

   Students in Project: University Staff: Other:

2. Whom would you not turn to when you have personal troubles?

   Students in Project: University Staff: Other:

3. Who are your close friends:

   Students in Project: Other:

4. Whom would you not want for a friend?

   Students in Project: Other:

APPENDIX D

Activity Record Form

Name _____ Date 7-11-7x Day Friday

Time	Place	Activity	Project Member	Non-Project Member
7:15-7:35	bath.	cleaning up	0	0
7:35-8	kitchen	eating (t) *	0	1
8-8:50	room	cleaning, studying (t)	0	1
8:50-9:10	room	dressing	0	0
9:10-9:15	car	driving	0	0
9:15-9:30	Seaton	waiting, reading	0	0
9:30-10:20	Seaton	class	---	---
10:20-10:30	campus	walking (t)	0	2
10:30-11:20	Waters	class	---	---
11:20-11:30	campus	walking (t)	1	0
11:30-12:15	Union	eating (t)	2	0
12:15-1:20	Union	cards, ate (t)	2	1
1:20-1:30	campus	walking (t)	0	1
1:30-3:30	Denison	class	---	---
3:30-3:45	car	driving	0	0
3:45-5:40	Aggieville	shopping (t)	0	1
5:40-6:05	car	driving	0	0
6:05-6:45	kitchen	fix and eat dinner	0	0
6:45-7:30	room	study	0	0
7:30-7:40	car	driving	0	0
7:40-8:30	friends' apt.	study, listen to records, (t)	3	1
8:30-8:40	car	driving (t)	1	0
8:40-9:45	liv. room	TV (t)	1	0
9:45-9:55	car	driving (t)	1	0
9:55-10:10	tavern	drinking (t)	1	0
10:10-12	tavern	drinking (t)	3	2
12-12:10	car	driving (t)	1	0
12:10-1	car	talking	1	0
1-1:10	car	driving	0	0
1:10-1:45	room	talking	0	1
1:45-2	bath.	getting ready for bed	0	0
2	room	to bed		

* Talking

APPENDIX E

Activity Record Manual

Procedure and Design

Fifteen-minute interviews are conducted in which Ss carefully recount the previous day's major activities.[1,2] The interviewers note in sequence each setting (place) S reports, what the activity in that setting was, length of time, and how many persons were present in each setting. Of particular interest in taking the Activity Record (AR) is whether any conversation took place in a particular setting. Interviews are conducted for a weekday and a Saturday during three time periods across the semester. Activity Record forms are provided for this purpose (Appendix D). It has been found that after one interview, most Ss become "trained". They know what is expected of them and the interview session is thereby shortened. There are some Ss who report minute by minute accounts of their activities while others may report such large blocks of time that they are not amenable to analysis.[3] Through the skill of the interviewer, these small segments are built up into a major activity while the larger blocks are broken down into their component parts.

Analysis

The major variables derived from these data are as follows: (1) % of time alone (TSA); (2) % of time spent in conversation (TC); and (3) # of contacts reported (NC).

---

1. Major activities are those lasting 5 minutes or longer.

2. Since only major activities are considered, there is some estimation of the time period.

3. Some Ss report large blocks of time because they cannot recall what actually occurred. They are asked to estimate as closely as possible the major segments of these time periods.

1) The TSA for each S is derived from those settings in which he reports no other persons present. The number of minutes alone is divided by the Total Time Awake (TTA)[4] to derive TSA. TSA also includes settings in which S is alone although other people are present (i.e., studying in the library). Unless S is specifically with some other person(s), the time is included in his TSA. The only exception to this rule is when the activity is not voluntary. For example, classes and meetings are not included in TSA because S has no choice in this.

2) TC is similarly derived by dividing by TTA. For each setting, if not specifically mentioned, S is asked if any conversation took place and for what part of the time. The whole time period is scored only when conversation was the major activity. If S mentions another activity taking place at the same time, it is scored as 1/2 conversation time. For activities lasting for long periods (1 hour or more) S is asked to estimate the amount of time he was actually talking. Conversation is defined as any verbal interaction between two or more people that is voluntary (meetings, classes, work, etc., are not included in computing TC).

