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ABSTRACT

The Delgado Rehabilitation Center, New Orleans, Louisiana, conducted this study to determine the influence of family therapy on clients receiving rehabilitation services at the Center. An experimental group of randomly selected relatives of 33 clients received group therapy while 39 other randomly selected relatives served as controls. Criteria variables used to evaluate the influence of group therapy were of two types: (1) those measuring the client's rehabilitation potential through evaluation of personal, social, educational and vocational factors; and (2) those reflecting the client's adjustment and vocational success a year after leaving the Center. Client changes among the experimental group were significantly higher for a number of personal and vocational objectives, while no significant changes were evidenced by the control group. (SJL)

SOME INFLUENCES OF FAMILY GROUP THERAPY ON THE REHABILITATION POTENTIAL OF CLIENTS

FINAL REPORT

A Delgado Research Study

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PROJECT NUMBER
12-P-55223/6

1971

DELGADO JUNIOR COLLEGE NEW ORLEANS, LOUISIANA
DR. MARVIN E. THAMES, President

SIGNIFICANT FINDINGS

1. Clients whose relatives participated in group therapy (experimental group) had ten out of twelve positive changes in evaluator's ratings from the third to the sixteenth week. Two ratings were unchanged and none were negatively changed.

   Only six out of twelve changes in these ratings on control clients were positive; an equal number were negative.

2. Changes in these ratings from the third to the sixteenth week were significantly higher for experimental clients as compared to control clients on ratings for:*

   Work traits of organization, initiative and perseverance
   Adjustment to co-workers and supervisors
   Meaningfulness of vocational objective
   Quantity of work

3. One year or more after leaving the Rehabilitation Center, as determined in a follow-up interview

   A. A significantly higher proportion of the control group was working, while a significantly higher proportion of experimental clients was in school. Experimental clients had changed jobs less often and held higher level positions.

   B. Among clients in school, experimental clients remained in school significantly longer and were making better grades. They also were significantly higher in their satisfaction with school.

   C. Clients in the experimental group reported significantly better family understanding of them than those in the control.

   D. Clients in the experimental group rated themselves significantly higher on a scale measuring satisfaction with their home situation.

4. Three instruments developed were found to have satisfactory reliability.

   The reliability of scales used to measure evaluator's ratings was .86; reliability of the Family Understanding Scale was .7-; reliability of the Home Satisfaction Scale was .80.

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*Significant refers to differences at the 5 per cent level or lower.

SOME INFLUENCES OF FAMILY GROUP THERAPY ON THE REHABILITATION POTENTIAL OF CLIENTS

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FINAL REPORT

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ABSTRACT

SOME INFLUENCES OF FAMILY GROUP THERAPY ON THE REHABILITATION POTENTIAL OF CLIENTS

At the Delgado Rehabilitation Center, New Orleans, Louisiana, an experimental group of randomly selected relatives of 33 clients received from 1 to 29 weekly sessions of group therapy while 39 other randomly selected relatives had no therapy. A pre-therapy interview established essentially equal motivation for all relatives.

Therapy was non-directive and flexible, beginning with educational material about clients and moving to supportive and counseling therapy with introspection encouraged.

Tests prior to the study showed no significant difference between experimental and control groups in age, disability, sex, religion, time at the Center, and work area assigned, and at the end of the study no significant difference on nine therapy variables received during the experiment such as social service, psychotherapy, counseling and so forth.

After sixteen weeks, clients in the experimental group had showed significant improvement in evaluative ratings of organization, initiative, and motivation at work, in cooperativeness, in meaningfulness of vocational objectives, and in quantity of work produced. One year after leaving the Center, significantly more experimental clients were in school while significantly more control clients were working. Employed experimental clients had a higher job level and few job changes. Experimental clients had stayed significantly longer in school and made significantly better grades. Experimental clients believed their family had significantly better understanding of them and they reported significantly better satisfaction with their home situation than control clients.

All differences at the 5 per cent level and less were considered significant.

CHAPTER I

BACKGROUND FOR THE STUDY

Previous Experience With Group Therapy

For two years prior to 1965, with the aid of the psychiatric consultant, the social work staff of the Delgado Rehabilitation Center had engaged in group therapy sessions with significant relatives, usually parents or spouses, of men and women who were undergoing vocational evaluation (referred to as clients in the remainder of this report) at this facility. No formal evaluation of progress had been made, but when the project was terminated because personnel were needed for other duties, the participants as well as others at the Center believed that considerable benefit to the clients had accrued. Impressions indicated that group therapy produced changes in the client's immediate family and in the client's relationship to family members. These changes had appeared to enhance the client's individual expression and productivity, which in turn were believed to positively affect his or her social, emotional, and vocational functioning.

Prior to this project, the project director had utilized this group method of treatment in child welfare settings, mental retardation facilities, a penal institution, and psychiatric in-patient and out-patient treatment units. He had believed these efforts were successful but had carried out no formal study of effects. The psychiatric consultant had also worked with groups in various settings and was interested in evaluating the effectiveness of this method at the Delgado Rehabilitation Center.[1] Through his encouragement, the authors then developed this design to provide a means for evaluating the immediate and more durable long-term results of family group therapy[2] as it influenced rehabilitation clients' activities.

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[1] Alvin Cohen, M.D., the psychiatric consultant, stimulated the present research by providing ideas relating to the content of the group therapy experience and emphasized the value of this approach in a rehabilitation setting.

[2] The term family group therapy denotes nuclear family involvement in a therapeutic process involving other nuclear families. This is an ideal model that previous experience and subsequent research at Delgado had shown to be difficult to achieve since more than half of the clients that attended the Center either lived with relatives or friends. For this reason we choose to involve nuclear family members, relatives, and friends.

Goals of the Study

The general purpose of this project was to add to knowledge in the field of evaluating and rehabilitating the handicapped. Specifically, it was aimed at increasing professional understanding of preparing clients for rehabilitation, at evaluating their potential for participation in the rehabilitation process, and at validating these goals by a follow-up study.

The project had two goals. The first goal was to study whether differences in a variable called "rehabilitation potential" occurred between two client groups in their responses to vocational evaluation and counseling services provided by the Delgado Rehabilitation Center, when the relatives of one group had engaged in group therapy and the relatives of the second group had not. The expectation was that those clients whose relatives had received group therapy (called the experimental group) would receive more benefit from vocational evaluation and counseling and be more ready for rehabilitation services than those clients whose relatives had not had group therapy (called the control group).

The second goal was to validate this readiness for rehabilitation services by a follow-up study of the clients one year after they had left the Delgado Rehabilitation Center. It was expected that at the end of a year, those clients whose relatives had participated in group therapy would show continued better rehabilitation progress than those clients whose relatives had not had group therapy. The higher rehabilitation progress among the experimental clients was expected to be shown by better school progress if they were in school, better progress on the job if they were working, and more satisfaction in their home situation. This determination was to be made by scores obtained by the client on questionnaires related to this content and by an evaluation made by an experienced social worker.

Previous Related Studies Showing Need for This Study

Though various studies, indirectly related to this project, were located in a review of the literature, no research specifically like this project was found.

Van Blaaderen-Stok, in a 1970 article endorses the earlier work of Ackerman and Satire.[3] He emphasizes the necessity of viewing the family as a pathological unit. Bardach, who reported on the rehabilitation of aphasic patients, states that more attention should be

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[3] C. L. Van Blaaderen-Stok, "An Approach to Family Therapy Along Analytic Lines," International Journal of Group Psychotherapy, Vol. XX, No. 2, (April, 1970), 241-244. See also Nathan W. Ackerman, Psychodynamics of Family Life: Diagnosis and Treatment of Family Relationships (New York: Basic Books, Inc., 1958), and Virginia Satir, Conjoint Family Therapy: A Guide to Theory and Techniques (Palo Alto, California: Science and Behavior Books, Inc., 1964).

given in both rehabilitative and medical terms to the ramifications a severe disability has upon persons maintaining significant relationships with the patient.[4] Rabin reported that preparing participants for group therapy has received little attention and he encourages more research along this line.[5]

This approach, however, appears to have received only limited endorsement. Krasner divides research concerning group therapy into the study of variables related to the therapist, variables related to the situation, and variables related to the patient-therapist interaction.[6] The patient remains isolated from the totality of his family unit, and therapeutic considerations are focused on this individual. Rosenthal and Schaness cite 155 published reports covering a variety of examples of research.[7] At least 90 per cent of these research reports studied therapy situations in which persons who are expected to benefit are the ones engaged in therapy. A sampling of studies of therapy with persons other than those directly benefiting does not reveal any evaluation relating toward work potential or training. Ambramson and Peshkin report[8] therapy with parents of "intractably" asthmatic children; Hirsch[9] and Wiedorn[10] tell of group counseling with hospitalized patients designed to help given members of the group indirectly. Although Waldman and Reiser note that the job placement

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[4]Joan L. Bardach, "Group Sessions With Wives of Aphasia Patients," International Journal of Group Psychotherapy, Vol. XIX, No. 3 (July, 1969), 361-365.

[5]Herbert Rabin, "Preparing Patients for Group Psychotherapy," International Journal of Group Psychotherapy, Vol. XX, No. 2 (April, 1970), 135-144.

[6]Leonard Krasner, "The Therapist as a Social Reinforcement Machine," Research in Psychotherapy, Vol. 2, Hans Strupp and Lester Lubersky, editors, American Psychological Association, 1962.

[7]L. Rosenthal and G. Schaness, "The Group Psychotherapy Literature 1961," International Journal of Group Psychotherapy, Vol. XII, No. 2, (1962), 240-259.

[8]H. Ambramson and M. Peshkin, "Group Psychotherapy of the Intractably Asthmatic Children," Journal of Child Asthma Res. Inst. Hosp., 1:77, (1961).

[9]S. Hirsch, "Group Counseling With Relatives of Hospitalized Patients," Journal of Jewish Community Service, 37:236, (1960).

[10]W. Wiedorn, "Group Therapy for Families," Mental Hospitals, 12:21, (1961).

rate for persons who had therapy was two times that of persons who did not, their efforts were with those persons directly involved in the question of alteration of work adjustment.[11]

Rickard comments on 22 articles which "meet the minimum requirements of a control group and at least one objective criterion of improvement."[12] None of these dealt with the field of vocational rehabilitation and all were studies of changes in persons directly participating in group therapy. Traux did research on group psychotherapy of psychiatric patients and juvenile delinquents, with and without a leader, and on the processes within group therapy which facilitate personality change.[13] His feeling was that his study might be helpful in using group therapy for rehabilitation purposes, but this point of view was not his focus.

Macdonald and Griswold reported that counselors were able to describe their client's family inter-relationships as helping or hampering.[14] Counselors were able to judge whether present family relationships would influence the client's rehabilitation. Counselor's estimates of client's family relationships and client's prognosis were significantly associated.

Wheat, et al., have reported upon the rehabilitation of psychiatric patients through group therapy and individual counseling.[15] The counseling of family members of the patients was curtailed due to financial limitations, and they stated that, "this was necessary despite a conviction that family attitudes frequently promoted maintenance of the patient's disability or sabotaged efforts to utilize his

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[11] M. Waldman and M. Reiser, "Group Psychotherapy and Personality Factors in a Work Adjustment Process," Journal of Jewish Communal Service, 38:167, (1961).

[12] Henry C. Rickard, "Selected Group Therapy Evaluation Studies," Journal of General Psychology, Vol. 67, (July, 1962), 35-50.

[13] Charles B. Truax, "The Therapeutic Process in Group Psychotherapy: A Progress Report of the First Ten Months of Project Operations," Vocational Rehabilitation Administration, Project No. 906-P.M.

[14] Robert W. Macdonald and Manger J. Griswold, "Perceptions of Need for Family Involvement in Vocational Rehabilitation," Region IX, Rehabilitation Institute Newsletter, Seattle, Washington, July, 1967.