3) The number of contacts for each S is additive. It is derived by simply summing the column representing total number of persons reported with in various settings (not including the subject himself). Settings change as the # of contacts increases or decreases.[5] When S is in the company of many others (i.e., 30 at a party), he is asked to estimate how many people he had significant contact with (for more than 5 minutes). Merely saying "hello" to someone is not included in the NC.

---

4. TTA is derived by taking the total # of minutes for the time S awoke to the time he goes to sleep. (This includes periods during the day in which he was sleeping).

5. For example, if S sat at lunch with 3 others for 15 minutes and then 2 others came, they would be listed as 2 separate activites (although the activity was the same).

APPENDIX F

Debriefing Outline for Participant Observers

A. Groupings
   1. Large group meeting (Monday night) -- activity of various people present and content -- informational and emotional
   2. Informal groupings
      a. Types of groups, i.e., dining room, cards, ping pong, cliques, conversational
      b. Presumed reasons why these people make up a group
      c. Characteristic traits of the groups -- themes, what they do
      d. Dominant members and group structure

B. Critical Incidents
   1. Emotional episodes affecting more than one member of the group
      a. Important things that have gone on
      b. Presumed causes and effects

C. Roles in the Project
   1. People filling a function of a certain kind -- i.e., people who are leaders, followers, isolates, who do as they please, who are initiators, who come up with ideas
   2. People as sources of information -- i.e., those who are sought out as specialists and their specialties
   3. People acting as problem solvers or those who are taking problems to someone else

D. Feelings about the Project
   1. Attitudes toward the staff and project members
   2. Attitudes toward meetings and other project functions

E. Topics of Conversation -- during the week among project members

F. Dating -- Who is dating whom

G. Individual Project Members -- mention each project member individually and discuss anything that comes up about the person and his general behavior over the past week

H. Any Imminent Events -- or feelings present that may materialize in the future

APPENDIX F (CONT.)

Cataloguing of Debriefing Interviews

Debriefing interviews will be catalogued in two ways: (1) by person observed, and (2) by content categories. A list of the content categories now being used follows:

A. Items relating specifically to self
   1. Personal problems
   2. Dating
   3. Self-appraisal
   4. Mannerisms or habits
   5. Personality
   6. Free time - vacations, etc.
   7. Appearance
   8. Attitude
   9. Health

B. Items concerning relationships with others
   1. Relationships with specific others, i.e., other people by name
   2. Relationships with others in general
   3. Relationships with family
   4. Relationships with project members
   5. Relationships with project staff

C. Items directly relating to the project
   1. Activity within the project, i.e., things that are done with other project members
   2. Role in the project
   3. Feelings about the project
   4. Project unity, i.e., successful parties
   5. Project problems
   6. Moving in or out of the project

D. Items relating to other activities not covered
   1. Activities in school -- academic and grades
   2. Activities in school -- extracurricular
   3. Friendship
   4. Cliques

As can be seen from this listing, it is possible and desirable to further break down many of the headings as they now appear (i.e., C.2: Role in the project). However, this kind of analytical breakdown will be possible only as further data are collected and is desirable only as the need arises.