[15] William A. Wheat, Regina Slaughter, Jerome H. Frank, "Rehabilitation of Chronically Ill Psychiatric Patients," Final Report Project No. 155, Johns Hopkins University.

abilities."[16]

Marx reported upon counseling with parallel groups of delinquent children and their parents, saw the groups as (a) offering insight into problems and needs; (b) producing changes in attitudes; (c) aiding in recognition of group and social values and pressure; (d) developing helpful, supporting, and maturing relationships; (e) helping parents recognize their own problems apart from their children; (f) assisting the family as a whole to accept responsibility for problems expressed in the child's difficulty; and (g) helping the family achieve a more realistic view of probation.[17]

Closer to the goals and design of this study were three reports from mental hospitals. Julian, et al., reported upon the utilization of multiple family therapy in the treatment of young schizophrenic patients.[18] One of the original expectations of the group process was that the rehabilitation of these patients might be greatly facilitated by opening channels of communication between patients, relatives, and the staff. Though based on a relatively small sample (one group of six patients) and using no rigorous criteria of success, a gradual return to the community appears to have been promoted by the supportive framework of the multiple family group. This also served the function of making hospitalization dependence a more acceptable necessity for the given patients. Chittick, et al.,[19] and Hyde, et al.,[20] both reported upon comprehensive rehabilitation programs making use of group therapy. Chittick, working with a large sample of 402 chronic schizophrenic patients, reported an improved release rate as a result of group therapy. Hyde reported that casework was done with the families of patients in several instances and that "some . . . rehabilitation failures were in retrospect due to failure to deal with crucial members of the family whose attitudes toward the client had to change to

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[16] Ibid., p. 1.

[17] George L. Marx, et al., Counseling in Probation and Parole: A Research Report, SRS Grant No. RD-2426-G, 1969, p. 13.

[18] Brigitte Julian, et al., "Multiple Family Therapy: The Interaction of Young Hospitalized Patients with Their Mothers," International Journal of Group Psychotherapy, Vol. XIX, No. 4, (October, 1969), 501-509.

[19] Rupert A. Chittick, George W. Brooks, Francis S. Irons, William M. Deane, The Vermont Story: Rehabilitation of Chronic Schizophrenic Patients (Burlington, Vermont: Queen City Printers, January, 1961).

[20] Robert W. Hyde, J. Sanbourne Bockover, Harold W. Pfants, Richard H. York, Milieu Rehabilitation, Butler Health Center, Providence, Rhode Island, April, 1962.

permit him to change."[21]

In a doctoral dissertation developed in connection with this project, Thames reported that group therapy was a positive change agent that was effective in changing family patterns of behavior of rehabilitation clients.[22]

Setting in Which the Study was Done

The Delgado Rehabilitation Center, where this research was done, had been in operation since June of 1962. This facility is a division of Delgado Junior College and was designed for intensive vocational evaluation and work conditioning of handicapped people. Established by joint agreement between Delgado Junior College and the Louisiana State Department of Education, Division of Vocational Rehabilitation, the Center's program features a combination of vocational, psychological, social and medical services. The complex evaluation program requires the joint skills of specialists such as physicians, psychologists, occupational and physical therapists, social workers, psychiatrists, vocational evaluators, music and speech therapists, and other professional consultants. Clients are admitted to the Center upon referral from the state rehabilitation agency. They are accepted on the basis of an admission staffing report made by the professionals who will work with the client while he is at the Center. Their decision is based largely on their assessment of the client's ability to participate fully in the program.

The following detailed description of the Center is abstracted from the 1970-1971 Delgado Junior College General Catalog.

> The Rehabilitation Center operates for the purpose of assisting in the vocational rehabilitation of the handicapped by functioning as a rehabilitation bridge between the period of hospitalization and/or inactivity, and the last stages of strict vocational preparation for job placement.
>
> The functions of the Delgado Vocational Rehabilitation Center program include the following:
>
> 1. The Rehabilitation Center functions as a supporting service to the rehabilitation counselor for the purpose of assisting in the vocational rehabilitation of the severely handicapped.

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[21] Ibid., p. 5.

[22] Marvin E. Thames, The Effectiveness of Group Therapy in Changing Family Role Patterns Towards Disabled Members, an unpublished dissertation, Department of Sociology, Louisiana State University, Baton Rouge, Louisiana, January, 1970.

2. The Rehabilitation Center assists in the rehabilitation process by providing a composite program of medical, psychosocial, and vocational services. These rehabilitative services are comprehensive in depth and flexible enough to meet the vocational, social, physical, emotional, and mental needs of each client.

3. The Rehabilitation Center is an effective partner, joining other community agencies in striving for the development and maintenance of a dynamic guidance for the handicapped--a program dedicated to vocational and educational growth, self-realization and actualization, and personal and social adjustment.

Vocational Services

The vocational services are divided into two major components: evaluation and conditioning. The evaluation services are conducted in seven evaluation areas: Business Administration, General Clerical, Graphic Arts, Personal Services, Technical Crafts, Industrial Crafts, Industrial Practices, and Building Trades.

Vocational evaluation refers to the process of determining a client's aptitude for training or employment. The ultimate purpose of vocational evaluation is to assess the client's capabilities and limitations in a vocational environment, thus providing rehabilitation counselors with detailed and accurate information as an effective base for counseling and guidance. The objectives of evaluation include the following:

1. To assess specific work traits such as initiative, perseverance, and dependability.

2. To determine emotional and physical work tolerance for vocational activity.

3. To measure the quality and quantity of work performance in a variety of occupational tasks.

4. To evaluate potential and readiness for vocational training or employment.

Vocational conditioning includes personal and social adjustment, vocational, fundamentals, and work conditioning activities in business procedures, graphic arts, industrial crafts, and personal services.

The Personal and Social Adjustment Area is designed to guide and assist the client in preparing personally, socially, and psychologically for participation in a job. The overall objectives of the Personal and Social Adjustment Area are based on the fact that the handicapped, whose lives have been suddenly and erratically altered or who have never lived outside of a sheltered environment, frequently possess inadequate backgrounds and inappropriate behavior patterns for competing and succeeding in work. The primary goals of vocational

adjustment, therefore, are to assist the client in developing good work habits and to enhance his likelihood of employment. The objectives of the Personal and Social Adjustment Area include the following:

1. To assist the client in developing acceptable work behavior patterns.

2. To stimulate the understanding and appreciation of employee functions and responsibilities.

3. To develop the ability and inclination to practice satisfactory hygienic and grooming habits.

4. To familiarize the client with the opportunities, requirements, and responsibilities in the world of work.

The Vocational Fundamentals Area is designed to assist those clients who have experienced failure, frustration, low academic achievement, and poor adjustment in the school. This program is flexible, so as to meet the needs of individuals with various levels of education and vocational achievement. The objectives of the Vocational Fundamentals Area include the following:

1. The development of competencies in reading instructions.

2. The development of communication skills (speaking, writing, and reading).

3. The development of competencies in basic arithmetic, particularly as it applies to the individual's vocational goals.

The Work Conditioning Area is considered the final Rehabilitation Center service before a client enters formal training or competitive employment. This specific service is designed for those clients who have completed their evaluation program but are not physically and psychologically prepared for the next step in their rehabilitation program--training or employment. Work Conditioning, therefore, assists the clients in adjusting to the demands of work in a training environment and in acquiring or regaining those vocational traits which are so vital in competitive employment. The objectives of the Work Conditioning Area include the following:

1. To increase emotional and physical work tolerance.

2. To develop or improve vocational traits such as dependability, self-confidence, and perseverance.

3. To improve the quality and quantity of work performance.

The Work Conditioning areas are organized as shops or small factory units in order to create actual working conditions. Each work station is a complete unit with the necessary supply of gas, water, air and electricity. In addition, these stations contain appropriate work

benches, equipment, and tools for specific jobs assigned. The work performed in the conditioning areas is practical and productive, rather than exploratory, thereby emphasizing commercial and industrial standards in behavior and performance as a preparatory step for employment or training.

Social Work Services

1. The social worker in the Rehabilitation Center acts as liaison between the Center, community, and other professional groups. In reaching the community, the social worker does so as a member of the multi-disciplinary group in the Center, utilizing the team approach. The social worker functions as part of an interrelated process of team activity so that community relations are approached with a design of action which has been planned and shared by the whole team.

2. The social worker is requested to participate in the case study of the client prior to preparation of the client for admission to the Center. Part of this participation is the preparation of a social study, following an interview in the home with the client and his family, which includes an evaluation of the client's personality and behavior dynamics, his role in the family and immediate environment, the family structure, and interrelationships, family dynamics and socio-economic level, the client's and the family's interpretation of the client's condition and a preliminary assessment of casework services needed by the client and his family in order to help the client move toward more effective functioning in both social and vocational areas.

3. In addition to individual casework services, the social worker assumes responsibility as group leader in regularly scheduled weekly group discussions with the clients. In the group discussions, the social worker's function is to assist and to enable clients to share problems, to give recognition to others having similar problems, to develop more constructive approaches to the handling of problems and problem areas, and to learn behavioral controls.

Music Therapy

Music therapy is the use of music to help clients achieve better social relationships in both the working situation and the community. The music activity also helps the client learn new skills or improve existing ones. Often, the music activity permits the client to get a better image of himself--his capabilities, potentialities, and self-worth. A logical area of consideration is that one's ability to maintain a job is largely dependent upon his acceptable social relationships. Music therapy plays a vital supportive role in the vocational training experience which can help strengthen the vocational future of the individual.

Medical Services

The Medical Department is under the supervision of a physician who is responsible for directing all medical services and medical personnel. The services offered are as follows:

1. Medical Supervision:

   a. The medical director reviews all of the medical information in the counselor's case record before staffing.

   b. The medical director participates in all Admissions Staffings except those in which it is more appropriate for one of the other medical consultants to attend. He discusses the medical aspects of the case and develops the medical service plan for each client.

   c. The medical director examines the client, usually during the first week the client spends in the Center. If indicated, additional examinations are made after evaluation and testing procedures have been completed or, in some instances, this initial examination may be deferred pending the completion of such testing.

   d. The medical director interprets medical information and precautions to be observed regarding the client to other staff members.

2. Medical Consultation:

   Appropriate medical specialists may be made available for consultation with personnel of the Center on specific cases, either by bringing the medical specialist to the Center, or by having the client visit the specialist's office.

3. Psychiatric Consultation:

   The psychiatric consultant may be requested by the medical director to review the counselor's case record of the client prior to Admissions Staffing. The need for psychiatric consultation may be determined by this consultant after he has reviewed the record, or such consultation may be requested by the medical director to determine whether there is a mental and/or emotional involvement affecting the rehabilitation program.

4. Physical Therapy:

   Physical therapy is the application, on medical prescription, of physical agents and the instruction of the clients in the therapeutic exercises to restore, increase, or maintain at maximum level the functional capacity of the musculoskeletal system, its articulations and associated structures.

5. Occupational Therapy:

Occupational therapy is the instruction and supervision of a client in medically prescribed activities utilizing creative, manual, and industrial arts media and techniques to assist in the physical and mental restoration of disabled persons. Occupational therapy may be diversionary, psychiatric, or orthopedic. Diversionary occupational therapy is not part of this Center's program. Psychiatric occupational therapy may be helpful in stimulating group activities. In the majority of orthopedic cases, the goal is increased muscle strength or range of motion in joints resulting from the performance of purposeful, repetitious acts.

6. Speech Training:

Speech training is the instruction and supervision of patients in exercises designed so as to help them overcome deficiencies in speech resulting from any type of disability. This may include speech pathology for the diagnosis of speech disorders.

7. Audiological:

The service of audiologists is used in diagnosing and treating deficiencies in hearing and the results thereof, including the prescription of prostheses, lip reading, auditory training, and speech correction and development.