APPENDIX G

Social Psychology and Personality Variables Used in Factor Analysis

1. Volunteer =1, Client = 2
2. Severity Rating
3. Male = 1, Female = 2
4. Fr Choices Recd -- First
5. Fr Choices Recd -- Last
6. Mean Fr Choices Recd
7. Help Choices Recd -- First
8. Help Choices Recd -- Last
9. Mean Help Choices Recd
10. Friendship Choices Made -- First
11. Friendship Choices Made -- Last
12. Mean Friendship Choices Made
13. Help Choices Made -- First
14. Help Choices Made -- Last
15. Mean Help Choices Made
16. Mutual Friendship Choices -- First
17. Mutual Friendship Choices -- Last
18. Mean Mutual Friendship Choices
19. Mutual Help Choices -- First
20. Mutual Help Choices -- Last
21. Mean Mutual Help Choices
22. Mean Freq Response in Mtgs--First
23. Mean Freq Response in Mtgs--Last
24. Mean of Mean Freq Response in Mtgs
25. % Weekday TSA -- First
26. % Weekday TSA -- Last
27. Mean % Weekday TSA
28. % Weekday TC -- First
29. % Weekday TC -- Last
30. Mean % Weekday TC
31. Weekday NC -- First
32. Weekday NC -- Last
33. Mean Weekday NC
34. % Weekend TSA -- First
35. % Weekend TSA -- Last
36. Mean % Weekend TSA
37. % Weekend TC -- First
38. % Weekend TC -- Last
39. Mean % Weekend TC
40. Weekend NC -- First
41. Weekend NC -- Last
42. Mean Weekend NC
43. Gregariousness Index -- First
44. Gregariousness Index -- Last
45. Mean Gregariousness Index
46. No dif pro mem obs with in DR--First
47. No dif pro mem obs with in DR--Last
48. Mean no dif pro mem obs with in DR
49. High School Rank
50. Mean ACT Standard Score
51. Tablemates Above Chance -- First
52. Tablemates Above Chance -- Last
53. Mean Tablemates Above Chance
54. MMPI L
55. MMPI F
56. MMPI K
57. MMPI Hs
58. MMPI D
59. MMPI Hy
60. MMPI Pd
61. MMPI Mf
62. MMPI Pa
63. MMPI Pt
64. MMPI Sc
65. MMPI Ma
66. MMPI Si
67. MMPI Es
68. MMPI Dn
69. IS DOM
70. IS LOV
71. III MM DOM
72. III MM LOV
73. II S DOM
74. II S LOV
75. II M DOM
76. II M LOV
77. II F DOM
78. II F LOV
79. V Id DOM
80. V Id LOV
81. DOM Staff Rating -- First
82. DOM Staff Rating -- Last
83. Mean DOM Staff Rating
84. LOV Staff Rating -- First
85. LOV Staff Rating -- Last
86. Mean LOV Staff Rating

APPENDIX H

Terminal Interview Form

The interview questions are as follows:

1. How did you feel about being in the project?

2. What did you get out of participation in the project?

3. a. What should we have done differently?

   b. How did you feel about the amount of research activity?

4. a. Should new members be advised to reduce course loads?

   b. Should more emphasis be given in the project to scholastic achievement?

   c. If so, how should this be accomplished?

5. If you had it to do over again, would you have come to the project? Why?

6. Knowing what you do now, what would you do differently in the project?

7. What did you find most helpful in the project? Rank order the following items from most helpful (1) to least helpful (5).

   ____Informal conversations with project members

   ____Large group Monday meetings

   ____Small group Monday meetings

   ____Periodic interviews with staff

   ____Regular counseling appointments

APPENDIX I

Followup Interview Form

Interviewee:_____ Date:_____
Interviewer:_____ In Person___ By Phone_____

Open interview by stating again why we are doing this and note whether or not the interviewee wishes to receive a copy of the followup report.____

MISCELLANEOUS BIOGRAPHICAL DATA

1. Age:___ Marital Status: Single ___ Married ___ Divorced ___ Separated___
2. Number of Children: _____.
3. Living Arrangements: Where are you living at present? (With parents, in own apartment, room, or other)_____
   How many people are living there? ___ What relationship is each to you? (Friend, parent, sibling, or other)_____
   If living at home, do you pay room and board?_____ How much?_____
   How long have you been living where you are now?_____Are you fairly well satisfied with this living arrangement?_____
   Have you moved in the last six months? If yes, how many times?_____
4. Education or Special Training: Have you attended college, a technical school, or been in any training program since leaving the project? _____If so, please describe. (When, where, how long, degree earned, etc.)_____
   Would you say your performance in this since leaving the project has been: excellent_____, good _____, fair_____, or poor_____?
5. Military Service: Have you been in the military service since leaving the project? _____For how long?____Has this been a reasonably good experience or have there been any problems with this?_____