Delgado Junior College

Delgado Junior College, of which the Center is part, began operation in October of 1909 as a result of a generous bequest of a wealthy sugar planter, Isaac Delgado, to the City of New Orleans. From this beginning, the college has placed heavy emphasis on training for occupational skills with a large portion of the student body composed of the physically handicapped and socially and economically disadvantaged. The campus is located in the heart of the City of New Orleans on 57 acres. The divisions of the college include a trades division, a technical division, a junior college division, a continuing education division, and the rehabilitation division. The trades division offers courses in cabinet making, carpentry, culinary arts, electricity, machinist, painting and decorating, plumbing, sheet metal and welding. The technical division includes courses in aircraft maintenance, drafting, horticulture, mechanical equipment, radio-television, and visual communications. The junior college offers courses in Arts and Science, Business Administration, and Engineering Technology. The continuing education division offers preparatory apprenticeship, and adult education courses along with many courses offered through the other divisions in the night school program.

Delgado Junior College is a three campus structure with approximately 4,500 students. In addition to having multi-campuses, Delgado considers itself unique in that it provides the instruction mentioned above and has an open admission policy. Based on the belief that

tests are of doubtful value in identifying students who have a potential for college work, the college admits educationally and socially disadvantaged students who have no other place to go. This policy dates back to its early history as a trades and technical school and faculty at Delgado have continued to believe that the best test of a student's ability to do college work is college work itself.

Criteria for admission are set up by each division on the basis of general education guidelines and individual accomplishments. Clients who attend the Rehabilitation Center generally are given preferential treatment when application is made to attend the other divisions of the college.

Family Group Therapy Project Staff

During the three year grant period, the staff was changed as project needs changed, with the project director, the research consultant, and the psychiatric consultant remaining with the project since its origin. The project director was employed part-time to supervise the data collection, conduct one therapy group, coordinate the other therapy groups, handle various personnel problems, implement the suggestions of the research consultant, and participate in the final writing of the report. The project director had over ten years experience in rehabilitation and psychiatric settings.

The research consultant was responsible for the research design, analysis of the data, and participated in the final writing of the report. His emphasis was on obtaining data that would fit the original model as close as possible with as little contamination as possible. This was facilitated by dealing only with the personnel involved in the project and not the clients or families on whom data was collected. The research consultant had thirty years experience as a social worker, administrator, and research teacher.

The psychiatric consultant was consulted on matters relating to group therapy content and various technical questions relating to client participation in therapy groups. During the design phase he added knowledge relating to group size, content and composition. Later on he worked directly with the group therapist on an "as needed" basis. Through conferences with the project director, problems that were encountered with attendance and participation were alleviated. The psychiatric consultant has functioned in this capacity since the Center began operation in 1964 and has been practicing psychiatry for fifteen years.

Two group therapists were employed in addition to the project director to lead alternate therapy groups. A discussion of these therapists and their techniques can be found in Chapter IV.

The primary interviewer held a master's degree in social work and had two years experience in social work in a rehabilitation setting. The other interviewer had one year of formal social work training and had six years of experience in juvenile and adult probation work. Both interviewers were trained in using the scales necessary in the follow-up interviews.

CHAPTER II

BACKGROUND AND THEORY OF GROUP THERAPY WITH RELATIVES

Historical Development

Group psychotherapy became popular during and after World War II when treatment personnel were in short supply and military patients with psychological difficulties were numerous. The early origins of the technique can be traced back to a Boston physician who developed a new method of treatment for patients with psychosomatic ailments which he referred to as the "class method."[1]

Interest in small groups cannot be confined to this period. Early Greek philosophers, thinkers of the Renaissance, scholars of Western Europe in the sixteenth, seventeenth and eighteenth centuries were all interested in the use of small groups as a tool for understanding the basic behavior of man.

The history of small group research may be said to have begun in the waning years of the nineteenth century by Tarde and LeBon in France who were concerned with pathological groups; and by Simmel in Germany, and Cooley, Mead, and Ross in America who were investigating the nature of social interaction processes, two persons dyads as the basic social unit, and the family as a primary group.[2] The concern of the times was a search for basic assumptions and terminology; a search for answers to questions about man's origin and his basic nature.

Emile Durkheim's work on the division of labor has relevance to small group organizational theory with his emphasis on concepts such as role differentiation and the problem of equilibrium.[3] He states

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[1]Richard R. Korn and Lloyd W. McCorple, Criminology and Penology (New York: Holt, Rinehart and Winston, Inc., 1964), p. 567.

[2]Joseph E. McGrath and Irwin Altman, Small Group Research: A Synthesis and Critique of the Field (New York: Holt, Rinehart and Winston, 1966).

[3]A. Paul Hare, Edgar F. Borgatta, and Robert F. Bales, Small Groups: Studies in Social Interaction (New York: Alfred A. Knopf, Inc., 1965).

that happiness is not based, as the utilitarian theorist would have it, on gains in economic productivity and resulting higher planes of living. Human beings have a limited capacity to enjoy economic goods. He points to the contentment of primitive societies and to the relative infrequency of suicide and neurosis to support his hypothesis that interaction within small groups is a source of contentment.

In his early writings, Pitirim Sorokin synthesized two reasons why human beings established groups: One was the lack of sufficiency of the individual; the other was the invaluable advantages which group life offers "in comparison with life in isolation, for the survival of human individuals and the human species, for the development of their creative potentials and for their fulfillment--on this planet."[4] Although Sorokin was apparently addressing himself to the development of society, these same principles can be applied to the development of the primary group and to the research done in primary groups that has developed to this date.

Cooley and Mead bridged the gap between the macro- and micro-functionalism schools of sociology. The former was concerned with the organization of total societies while the latter dealt more with the field of social psychology and the relationship of the individual to small groups and small groups to each other. Cooley and Park applied earlier concepts of classifying societies as sacred or secular, mechanical or organic, gemeingshaft or gesellschaft to small groups which he called primary and secondary.[5]

Primary groups are made up of persons whom the individuals know intimately, with whom he comes in contact freely and frequently, and toward whom he has strong attitudes of love, fear, respect, and hate.

Cooley further emphasizes the importance of primary groups, calling them the nurseries of human nature in the world about us and stressing their permanancy and universality.

Secondary groups are described by Bales as "made up of persons whom the individual knows but slightly, with whom he only occasionally comes in contact and toward whom he holds no strong attitudes."[6]

Primary groups give the individual his earliest and most complete experience of social unity; they reflect the spirit of the larger

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[4]Pitirim Sorokin, Society, Culture, and Personality: Their Structure and Dynamics (New York: Cooper Square Publisher, Inc., 1962), p. 369.

[5]Arnold M. Rose, Sociology, the Study of Human Relations (New York: Alfred A. Knopf, 1965).

[6]Bales, et al., Small Groups: Studies in Social Interaction, p. 16.

society and provide the individual with the closeness and tension that he needs to function in society. Lee, in an appraisal of Cooley's definition of primary group, states that "one could easily say that the major cause of the mushroom growth of many devices and problems in the cities is the decline of primary groups and the subsequent impairment of human nature."[7] Instead of twisting Cooley's original concept to suit the current phase of society, might it not be more fruitful and meaningful to consider what has happened and is still happening to the primary group while analyzing areas of human behavior of social disorganization? This project follows this suggestion by studying individual and family change.

From this early awareness of man's functioning in primary groups in the early 1900's, social scientists began to be concerned with group dynamics and group interaction. Beginning with Terman's study on leadership functioning in 1904, Cartwright and Zander cite five studies on leadership subjects ranging from the unique behavior of leaders in the armed forces to the characteristics of supervisors who promote productivity in work groups.[8]

After a careful review of these studies, the following findings are summarized:

1. There is a formal and an informal structure within groups.

2. The function of leadership is a valuable one and the type and quality of leadership affects the behavior of the group.

3. Highly productive groups may be indicative of a leader who is meeting the needs of the group. Leadership might also be a function that meets the needs of the individual.

Group Dynamics and Group Interaction Research

Group therapy attempts to therapeutically change several individuals simultaneously. Although some forms of group therapy concentrate on treating one individual in the group, there is usually concentration on different individuals in a rotated manner. Encouraged participation and interaction assists in aiding in the treatment of each individual in a group.

S. R. Slavson, founding president of the American Group Psychotherapy Association, has emphasized the importance of the selection of group members on the bases of symptomatology, motivation for treatment,

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[7] S. C. Lee, "The Primary Group as Cooley Defines It," Sociology Quarterly (Winter, 1964-1965), 35.

[8] Dorwin Cartwright and Alvin Zander, Group Dynamics, Research and Theory (Evanston, Illinois: Row, Peterson and Company, 1953).

and intelligence.[9] It is obvious that in a group setting, individuals with different socio-economic backgrounds, emotional tolerance, intellectual capacity and cultural complexities will have different effects upon each other. These different patterns tend to arouse either positive or negative feelings in the individual group members. This interchange of feeling brings about catharsis, insight, transference relationships and reality testing that are the vehicles for change in behavior.[10] Frank and Powdermaker list five methods of group psychotherapy.[11]

1. Didactic Groups: These groups are based on educational material presented by a group leader. The basis for the emotional and interactional learning that takes place in the group is the educational material that is presented.

2. Therapeutic Social Clubs: These are clubs that are operated according to parliamentary lines; they elect their own officers, collect dues, and both plan and carry out organized social activities. The main purpose of these groups is to increase their members' skills in social participation as a means of interrupting the vicious circle in which they had been caught; i.e., damaged self-esteem, social withdrawal, and further damage to self-esteem.

3. Repressive-Inspirational Groups: These groups lay their chief stress upon building morale through strong group identification and the arousal of positive group emotions. They utilize inspirational talks, relaxation exercises, group singing, or recitations and testimonials.

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[9] S. R. Slavson, Analytic Group Psychotherapy (New York: Columbia University Press, 1950). The present research followed traditional methods of selecting as suggested by Slavson but used a random method of assignment as described in the methodology chapter. Both were possible as clients that came to the Center had various types of disability.

[10] For a detailed discussion of each of these vehicles of change see: Nathan W. Ackerman, "Psychoanalysis and Group Psychotherapy," Group Psychotherapy, Vol. III (1950), 204-215; S. H. Foulkes, Introduction to Group--Analytic Psychotherapy, (New York: Grune and Stratton, 1948); H. Spotnitz and B. Gabriel, "Resistance in Analytic Group Therapy," Quarterly Journal of Child Behavior, II (1950), 71-85.

[11] Silvano Arieti (ed.), "Group Psychotherapy," American Handbook of Psychiatry, Vol. II (New York: Basic Books, Inc., 1959), pp. 1362-1374.

4. Psychodramas: The chief participants in a therapeutic psychodrama are the protagonist, the director and the auxiliary egos. The protagonist presents a private or group problem: the auxiliary egos help him to bring his personal and collective drama to life and to be corrective. Meaningful psychological experiences of the protagonist are given shape more thoroughly and more completely than life would permit under normal circumstances.

5. Free-Interaction Groups: The method of conducting these groups and the type of content emphasis varies according to the therapist's theoretical orientation. All forms of free-interaction groups encourage interaction in an atmosphere conducive to a free and honest expression of feelings. The interactions are discussed by the members of the group and the therapist with a view toward exposing and correcting pathological forms of behavior.

These types of group therapy correspond closely to various theories of group psychotherapy. Despite variations in technique and emphasis, all forms of group therapy have underlining principles which are similar, and all forms tend to work toward similar goals. They all try to bring about a change in behavior that is labeled pathological and also attempt to provide an atmosphere conducive to personality and social change.

Powermaker and Frank list four elements that are present in all forms of group psychotherapy.[12] The first element is the element of support. In the group, patients' preoccupations with their own problems often limit the support they can give each other, but the group has supportive potentialities not available in individual therapy. Contributing to this element of support present in a group is the acceptance of individual group members by other members in the group, a lessening of feelings of hostility when identification processes are evident, and a diminishing of feelings of difference and isolation. The second element is stimulation. Patients are encouraged to express their responses, both pathological and normal. Self-defeating attitudes and inappropriate responses are made clear to the patient by the reactions he receives from the therapist and other group members. Elements that provide stimulation in group therapy are contagion of emotion, the opportunity to relate one's own problems with the problems presented by others, competition for the interest of the therapist, struggles for status in the group, the stimulating effect of being brought into contact with persons of different backgrounds and outlook, and transference reactions to other members of the group. A third element is verbalization and labeling. This element consists of putting feelings into words. The free give and take of group discussions and the efforts to make one's position clear to others are powerful incentives to a verbalization which may prove to be therapeutically useful. A fourth element is practice. This element allows the patient to try out old ways of behaving and compare them to new ways of behaving.

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[12] Ibid., pp. 1363-1364.

Reinforcement by group members and therapists encourage adoption of new patterns of behavior that are not comprised of self-defeating and self-destructive elements.

The present research study combined the use of all of these elements of group therapy, with the didactic type group and the free-interaction type group being used more frequently. (This is discussed in more detail in Chapter IV.) The theoretical orientation led to an educational experience with opportunity to react to the educational material presented, along with a free discussion of the feelings developed by group members toward the material presented and toward the rehabilitation clients.

CHAPTER III

METHODOLOGY

The methodology of this study followed a somewhat formal experimental design, with control and experimental groups being selected by random sampling as clients entered the Center, with the experimental variable of group therapy being introduced into one group of relatives and withheld from the other, and with differences in various criterion variables considered to measure the consequences of group therapy on rehabilitation potential being tested for significant differences after therapy. Tests were made of how well the experimental and control groups were matched at the time of selection, and of how similar their course of treatment was on certain other variables than group therapy that were considered likely on empirical or theoretical grounds to influence the outcome. Criterion variables to evaluate the influence of group therapy were of two types: those reflecting the client's inferred ability to profit from vocational training as shown by his progress at the Rehabilitation Center, and those reflecting the client's ability to profit from training or on-the-job placement approximately one year after leaving the Center as shown by his adjustment and vocational success as determined by a follow-up interview.

Selection of Experimental and Control Groups

This study began April 1, 1968, when relatives of all new clients entering the Center were referred to the principal investigator for a screening interview. The purpose of this interview was to ask relatives if they were willing to participate in group therapy sessions and to achieve as much motivation as possible among all relatives for this participation. The original design called for all clients whose relatives expressed a willingness to attend group therapy sessions to be assigned alternately to the experimental or control group. This plan was followed for approximately the first eight months, when an analysis of relatives' attendance at therapy showed considerable variation. A decision was then made to screen all relatives not only for their willingness to attend sessions but for their interest in doing so. Experience indicated that many relatives had said they were willing to participate in group therapy but had little interest in it or intention of participating, and in fact some were prohibited from attending sessions because of working or family situations. This more careful screening plan meant that a larger proportion of relatives were rejected for participation in this project but attendance of relatives at therapy sessions improved.

Assignment of relatives and clients to both groups continued until August 15, 1969, when a total of 40 clients and 40 relatives had been assigned to the experimental and control groups respectively. Assignment of relatives and clients to the experimental group as "extras"

continued, however, until December 10, 1970 so that there would be enough relatives in the experimental therapy group to permit group therapy to continue as clients left the Center (as each client left the Center, his relative also left the group). These "extra" relatives and clients were not included in the analysis except for three who were substituted for relatives of earlier assigned clients who did not participate in therapy. (See page 22)

The 40 experimental and 40 control clients in the final sample came from a population of 209 clients who went through the Center between April, 1968 and September, 1969. Relatives of about half of these 209 were not interviewed because there was no relative in commuting distance, no relative available, or because an interview was refused, as shown below.

Relatives not in commuting distance	48
No relatives or friends available in client's environment	27
Relative refused initial interview	17
Client dropped out of Center first week before relative could be contacted	13
Relatives interviewed	104
Total	209

The 24 relatives rejected after an interview from the 104 interviewed were excluded mostly because working hours conflicted with group therapy sessions.

Working hours precluded participation	14
Rejected initial interview (though earlier had indicated acceptance)	5
Rejected because of low motivation, or pathological behavior	5
Total	24

The group therapy sessions began as soon as five relatives had been assigned to the experimental group. This was on May 3, 1968, approximately five weeks after the study began. Therapy continued for from 16 to 44 weeks. (See Chapter IV) Relatives in the control group received no group therapy, although they, like the experimental relatives, were eligible for and received various other services from the Center.

To control for any differences at the beginning of the study between the experimental and control clients, and to control for differences

in the services received by relatives and the clients at the Center that might influence the criterion variables, the design included plans for obtaining data on client and relative characteristics and on other variables designated as "intervening variables" which represented other therapies and services at the Center. Analysis was planned to study whether the experimental and control groups were different on these client and relative characteristics and the intervening variables.

Extraneous and Intervening Variables

Data on client characteristics, obtained when the client was assigned to one of the two groups, included age, sex, religion, disability, the evaluator's rating after three weeks at the Center, and work area assigned. This data was available in the client's case records kept by the Center and was abstracted on forms developed for this project. In interviews with relatives, information was obtained on relatives' ages, distance from the Center, education, occupational level and motivation for therapy as seen by the interviewer. This was obtained before relatives were assigned to the experimental or control group. The intervening variables other than group therapy that were considered likely to influence the outcome included the kind and the intensity of speech and hearing therapy, occupational therapy, physical therapy, music therapy, instruction in vocational fundamentals, the extent and regularity of social casework and group work, vocational counseling, participation in personal and social adjustment, psychotherapy, psychological and psychiatric treatment, the length of time the client stayed at the Center, the vocational work areas in which he was placed for evaluation during his stay at the Center, and the recommendation made by the staff for the client at the end of his stay at the Center (i.e., whether he was sent to a job, placed in an on-the-job-training situation, recommended for school, or permitted to go home).

Schedules suitable for collecting the data above were developed at the beginning of the project and this data on extraneous and intervening variables was collected periodically at the eighth, sixteenth, and final weeks or at other appropriate times when necessary. The schedules were completed by persons in the various therapies and services who had actually provided services to clients. Because of the complexity and the size of the Delgado Center, the persons who completed these forms generally did not know which clients were in the experimental or control group. This particular lack of knowledge, together with the fact that this data were obtained at the time when general knowledge of the client's situation was fresh in the minds of the persons who completed the schedule, is considered to increase the likelihood that the material obtained was valid. Copies of these schedules are in Appendix A.

The Experimental Variable

The therapy sessions were based on the literature previously cited that noted the influence of significant others in the client's life. The general hypothesis that guided this study was that as changes were

made in the client's immediate family relationships by means of group therapy, particularly those changes that enhanced individual experience and productivity, his (the client's) social, emotional, and vocational functioning would be directly affected in a positive way. With clients living with relatives on a twenty-four hour basis, it appeared that the influence on clients from changes in relatives might be considerably greater than the changes in the client himself resulting from a one hour weekly group therapy session that he might have had personally.[1]

Chapter IV describes the therapy in detail. Therapy was basically interactional in nature and relatives were expected to interact with each other while the group leader interpreted their typical reactions to situations and how these might influence the client.

The original design called for relatives of clients to stay in therapy for the length of time the client stayed at the Center. Analysis was to be aimed at determining the influence on clients from these various periods of exposure to group therapy. It also had been expected that by carrying out the therapy groups for approximately 48 weeks, the relatives of at least 40 clients would have had an opportunity to experience group therapy for a minimum of 16 weeks. A somewhat reduced rate of intake at the Center, however, made it necessary to continue group therapy for a total of 88 weeks instead of 48 weeks (or from May 3, 1968 to December 17, 1970 instead of from April, 1968 to April, 1969) in order to reach this goal. On this latter date (December, 1970), in order that the project would not go on indefinitely, and after adequate preparation of relatives for the termination, therapy was ended.

Although six experimental clients and six control clients remained at the Center for a number of weeks after therapy was discontinued, continuing therapy for these clients was not possible with funds available.[2]

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[1]This particular idea, however, was not tested and is a possibility for later research. An experimental group could be set up where clients receive group therapy and compared with one where relatives receive group therapy as in this study.

[2]In the final analysis, three clients whose relatives had had a chance to experience therapy for only 12 weeks but who had attended several sessions were used to replace three relatives of other experimental clients who had been assigned to therapy but who had not attended at all. This change was made so that relatives of as many clients in the experimental group as possible had as much exposure to therapy as possible.

The Criterion Variables

The criterion variables that were considered to measure progress at the Rehabilitation Center are referred to as "rehabilitation progress variables" or "progress variables" while those referring to the client's adjustment and vocational success a year after leaving the Center are called the "adjustment variable." This in no way questioned the idea that rehabilitation is a continuous process which continues for a considerable period after clients leave a rehabilitation center but was an attempt to provide a convenient distinction for discussing these variables.

Rehabilitation Progress Variables

The major set of variables used to study rehabilitation potential while the client was still at the Center were the evaluator's ratings of clients. These evaluations were made on ten rating scales considered to measure (1) personal appearance,[3] (2) application of instruction, (3) learning and retention, (4) work traits such as organization, initiative, and perseverance, (5) work tolerance, (6) safety consciousness, (7) cooperativeness, (8) attitude to vocational objective, (9) quality of work, and (10) quantity of work.

These scales had been developed at Delgado during a period of three years preceding this study, and at the beginning of the study had been shown to be sufficiently reliable so that two independent raters could agree 95 per cent of the time within one scale point on the ten point scale. They had also shown sufficient validity to discriminate between clients who dropped out of the Center and those for whom various rehabilitative procedures were recommended at the time of the client's departure. During the course of this study further tests of reliability and validity of these scales were made and these tests are reported in Chapter VII (Comparison of the Experimental and Control Group on the Progress Variables).

Evaluator's ratings of all clients at the Center were routinely made and filed in the client's case record on a weekly basis. Thus the ratings were available as criterion measures without any special effort on the part of the researcher or without the knowledge of the evaluator regarding which clients were in the experimental or control group. To chart the progress of clients during the study, ratings were obtained at the third week, eighth week, sixteenth, and final week.

The third week ratings were selected as baseline data to determine (with other client characteristics mentioned earlier) how well the two groups were matched at the beginning of the study. The third week was selected as a time when the evaluator had known the client long enough to make valid ratings of his performance, but as representative of a period when the client probably had not been at the Center long enough

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[3]The scale on personal appearance was broken into three subscales, so that the total number of ratings was twelve.

for the Center to have made much impact on him or change his behavior as shown by ratings on the scales. The eighth week was selected in the event a trend line was to be determined. Because more clients remained at the Center for more than 16 weeks than for any other period, ratings at this period were selected as the chief criterion variable to measure rehabilitation potential at the end of the evaluation period. The difference between these final week ratings and the ratings at the end of the third week (referred to as "change ratings") were the chief measure of whether group therapy with relatives made a difference in client behavior while the client remained at the Center.[4]

Adjustment Variables

Though certain data on the adjustment variables (see page 25) was obtained on all clients, data on different variables was obtained to measure the client's post-Center adjustment and vocational success, depending on whether the client was working, in an on-the-job-training situation, at school, or at home at the time of the follow-up study approximately a year after he left the Center. Validity of data obtained rests on two methodological devices. The first was an attempt to prevent the interviewer from knowing whether she was doing a follow-up on an experimental or a control client. The second was the use of an interviewing schedule which required no judgements by the interviewer, but instead asked for direct answers from clients, teachers or employers.

The follow-up study was carried out by two skilled interviewers. The interviewer began the follow-up study by locating and interviewing each client to learn if he was at work, at school, or at home. Immediately upon opening the interview and explaining that its research focus was to learn how former Delgado clients were getting along, the interviewer asked the client not to mention whether or not his family had been involved in group therapy. Explanation of the design of the study was used to help clients understand why this should not be discussed. Later, when family members of clients were contacted, the same caution was observed. Although the interviewer noted that occasionally families commented at the end of the interview

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[4]When therapy was discontinued in December, 1969, there were six experimental and six control clients at the Center. Final ratings were obtained as these clients left the Center, except for three clients who were still at the Center on April 1, 1970. For these three clients, two of whom were control and one of whom was experimental, final ratings were obtained as close to this date as possible, and this completed the collection of the data on the rehabilitation progress variables. This date of April 1, 1970 was selected so that data collection would not go on indefinitely, because all of these clients had been at the Center more than 16 weeks, and because this was two years from the date the study began.

about being in group therapy (and usually with positive feelings), she reported that no situations occurred where group therapy was mentioned before data was obtained. The schedule used in this interview is in Appendix C.