OCCUPATIONAL INFORMATION

6. Are you presently employed? Full-time__Part-time___None___? (If not working or working only part-time to ascertain the reason for this._____
7. How long have you been working at the present job?_____
8. Do you supervise other employees?
9. Have you received a promotion since working there?
10. Do you enjoy your work?
11. Do you feel the job demands more or less than you are capable of handling?___
    Do you feel your job requires some special skills or talent or could someone with a high school education fill the job just as well?_____
12. What salary or wage do you earn?_____
13. If married, what is spouse's employment? (Where, type or job, wages, hours)
14. Does anyone else contribute to your support?_____How much?_____
15. Since you are not working, what do you do to occupy your time?_____
    Any work-like activities?_____
16. Since you are a housewife and not working, I wondered why you are not working? Do you choose not to?____ Is it because you feel your place is in the home or some other reason?_____
    What other activities are you involved in other than keeping house? (Community activities, TV, reading, coffee clutches, church work, golf)_____
17. Have you held any jobs other than your present one since leaving the project? If so, let us list them one at a time, giving job title or description, dates, salary, full or part-time, and reasons for leaving._____

APPENDIX I (CONT.)

SOCIAL ADJUSTMENT

(Interpersonal Relationships, Community Adjustment, Leisure-Time Activities)

18. Would you tell me briefly some things about how you feel about your present interpersonal relationships? For example, what is the nature and quality of your present interpersonal relationships, and do you feel satisfied with them?_____
How many close, mutual friends would you say you have now?_____It is not necessary for you to name them, but would you tell me a little more about these friendships? Lets list them one at a time (limit this to six), giving whether they are male or female, their present age, how frequently you have contact with them, how long you have known them, and the general nature of each friendship:_____
Are your friends of about the same age group in relation to your age as when you were in the project or are they older or younger, more near your age, or what?_____
Do you feel your social activities are quite different in nature now than when you entered the project and if so, how different?_____
Are you satisfied with your present social adjustment? If now, what about it would you like to be different or better?_____
19. Are you dating at present?_____Steadily?_____Do you feel you have any problems with dating relationships now? If so, what?_____
Are your dating relationships any different now than when you entered the project?_____If so, how?_____
20. Are you now or have you recently been affiliated with any formal or semi-formal (organized) groups such as social, business, or recreational groups? Describe_____
21. Have you encountered any problems in the community, such as trouble with the law, problems in getting along with neighbors, roommates, fellow workers, or others?_____If so, please explain._____
22. What leisure-time activities do you now participate in? (TV, sports, reading etc.) Describe._____
23. Do you still have contact with some of the former project members?_____
If so, please list who they are and the frequency and nature of these contacts (letter, personal visits, etc.)_____

HEALTH

24. How is your health now?_____
25. Have you had any hospitalizations since leaving the project?_____
When?_____For how long?_____For what?_____
26. Have you been in therapy since leaving the project?____Give details such as hospitalization record, in-patient or out-patient, how long, etc._____
27. Are you taking any medication such as sedatives or tranquilizers?_____
What?_____

INTERVIEWEE'S PERSONAL OBSERVATIONS

28. How do you feel now about having been in the project?_____
29. How did you benefit from being in it?_____

APPENDIX I (CONT.)

30. What factors of the project do you now feel were most helpful to you?_____
31. Do you feel you are better adjusted now because of having been in the project?_____
32. Have there been any recurrences of old problems that bothered you about the time you entered the project?_____
33. Have any new problems developed since you left the project?_____
34. Are there any problems with which you feel you need help at present?_____
35. Is there anything else you would like to say about yourself, someone else, or anything you might like to comment on at the present time?_____
36. Are there any questions you would like to ask me?_____

INTERVIEWER'S OBSERVATIONS

Interviewee's personal appearance:_____
Interviewee's attitude toward the interview and the interviewer:_____
Other remarks:_____