For all clients, the follow-up included data on who was present for the interview, with whom the client was living, and the number of times the client had seen the counselor or other rehabilitation personnel since leaving the Center. Each client was asked to complete a "Family Understanding" and a "Home Satisfaction" Scale, both developed for this study.

If the client was found to be working, information was obtained on variables related to his work. These included the total number of jobs he had held since he had left the Center, whether his current job and previous jobs were full- or part-time, the salary earned and length of time he had been on each job, the client's satisfaction with his vocational progress, his satisfaction with his current earnings, his expectations of future earnings, and his ranking of various factors that might have influenced his vocational progress (such as his experience at the Center, his work with the counselor, the attitudes of his family, and so forth). The client was then asked to complete the Minnesota Scale of Job Satisfaction[5] and the client's current employer was interviewed without the client being present and asked to complete a set of rating scales similar to those previously used by the evaluators at the Center. Since these ratings had been developed by rating the client in Delgado's work areas in a situation very much like an actual job, including the social situation of the job, they were considered valid for use for this purpose by employers.

If a client was in school, information was obtained in the interview with the client on the type of current and past schools he had attended, and he was asked for his evaluation of the success of his overall program. Each client was asked to complete a "School Satisfaction Scale" developed for this study and modeled on the Minnesota Satisfaction Scale. If the client had been in school but left, the reason for leaving was obtained and information was obtained on his activities after school. The interviewer then contacted the school or schools and obtained the client's grades and an evaluation from his faculty advisor about his social and overall adjustment.

Each client who was at home (not working or in school) at the time of the follow-up study, was asked to provide information on his relationship with his family and what he thought they expected of him. Information on the reason why he was not working or in school completed the interview for this type of client.

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[5]The Minnesota Scale of Job Satisfaction, 1967, University of Minnesota Studies in Vocational Rehabilitation, XXII, by David J. Weiss, Rene V. Dawis, George W. England, and Lloyd H. Lofquest.

Analysis of Data

Analysis of data focused on determining whether there were differences between the control and experimental group of clients after the relatives of the latter had group therapy, differences that could not be considered due to differences prior to group therapy or due to the differences in other kinds of treatment they had received concurrent with the relatives' group therapy experiences.

To account for differences in therapy experiences by relatives within the experimental group, three comparisons were made as stated in all of the following analyses:

1. First was a comparison of all experimental clients with all control clients. For the rehabilitation progress variables, the experimental N was 39 and the control N was also 39. For the adjustment variables the experimental N was 36 and the control N was 35.[6]

2. Second was a comparison of those experimental clients whose relatives had participated in at least one therapy session (referred to as exposed experimental) with all control clients. For the rehabilitation progress variables the experimental N was 33 and the control N was 39. For the adjustment variables, the exposed experimental N was 32 and the control N was 35.

3. Third was a comparison of the experimental clients whose relatives had participated in five or more therapy sessions (referred to as maximum exposed experimental) with all control clients. For the rehabilitation progress variables the experimental N was 22 and the control N was 35.

All tests of difference were considered significant if "t" values or standard errors were significant at the five per cent level. In some cases significant differences at the ten per cent level were reported.

The following tests were made:

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[6]There were only 78 clients (39 in the experimental and 39 in the control) in the final sample, instead of 80 (40 in each group) as originally planned because in each group it was found that one client had been kept on the Center rolls although not actually in attendance at the Center. Each of these clients had been suspended from the Center for anti-social activity and though they were expected to return, they did not do so. In the follow-up part of the study five clients could not be located. This reduced the number of all experimental by three, and the exposed and maximum exposed by one each. Two control clients were not in the follow-up because one client had a mental illness and one completed only part of the follow-up interview.

Tests for significant differences in client characteristics and relative characteristics at the time the clients were assigned to therapy (referred to as identifying variables) were made by means of the standard error of proportion or t test of differences in mean. Where differences were found, correlations were computed with criterion variables to determine if these variables significantly influenced the criterion variables.

Tests for significant differences in the intervening variables were made by means of the standard error of proportion or Chi Square. Where differences were found, correlations were again computed with criterion variables to determine if these intervening variables significantly influenced the criterion variables.

The characteristics of relatives and how they participated in therapy was determined for the various experimental groups.

Tests for differences in means of evaluators' ratings at the third and sixteenth week and for changes from the third to sixteenth week ratings were made by means of t tests.

Tests for difference between the various adjustment variables were made by means of the standard error of proportion or t test.

The reliability of all instruments was determined as far as possible by using the split-half method.

CHAPTER IV

THE THERAPY

The group therapy portion of this research project covered a 19-month period beginning on May 3, 1968, and continuing until December 17, 1969. Three therapists were involved in the project, each of whom had a different background of experience and training in the field of social work. To develop motivation for participation in the therapy groups, each used a slightly varied approach.

The therapist of group one and the research assistant interviewed every family in their group. The interview was directed toward bringing to the surface feelings the family members had about the client and how their feelings played an important role in the client's rehabilitation. This was done by encouraging the parents or relatives to discuss home activities, previous attempts to alleviate the client's problems, and goals they had for themselves and the client. The families were told what they could expect to receive from the group sessions, including knowledge about the clients' performance at the Center, didactic information about different disabilities, and knowledge relating to problem areas other parents and/or relatives had dealt with. If the parents were able to become introspective about the discussion of these topics, they were told that they would be contacted when the groups began or when there was an opening in a therapy group.[1]

The therapist of group two used similar techniques but did not use the research assistant. In an attempt to diminish contamination that might result from intensive contact, since he worked as a social worker in the Rehabilitation Center, he was careful not to have clients in his group that he also worked with in his caseload. This therapist was also more selective than the other two therapists in selecting clients' families that were motivated for attendance.

The therapist of group three had no part in selecting his clients. They were selected by the research assistant alone following the same pattern as discussed for group number one.

From the beginning of the project, regular attendance of group members at the group therapy sessions was a problem. Each week, every

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[1]The research assistant's (a young woman with a BA degree in education) participation in this phase was to acquaint her with the interviewing techniques necessary to motivate people to attend group therapy. Later on she performed this function alone for all the families that participated in group number three.

member of the group was sent a card reminding them of the meeting time. When attendance of a particular family was poor, the research assistant called to remind them of the meeting. If this produced no results, the group therapist called the person who was not attending to determine the reason for the lack of participation. When the therapist was convinced that the relative was no longer going to attend, another family was brought into the group.

All three therapists tried different therapeutic techniques to enhance a higher return rate at each meeting. Didactic material was presented on topics related to different illnesses, reading material was handed out and discussions surrounding reasons for poor attendance were initiated. The therapist operated on the assumption that any technique that increased involvement of members in the therapy sessions was beneficial to further participation in therapy.

Work With Group One

In group one, the initial sessions were small with only three or four people attending the initial four sessions. These people, however, formed a nucleus for further development of the group and one family maintained attendance at the group during the entire life of this group. As this nucleus formed, the desired introspection developed and the group members began to discuss how they felt about the clients and themselves. At the sixth and seventh sessions new members were brought into the group. In group one, as in all three groups, when new members were brought into the group, about 30 to 40 minutes of the group was taken up with discussions about why they were there and what type of problem the spouse or child of each had. At the tenth and eleventh group meetings, the practice of letting each relative know what was happening to his or her spouse or child at the Center was initiated and continued throughout the remaining 34 sessions in group number one. This information was obtained by the research assistant who talked to each client's evaluator during the week. At first this material was typed and left for the therapist. Later, at session twenty, the research assistant joined the group as a co-therapist. The therapy notes indicated that at the time the co-therapist joined the group, different family members were assuming this role.

In group session twenty-one, one family brought in a movie showing their son before his accident. This precipitated considerable discussion about extent, types and duration of illness and/or disability. From this session to termination, a cyclic progression like that discussed earlier presented itself again. The one major trend that held throughout the entire 44 sessions was more attention directed toward parental solidarity in handling problems presented by their son or daughter. Members who had a spouse attending the therapy sessions were able to identify a similar dependency problem with their respective spouses.

Termination was handled almost weekly in the group sessions as members dropped out. When old members dropped out, new members were added thereby forcing the group members to regularly deal with the dynamics of assimilation. Attendance at the group was directly related to

the client's attendance at the Center. Most members knew when they would be terminated from the group as they knew the probable length of time the respective spouse or child would spend at the Center. At every group meeting there was always some discussion concerning what the client and his family would do after they left the Center. This group terminated in April, 1969 after stopping during Christmas 1968, when clients were not in the Center.

Work With Group Two

The second therapist began his group on December 17, 1968, and held 16 sessions, the last one ending on April 22, 1969. This group was composed mostly of families who had a teenage son attending the Center and their feelings about the client was the beginning point of the therapy session. The selection process and the selection of a specific problem on which to begin the discussion set the tone of a more controlled group process than in group number one. An example of this is the following comment made by the worker in session number three relating to the level of group interaction and participation; ". . . The worker interpreted to the group that we had all gotten to know each other better and that we had gone through most of the preliminary 'polite' kinds of conversation and that perhaps what was bothering us tonight was that it was time to get down to more serious discussions concerning ourselves, our relationships to each other, and our relationships to the clients whom we have come together to discuss."[2]

Attendance was good for the first six sessions but became less regular for the remaining ten sessions. The therapist cited member problems of employment, illness, and transportation. He stressed the significance of attendance in all group meetings and sent personal letters to members who did not attend regularly.

Termination was handled in the same way as previously discussed in group one but with the major exception that the therapist was terminating his employment with the Center. To prepare for his leaving, no new members were added to the group as older members left the Center, and the remaining two members were transferred to group one when he resigned.

There was a decrease in the number of clients accepted into the Center from April 22, 1969 until July 9, 1969 and the clients who did enter the Center were placed in group one or held until group three was started on July 9, 1969.

Work With Group Three

Group three began on July 9, 1969 and after 23 sessions was terminated December 17, 1969. The core group was formed after four weeks as in group one, and was based on the common theme of having a son or

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[2]This, and other quotations in this chapter, are from the various therapists' notes.

daughter attending the Center as in group two. The therapist provided each member with a progress report on how his or her spouse and/or child was doing at the Center until the group members focused on the theme of "how do you handle a child with a disability but, more important, how do you handle your own feelings about it?" In the initial nine or ten weeks, group meetings were largely on an intellectual level, but after this period, members were able to talk about their own marital problems, adjustment problems, and their own anger and guilt about their children. The theme of guilt and anger occupied most of the attention of the group in the later sessions. The therapist noted that "the end result of these discussions of anger and guilt was improved parent-child relations and less anxiety in the parents." In contrast to group two, group three was characterized by a lack of control and techniques of support and interpretation were used frequently. The therapist felt the group was successful in that it gave the members "an opportunity to be informed about their children's progress in the Center, it gave them a better understanding of various disabilities, and it gave them the opportunity to express and deal with their feelings about having a disabled child."

Two recommendations made by this therapist were that the groups be larger and that they be called "parent discussion groups." Attendance was a factor in the first recommendation since not all members assigned to the group attended regularly even though efforts were made as described in group one and two above. The percentage of attendance may have increased if more members were assigned to the group since absences would have been less obvious. The second recommendation was based on the therapist's belief that the word "therapy" made some people cautious about attending the group meetings.

Termination in this group was handled as in group one with the one remaining client and his family leaving the Center shortly after the termination of the therapy group. A verbal summary of the activity of each session was given by the therapist at the end of each session and this facilitated termination.

In summary, each therapist had the same goal but followed the principal of equifinality and used different paths to achieve the same goal. The goal was to increase communication and understanding between family members. The first therapist had a more general common ground for beginning, that being that every member of the group had someone attending the Center. Sessions were characterized by an explorative openness with later efforts being made at education and information-giving processes in conjunction with meeting the client's other needs. Group two was more structured and selective and there was higher attendance during the initial stages. This technique did not work as well as the sessions progressed, though there may have been some influence on attendance because the therapist knew he was leaving soon. Group three had difficulty getting started but formed a hard core group and moved well according to the therapist. From these observations, it would appear that further groups in this setting should include a rigid selection process with more structure in the beginning, moving gradually into a more open free interaction group if they are to be of maximum effectiveness.

CHAPTER V

COMPARISON OF THE CONTROL AND EXPERIMENTAL GROUPS PRIOR TO THERAPY

Data obtained from the records of the Center show that the sampling method successfully matched[1] the experimental and control group on four client characteristics which experience and theory indicated might make a difference in outcome.[2] These were age, sex, religion, and type of disability. The selection methods matched the groups on three variables related to the Center which were considered likely to influence the criteria used to measure success of the experiment. These were the work area to which the client was assigned, the length of time that clients attended the Center, and the evaluator's rating at the beginning of the client's work experience (the three-week rating).

In addition, the sampling method matched all groups on five characteristics of relatives, age, distance from the Center, education, occupational level, and motivation for therapy, the latter as shown in the screening interview.

Age, sex, and type of disability were selected as variables on which the experimental and control groups should be matched because previous studies at the Center had showed that younger males with social, rather than orthopedic disabilities, tended to be more likely to remain employed.[3] While there was no empirical evidence that religion might directly influence the criterion variables, this data was available, and the writers believed religion could influence attitudes toward disabilities.

The work area assigned was considered an important variable because of the different employment opportunities in the community for different skills. The matching of the groups on the evaluator's rating at

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[1] In this chapter and in the remainder of the study if no differences were found at the 5 per cent level, the groups were considered matched. Similarly, differences significant at the 5 per cent level or lower were considered evidence that groups were not matched.

[2] The one exception to this was a significant difference between the maximum exposure experimental and the control group in age. (See p. 33)

[3] "Client Characteristics Related to Post-Rehabilitation, Vocational, and Economic Success," Paper presented by Harris K. Goldstein, DSW, at the National Rehabilitation Association Meeting in New York, 1969.

the three-week rating period was tested because this was the baseline from which the rehabilitation progress variables were measured. The length of stay at the Center was considered particularly pertinent because prior studies carried on at Delgado had shown this to be one of the most influential variables in terms of success in both school and employment after the rehabilitation experience.[4]

The characteristics of relatives that were selected to be tested for matching were chosen on a "face validity" basis, and were characteristics considered likely to influence relatives' attendance at therapy. It was hypothesized that younger, better educated, more economically stable (as shown by occupation) relatives who lived close to the Center were more likely to attend therapy; hence the groups should be matched on these variables. That the motivation of both the control and experimental relatives should be the same was considered crucial.

In the tables below (as well as in other analysis carried out in this study) the three experimental groups mentioned in Chapter III are compared with the control group. The first of these, "all experimental," refers to all clients who had been assigned to the experimental group whether their relatives participated in therapy or not. The second was those experimental clients with relatives who attended at least one group therapy session and has been called the "exposed experimental group." Thirty-three clients were in this group. The third sub-sample of experimental clients were those whose relatives had attended at least five group therapy sessions and are referred to in the following material as the "maximum exposed experimental group." Twenty-three clients were in this group.

While the maximum exposed group were younger than the control group and significantly so at the 5 per cent level, the other two experimental groups were not significantly different in age from the control clients.[5]

The influence of this age difference between the maximum exposed experimental group and the control group on the rehabilitation progress variables, however, appears to be small and in the opposite direction to the influence expected from group therapy. Age was significantly, but at best moderately, correlated only with 16-week ratings of quality and quantity of work. The correlation was .32 for the control group and .67 and .72 respectively for the exposed experimental and the maximum exposed experimental group. These correlations mean that younger clients would tend to have lower ratings than older clients.

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[4]Jennie Holt, et al., "Rehabilitation Client Characteristics Related to Employment Success," January, 1968, a Delgado Research Department Study; and Floyce Beevers, et al., "Rehabilitation Client Characteristics Related to Success in Training," 1969, a Delgado Research Study.

[5]The phrase "not significantly different" or "significantly different" refers to the 5 per cent level.

Since the experimental groups were younger, their 16-week ratings would tend to be lowered by this correlation with age. Thus any influence from these differences in age would be in a direction tending to reduce post-study differences between the experimental and control groups.

TABLE 1--Percentage of Clients Over and Under Nineteen

Age	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
Under 19	60	67	66	77
19 and over	40	33	34	23

The distribution by sex and religion was very close for all groups.

TABLE 2--Percentage of Clients by Sex

Sex	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
Male	87	85	82	87
Female	13	15	18	13

TABLE 3--Percentage of Clients by Religion

Religion	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
Catholic	64	56	58	61
Protestant	36	44	42	39

With regard to disabilities, the experimental group had a slightly higher per cent of neuroses and a somewhat lower per cent or orthopedic disabilities, but these differences were not significant.

TABLE 4--Percentage of Clients with Various Disabilities

Disability	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
Psychosis	13	13	15	17
Neurosis	15	28	33	30
Mental Retardation	49	51	52	52
Brain Damage	18	15	18	13
Orthopedic	31	15	12	17
General Debility	18	21	18	22
Communications Difficulty	13	8	6	4
Visual Problem	8	3	3	3

Though some clients had more than one disability, there was no significant difference between any of the four groups in terms of the number of disabilities.

TABLE 5--Percentage of Clients with More Than One Disability

No. of Client Disabilities	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
1	51	56	58	52
2	41	33	33	39
3	8	11	9	9

There was no significant difference between any of the four groups of clients with regard to the work area assigned for any of the periods when ratings were made--the three-week rating period, eight-week rating, sixteen-week rating, or final rating. This data is contained in Table 6 below.[6]

[6]Blue collar areas included training in building trades, industrial crafts and industrial practice. White collar training included business, graphic arts, personal service and photography.

TABLE 6--Percentage of Clients in "Blue Collar" and "White Collar" Areas

	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
		Third Week		
Blue Collar	54	62	57	56
White Collar	46	38	43	44
		Eighth Week		
Blue Collar	49	51	58	61
White Collar	51	49	42	39
		Sixteenth Week		
Blue Collar	44	51	58	56
White Collar	56	49	42	44
		Final Week		
Blue Collar	44	54	65	65
White Collar	56	46	35	35

While the control group tended to have slightly more clients who stayed between 8 and 16 weeks and who stayed exactly 16 weeks and somewhat less clients who stayed more than 16 weeks none of these differences were significant at the 5 per cent level. The mean number of weeks for each group were not significantly different.

TABLE 7--Percentage of Clients Who Stayed at the Center Various Periods

	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
Exactly 8 weeks	2	5	6	4
8-16 weeks	18	10	9	4
Exactly 16 weeks	31	23	24	31
More than 16 weeks	49	62	61	61
Mean length of stay	24.2	25.6	26.4	26.9

Only one significant difference was found between any of the mean evaluator ratings made three weeks after the clients had entered the Center. The control group was higher on the vocational objective scale. See Table 8.

TABLE 8--Means of Evaluators' Ratings Third Week at Center

	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
Dress	3.50	3.53	3.52	3.71
Grooming	3.37	3.19	3.34	3.50
Posture	3.11	2.97	3.09	3.27
Application of Instructions	2.89	2.62	2.75	3.18
Learning and Retention	2.70	2.35	2.50	2.68
Work Traits	3.27	2.86	3.06	3.23
Work Tolerance	3.63	3.38	3.46	3.59
Safety Consciousness	3.72	3.79	3.76	3.86
Adjustment	3.89	3.83	3.81	3.86
Vocational Objectives	3.06	2.30	2.36	2.65
Quality of Work	2.83	2.83	3.11	2.83
Quantity of Work	3.08	2.91	3.25	3.16

The control group had a slightly lower, and significantly so as compared to the maximum exposed group, proportion of relatives under 36 years of age.[7]

TABLE 9--Percentage of Relatives in Various Age Groups

	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
Under 36	15	6	6	6
37-50	62	67	69	82
Over 50	13	19	18	9

The distance of relatives from the Center was very similar for the four groups. Almost identical proportions of relatives were from Orleans and other nearby parishes.

TABLE 10--Percentage of Relatives from Various Areas

	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
Orleans	49	44	42	35
Jefferson	38	44	42	43
St. Bernard	13	10	12	17

The control relatives had slightly more, but not significantly so, education and similarly were in slightly less skilled jobs.

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[7]Only the characteristics of one relative (mothers) are given here because the distribution by mothers on these variables are not significantly different from the other relatives' distribution on these variables. In some cases totals do not add to 100 per cent because information was lacking on the mother and available only on fathers.

TABLE 11--Percentage of Relatives by Educational Background

	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
Less than High School	31	46	39	44
High School Graduate	28	21	21	17
More than High School	21	16	18	17

TABLE 12--Percentage of Relatives by Occupation

	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
Semi-skilled or less	23	15	15	13
Skilled Trades and Skilled Technology	10	10	12	9
Clerical and Sales	53	64	60	64

Motivation for therapy, however, was slightly higher among the control at the time of the screening interview.

TABLE 13--Percentage of Relatives by Motivational Categories*

	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
Well motivated	10	15	15	4
Motivated	59	51	52	57
Neutral or less	18	15	15	17

*Therapist unable to judge for missing per cent

Detailed tables showing material summarized in this chapter may be obtained from the writers.

CHAPTER VI

COMPARISON OF CONTROL AND EXPERIMENTAL GROUPS ON INTERVENING VARIABLES

With two exceptions, data obtained from Center records show that the experimental and control groups were not significantly different on ten intervening or "therapy" variables which were considered likely to influence the criterion measures used to measure the success of the study. However, the two variables on which significant differences were found did not influence the "progress" variables.

The ten variables reported in this chapter include nine to which the clients were exposed while at the Center and one that influenced them during the period before follow-up. The nine were vocational fundamentals,[1] social work services, vocational counseling, occupational therapy, music therapy, personal and social adjustment, psychotherapy and psychiatric treatment, speech therapy, and physical therapy. The variable considered likely to influence clients during the follow-up was the number of counselor contacts. Also included in this chapter is data on the type of disposition made on clients when they left the Center. Data on these nine variables were collected at the 8th, 16th, and final week, thus showing not only whether clients received these treatment modalities, but when and to what extent.

The two variables on which significant differences were found were as follows:

1. Significantly more group work service was provided the maximum exposed experimental group than the control; about half of all clients received this treatment.

2. All of the experimental groups received significantly more psychotherapy and psychiatric treatment than the control; about 30 per cent or less of all clients received these treatments.

An analysis of the distribution of rehabilitation progress variables (evaluators' ratings) and whether clients had or did not have each of these therapies showed no significant relationships, even at the 10 per cent level, for either the control group or the experimental groups. Similarly, no significant relationship was found between changes in evaluator's ratings and having or not having received these

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[1] Vocational fundamentals means basic remedial work in reading, writing and arithmetic.

therapies. Thus these therapies, even though received in different amounts for the control and experimental groups, did not significantly influence the rehabilitation progress variables.

There was no significant difference between the control and experimental groups in terms of those who received four or more of these treatment modalities as shown in the following table:

TABLE 14--Percentage of Clients Receiving Four or More Treatment Modalities

	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
8th week	87	94	91	91
16th week	74	79	78	85
Final week	74	84	85	81

Vocational Fundamentals

Help with vocational fundamentals was probably the most frequent treatment modality received by all clients in terms of the numbers of clients referred for this type of service. About nine out of ten clients in both the experimental and control groups were enrolled in some type of vocational fundamentals. This proportion remained stable during the client's stay at the Center. Academically Retarded Remedial or Adult Rehabilitation was the largest category of vocational fundamentals and included seven out of ten clients in all groups.

Though sample differences between the control and experimental groups ranged as high as 12 per cent, no significant differences were found between the control and any of the experimental groups when tested statistically.

Social Work Services

Next to vocational fundamentals, social work services appeared to be the most important influence on all groups of clients. About two out of three clients were reported as receiving casework services and about one out of two received group work services. Casework services were most frequently characterized as intensive. Differences in casework services ranged as high as 15 per cent between the control and various experimental groups, and differences in group work services ranged as high as 20 per cent between the control and various experimental groups, with the experimental group most frequently higher. However, because of the small number receiving these services, only one of these differences was significant at the 5 per cent level. This was between the control and the maximum exposed experimental group. Social casework was provided to about one-third of the clients' families, with a slightly higher but not significantly so proportion

going to families in the control group.

Vocational Counseling

Vocational counseling was reported as being provided to more than three out of four clients, but to almost all of these the intensity of counseling was reported as infrequent. Though the difference between the experimental groups and the control at the eighth week was as much as 18 per cent in favor of the experimental group, this was not significantly different. At the final week the difference in the percentage of clients receiving vocational counseling was less than 5 per cent between the control group and the various experimental ones.

Occupational Therapy, Music Therapy, and Personal and Social Adjustment

Though only about three out of ten clients received occupational therapy, those who received it tended to be reported as receiving "intensive" occupational therapy services. Participation in occupational therapy tended to decrease as the clients stayed at the Center, so that by the final week, less than 24 per cent of the clients were receiving occupational therapy. While differences between the experimental groups and the control group were as much as 8 per cent, none of these differences were significant.

About three out of ten clients also received music therapy, usually to a moderate degree. This proportion of clients remained stable during the client's stay at the Center and the difference between the experimental and control group on this variable was small or negligible and not significant.

Help with personal and social adjustment also appears to be a minor influence on clients in this study. Only three out of ten clients received help with personal and social adjustment and half of these were reported as receiving this only "infrequently." This proportion was stable throughout the clients' stay at the Center and the largest difference between the control and the various experimental groups was 5 per cent, not a significant difference.

Psychotherapy and Psychiatric Treatment

Although psychiatric treatment or psychotherapy was received by only a few clients in each group, significantly more clients in the experimental group were receiving these treatment modalities than in the control. However, about 90 per cent of the control clients as compared to 70 per cent of experimental clients in all experimental groups had no psychotherapy, so this would not appear to be an important influence on criterion variables. The proportion of clients who received these kinds of therapy was stable during the clients' stay at the Center and about the same per cent were reported at the final week as at the eighth week.

Speech Therapy and Physical Therapy

Speech therapy and physical therapy appeared to be minor influences on the clients' progress at the Center since each of these treatment modalities was received by less than 13 per cent of the clients. Those who received speech therapy were reported as receiving this only to a "moderate degree." The percentage receiving speech therapy tended to decrease as clients stayed at the Center so that at the final week only 8 per cent were receiving this therapy. The proportion receiving physical therapy remained stable during the clients' stay at the Center. There was no significant difference between the control group and any of the experimental groups in speech therapy or physical therapy.

Type of Disposition from the Center

According to the type of disposition, no significant difference in the distribution of experimental and control clients was found in the various categories. About four out of ten clients went to school or to on-the-job training, and another three out of ten clients went directly to work. The distribution of all four groups is shown in the following table.

TABLE 15--Disposition of Clients at Final Week by Percentages

Disposition of Clients at Final Week	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
Job Placement	29	29	28	18
Medical or Psychiatric Treatment	8	8	6	9
Referral to other agency	5	5	6	5
Return home	11	18	22	23
Training on job or in school	47	40	37	45

Number of Counselor Contacts

There was no significant difference in the number of counselor contacts between the time clients left the Center and the follow-up. Most clients had only one or two contacts. Twelve per cent of the control and 17, 15 and 20 per cent of the experimental clients had three or more contacts.

Detailed tables of material presented in this chapter may be obtained from the writers.

CHAPTER VII

COMPARISON OF THE CONTROL AND EXPERIMENTAL GROUPS ON THE REHABILITATION PROGRESS VARIABLES

On the basis of findings in this chapter, group therapy with clients' relatives appeared to make a significant difference in how clients are rated by evaluators (as a measure of their rehabilitation potential). This was especially true in terms of influences on the quality of work produced, and on the reality of the clients' vocational objectives, two of the more important rating scales in terms of success on the job.

Reliability of Ratings

Prior to determining whether group therapy had any influence on the rehabilitation progress variables (evaluator's ratings), the reliability of the twelve scales used to measure rehabilitation progress was tested. In making this test, these twelve scales were treated as though each was an item of an instrument that was twelve items long. Reliability scores based on Pearsonian correlations computed between the odd and even numbered scales and corrected by the Spearman-Brown formula were as follows:[1]

Three-Week Rating: $r = .86$

Eighth-Week Rating: $r = .87$

Sixteenth-Week Rating: $r = .96$

Final Rating: $r = .87$

The reliability tended to increase in proportion to the time the rater knew the client. Correlations were based on the total sample of experimental and control clients. The sample size was thus 78.

These ratings were considered to have at least four advantages over work sample tests. First, the ratings were made in the work area over a period of time as though the client was on an actual job situation similar to an actual job situation in terms of social demands on the client except there was no financial remunerations. Second, the scales

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[1] The slightly lower reliability of final ratings as compared to the 16-weeks ratings appears to be associated with the fact that some "final" ratings were at earlier periods than 16 weeks, because a few clients left the Center at 6 to 12 weeks.

were relative scales where the client was rated in comparison to what was expected of a beginning worker on the job for which he was rated. Thus they were considered similar to the way an employer would rate an employee by comparing him with other employees. Third, the client was rated in a situation that reproduced his situation on the job since he was rated while working with other clients on assigned tasks over a period of time. Fourth, these scales were simple enough so that employers could be asked to rate clients in the follow-up study. Copies of these scales are in Appendix B.

The means of the ratings of the various periods were used to determine if the experimental variable of group therapy made a difference in rehabilitation progress. The "t" test for significant differences was used to test if means for the control group were significantly different from the means of the various experimental groups at the third- and sixteenth-week rating periods.

Although some clients stayed longer and some shorter than sixteen weeks at the Center, the sixteen-week period was selected as a criterion measure for two reasons. First, more clients stayed this length of time than any other. There was some evidence from previous research carried out at Delgado that the length of stay at the Center was a relevant variable that influenced these ratings. Using the sixteen-week ratings as a criteria and noting differences between this and the three-week rating meant that a standard length of time was used for all clients. For those few clients who stayed less than sixteen weeks (two in the experimental group and three in the control group) the final rating was used.

Only one significant difference between the control and any of the three experimental groups was found at the beginning of the study before therapy began. This was in favor of the control group and was on the scale "vocational objective" where the control group was significantly higher at the 2 per cent level than all experimental clients, and significantly higher at the 5 per cent level than the exposed experimental. This scale was considered to measure the client's willingness to discuss his vocational objectives, how realistic these vocational objectives appeared to be in relation to his aptitude and disabilities, his willingness to modify plans as needed by his disability, and how serious his interest was in a vocational objective.

Differences in Ratings at the Sixteenth Week

At the sixteenth week, the entire experimental group had moved ahead of the control on eleven of the twelve ratings and was significantly higher on four: work traits, adjustment, vocational objectives, and quality of work.

TABLE 16--Means of Evaluation Ratings

Variables	Control	All Experimental	Exposed Experimental	Maximum Exposed Experimental
		3rd Week		
1. Dress	3.50	3.53	3.52	3.71
2. Grooming	3.37	3.19	3.34	3.50
3. Posture	3.11	2.97	3.09	3.27
4. Application of Instructions	2.89	2.62	2.75	3.18
5. Learning and Retention	2.70	2.35	2.50	2.68
6. Work Traits	3.27	3.86	3.06	3.23
7. Work Tolerance	3.63	3.38	3.47	3.59
8. Safety Consciousness	3.72	3.79	3.76	3.86
9. Adjustment	3.89	3.83	3.81	3.86
10. Vocational Objective	3.06	2.30	2.36	2.65
11. Quality	2.83	2.83	3.11	2.83
12. Quantity	3.08	2.91	3.25	3.17
		16th Week		
1. Dress	3.74	3.76	3.79	3.86
2. Grooming	3.35	3.47	3.45	3.52
3. Posture	3.00	3.21	3.21	3.19
4. Application of Instructions	3.35	3.53	3.48	3.43
5. Learning and Retention	2.91	3.26	3.28	3.38
6. Work Traits	3.56	4.12	4.03	3.86
7. Work Tolerance	3.50	3.82	3.72	3.86
8. Safety Consciousness	4.00	3.91	3.90	4.05
9. Adjustment	3.85	4.24	4.34	4.29
10. Vocational Objective	2.53	3.30	3.38	3.33
11. Quality	3.25	3.75	3.83	3.88
12. Quantity	3.21	3.54	3.58	3.59

(For comparison purposes this table repeats some data in Table 8.)

The exposed experimental group was also higher than the control on the same eleven ratings, and was significantly higher than the control on two of the three latter ratings, adjustment, vocational objective, and quality of work and also higher on work tolerance. The level at which differences were significant was higher for the exposed experimental than for the "all experimental," implying that the extent of therapy made a difference. This trend was supported by findings from the maximum exposed experimental group which was higher than the control on all twelve ratings, significantly higher than the control on these same three variables and somewhat higher on two of them than the exposed experimental.

The rating on adjustment referred to cooperation with workers, individuals and groups, to the client's cooperation with his supervisor, and adaptability to the work activity itself. The latter was focused on the client's ability to obtain satisfaction from his work, rather than his work tolerance which was rated on another scale.

The rating on quality of work referred to the process by which production was completed. It included factors considered to improve the quality of work as well as measures of quality of the work output itself. The former included the ability to use fine or gross body movements as required by the job, interest in the job, choice of proper tools and equipment and efficiency in their use. The quality of output of clients was evaluated on the basis of accuracy and neatness of the product as applicable. The time used to complete the product was not part of this scale but a part of another scale "quantity of work produced" on which the experimental and control groups were not significantly different.

The writers believed that significance differences in Table 17 might be influenced by two factors that obscured the true influence of group therapy with relatives. First, the control group started off significantly higher than the experimental group on one scale (vocational objectives). Second, there were a number of instances where the control group mean ratings at the third week were higher than the experimental mean ratings at the third week even though the difference was not significant. This was especially true on grooming, application of instructions, learning and retention, work traits, work tolerance, and vocational objectives.

Changes in Ratings From the Third to the Sixteenth Week

To make allowances for the fact that the control group started out higher on these variables, "change scores" were computed. "Change scores" was the name given to the differences in ratings on each of the evaluator's rating scales that was found when third-week ratings were subtracted from sixteen-week ratings. Means of these change scores were then obtained and "t" tests made of these differences in means of change scores.

TABLE 17--Significant t values--Means[1] of Control and Various Experimental Groups--Evaluator's Ratings

Groups	Eval. Rating Scale	t Value	D.F.	Signif. Level
	3 Weeks' Rating			
Control > All Experimental	Vocational Objective	2.04	66	2%
Control > Exposed Experimental	Vocational Objective	1.83	58	5%
	16 Weeks' Rating			
All Experimental > Control	Work Traits	1.29	68	(nearly 10%)
All Experimental > Control	Adjustment to Colleagues and Supervisors	1.43	68	10%
All Experimental > Control	Vocational Objective	1.77	64	5%
All Experimental > Control	Quality of Work	1.36	60	10%
Exposed Exper. > Control	Adjustment to Colleagues and Supervisors	1.74	63	5%
Exposed Exper. > Control	Vocational Objective	2.01	63	5%
Exposed Exper. > Control	Quality of Work	1.52	53	10%
Max.Expo.Exper. > Control	Adjustment to Colleagues and Supervisors	1.74	55	5%
Max.Expo.Exper. > Control	Vocational Objective	2.04	50	2%
Max.Expo.Exper. > Control	Quality of Work	1.60	41	10%

[1]All clients did not have ratings on all variables at all periods because there were some rater omissions and some clients left before 16 weeks. The total number of ratings on which "t" tests were based can be computed from the D.F. column.

TABLE 18--Mean Differences of Evaluator Ratings for Given Time Periods

Variables	Difference Between Control and Exper.	Difference Between Control and E.E.	Difference Between Control and M.E.E.
		3rd Week	
1. Dress	-.03	-.02	-.21
2. Grooming	.18	.03	-.13
3. Posture	.14	.02	-.16
4. Application of Instructions	.27	.14	-.29
5. Learning and Retention	.35	.20	.02
6. Work Traits	.41	.21	.04
7. Work Tolerance	.25	.16	.04
8. Safety Consciousness	-.07	-.04	-.14
9. Adjustment	.05	.08	.03
10. Vocational Objective	.76	.70	.41
11. Quality	.00	-.28	.00
12. Quantity	.17	-.17	-.09
		16th Week	
1. Dress	-.02	-.05	-.12
2. Grooming	-.12	-.10	-.17
3. Posture	-.21	-.21	-.19
4. Application of Instructions	-.18	-.13	-.08
5. Learning and Retention	-.35	-.37	-.47
6. Work Traits	-.56	-.47	-.30
7. Work Tolerance	-.32	-.22	-.36
8. Safety Consciousness	.09	.10	-.05
9. Adjustment	-.39	-.49	-.44
10. Vocational Objective	-.77	-.85	-.80
11. Quality	-.50	-.58	-.63
12. Quantity	-.33	-.37	-.38

5 > 4

As might be expected, this highlighted changes in the experimental group as compared to the control group. The experimental group had significantly more positive changes in mean scores than the control. This tended to increase with more therapy though not consistently so as shown by the following table showing the per cent of mean change scores that were positively increased or negatively changed (decreased).

TABLE 19--Per Cent of Evaluator's Ratings (12 scales) Showing Changes After Group Therapy with Relatives

Groups	Positive Change	Negative Change	No Change
Control	50	50	None
Experimental	83	None	17
Exposed Experimental	92	8	None
Maximum Exposed Experimental	75	17	8

Table 20 shows the "t" tests which were significant at the 10 per cent level or less. This table highlights the trend mentioned earlier, and shows that the experimental group which had more therapy showed the greatest change. Though not true consistently on all variables, "t" tests on the maximum exposure group tended to be higher and thus differences were significant at a lower level than "t" tests on the exposed experimental. In turn "t" values for the exposed experimental group tended to be higher than those for the "all experimental" group.

Most significant of all was the change in quantity of work produced, where change scores by the exposed experimental and all experimental were significantly greater than the control at the 2 per cent level, a finding that was not apparent from the test of the sixteen-week ratings alone. Almost equally significant was the change in vocational objectives, though the trend here was slightly less clear with differences at the 1 per cent and 5 per cent level.

The question of whether these differences were influenced by the significant differences found in the intervening variables (mentioned in Chapter VI) between the experimental and control groups, particularly in social group work, and psychotherapy and psychiatric treatment, was tested by correlating these variables with changes in ratings between the third and sixteen weeks. No significant correlations were found, showing no influence on change scores from the differences in intervening variables between experimental and control groups.

TABLE 20--Significant "t" Values for Means of "Change Scores"
(16 weeks rating minus 3 weeks rating)

Groups	Eval. Rating Scale	t Value	D.F.	Signif. Level
Experimental > Control	5 Learning & Retention	1.49	66	10%
Experimental > Control	6 Work Traits	1.88	68	5%
Exposed Experimental > Control	7 Work Tolerance	1.45	68	10%
Experimental > Control	9 Adjustment	1.51	68	10%
Exposed Experimental > Control	9 Adjustment	2.01	63	2%
Maximum Exposed Experimental > Control	9 Adjustment	1.68	55	5%
Experimental > Control	10 Vocational Objective	2.50	64	1%
Exposed Experimental > Control	10 Vocational Objective	2.53	63	1%
Maximum Exposed Experimental > Control	10 Vocational Objective	1.68	50	5%
Experimental > Control	10 Quality of Work	1.37	60	10%
Exposed Experimental > Control	10 Quality of Work	1.35	53	10%
Maximum Exposed Experimental > Control	11 Quality of Work	1.42	41	10%
Experimental > Control	12 Quantity of Work	1.99	60	5%
Exposed Experimental > Control	12 Quantity of Work	2.06	53	2%
Maximum Exposed Experimental > Control	12 Quantity of Work	2.21	41	2%

CHAPTER VIII

COMPARISON OF CONTROL AND EXPERIMENTAL GROUPS ON THE ADJUSTMENT VARIABLES

Data from the follow-up study indicates that group therapy with relatives of rehabilitation clients made no difference in the clients' adjustment on the job, but considerable difference in their adjustment to school and even more with regard to relationships with their families.

A significantly higher proportion of the control group was working, while a significantly higher proportion of the various experimental groups were in school. This does not appear to be related to any differences in the identifying variables mentioned in Chapter V and particularly it does not appear that it is the younger clients who are in school. Instead, this could be interpreted to mean that group therapy helped clients to attend and remain in school, thus increasing their long-term potential for success and adjustment.

Clients in the control group who were working were rated significantly higher on three scales (work traits, safety consciousness and vocational objective) than the experimental clients who were working. While no significant differences were found with regard to the other variables used to measure success on the job between the control and experimental clients who were working, differences were found in the sample in favor of the experimental group in terms of the occupational level of the job held, in terms of the number of job changes, and in more optimism about future earnings.

Among those clients in school, experimental clients remained in school significantly longer and were making better grades than control clients.

The experimental groups reported that the most important influence on their progress was their families' attitudes, and they reported this significantly more than the control group. Further, they reported that their families' expectations of them had been significantly clarified.

The satisfaction shown by clients and their families' understanding of them were definitely in favor of the experimental group in three out of four measures. In the fourth, no differences were found.

Family understanding of the clients in the experimental groups was significantly better than in the control group, with the highest understanding score among families of maximum exposed clients. All experimental groups were significantly higher than the control in their expressed satisfaction with their home situation. Among those clients

in school, there was a significantly higher expression of satisfaction in school among the experimental groups than in the control groups. Among those clients who were working, no significant differences in expressed satisfaction on the job were found between the experimental and control groups.

In obtaining the follow-up data, two variables were examined for their possible influence on findings. The first of these was who was present for the follow-up interview. No significant difference was found between the control and experimental groups in who was present for the interview. About half of the interviews were held with the client only and about half were held with the client and one or more other relatives. The second possible influence was the living arrangements of the client at the time of the interview (assumed to be the same as the living arrangements since leaving the Center). Significantly more maximum exposed experimental clients lived with their parents (83%) than the control (57%). No significant difference was found between other experimental groups (72% for the experimental and 73% for the exposed experimental) and the control. This difference can probably be accounted for by the relative youthfulness of the maximum exposed experimental group and is not to be considered an outcome of the experiment. However, the living arrangements of clients prior to the experiment was not known so whether this represents a change cannot be said.

Findings on Clients Who Were Working at Follow-Up

Significantly more, at the 5 per cent level, of clients in the control group were working. This was 43 per cent of the control clients as compared to 22 per cent among all experimental, 21 per cent for the exposed experimental, and 17 per cent for the maximum exposed experimental. It will be noted that the per cent employed decreased as the exposure to therapy increased. There was no significant difference in the age of clients who were employed in the four employed groups, thus eliminating the possibility that age differences within the groups was responsible for the differences in employment.

In the material that follows, in the interest of brevity, the names of the four groups being compared are omitted. In each case the first per cent or figure given is for the control group, the second is for all experimental clients, the third for the exposed experimental clients and the fourth for the maximum exposed experimental. Per cents are of the total number in each group who were working.

There was no significant difference in the distribution by salary per week among the four groups. About half of the control and about half of each of the experimental groups were earning less than $60.00 a week.

The groups were about equally divided in their opinions about their current earnings. About 29 per cent of the control group and 31 per cent, 32 per cent, and 32 per cent of the various experimental groups were earning about what they expected or more. There was no significant difference in the distribution of the groups with regard to

expected future earnings. The experimental group was a little more optimistic. Percentages of those working who expected to earn more after they left the Center were 42 per cent, 44 per cent, 47 per cent, and 50 per cent respectively.

Among those working, there was no significant difference in the distribution by length of time on the current job. About half of those working in the control group and about half of those working in each of the experimental groups had been working more than six months, and about the same proportion had been working less than six months since they left the Center.

Among those working, there was no significant difference in the length of time on the longest job held. Again about one-half of each group had held their longest job for less than six months and about one-half had held their longest job for more than six months.

The number of jobs held since leaving the Center was very similar for each of the groups. The experimental groups, however, appeared to have changed jobs a little less frequently than the control group. Among those with work records, 44 per cent of the control, as compared with 61 per cent, 59 per cent, and 59 per cent of the experimental groups had held only one job.

Evaluator's Ratings by Employers

With one exception, evaluator rating scales used by the employer were the same as those used at the third and sixteenth week by the evaluators while clients were at the Center. When used by the employer, the first three scales measuring dress, grooming, and posture were combined into one scale referred to as "personal appearance." This was done because during the study the three scales were found to be highly correlated. All clients on whom employers or former employers had completed evaluator ratings were used in this test. The sample size was thus 17 for the control group, 13 for the experimental, 10 for the exposed experimental, and 7 for the maximum exposed experimental.[1] Though there may have been different frames of reference used by the employers in making these ratings (from evaluator's frame of reference when rating at the third and sixteenth weeks), there is no reason to believe that various employers differed from each other in frames of reference. Thus, the frame of reference from which ratings in the follow-up study were made were considered comparable from control to experimental groups. The interviewer attempted to explain how to complete the ratings in such a way that relatively uniform ratings would result from various employers, but tried not to influence them in any other way. In some instances, ratings were left with employers to be completed.

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[1] Because some employers did not complete all ratings, on two scales there were only 16 control ratings, and 11 experimental, 8 exposed experimental and 6 maximum exposed.

The small size of this sample means that one must be cautious about the findings on these progress variables. However, among employed clients (with one exception) ratings for control clients were significantly higher (at the 2 per cent or 1 per cent level) than for any of the experimental groups on three variables--work traits, safety consciousness, and vocational objective. The difference between the control group ratings on these variables and the ratings of the various experimental groups tended to increase as exposure to therapy increased. Thus "t" values were higher for the maximum exposed group when compared to the control than for the exposed experimental or for all experimental.

The one exception was that the exposed experimental group was rated significantly higher at the 2 per cent level than the control on "adjustment to supervisors and colleagues."

These findings are shown in Table 21 (page 56).

Change scores between evaluator ratings at the sixteenth week and employer ratings were not computed because it was considered likely that the employers might have a different frame of reference than the evaluators.

Findings on Clients Who Were in School

A significantly larger percentage of the experimental clients were in school. In the control group 17 per cent were in school as compared with 33 per cent, 36 per cent, and 39 per cent in the three experimental groups. It will be noted that the per cent in school increased as the exposure to therapy increased. There was no significant difference between the four groups in the age of clients who were in school, thus indicating that age was not a reason for differences in the number of clients who were in school.

For those clients who were or had been in school since leaving the Center, there was no significant difference in the type of school attended. About 20 per cent of each group who were or had been in school, were or had been in high school and college, and about 15 to 20 per cent of each group were or had been in trade school.

Among those who were or had been in school, the length of attendance at school was significantly longer for the experimental groups. For the control group 41 per cent had been in school for six months or longer. For the experimental groups these percentages were 83 per cent, 81 per cent and 91 per cent.

There was no significant difference in the proportion of the courses that clients had completed except that the exposed experimental group was slightly higher than other groups. Percentages were 26, 28, 28 and 36. Only one client who had started school since leaving the Center had left school. This was a control client who left school to go to work.

TABLE 21--Comparison of Employer Ratings at Follow-Up on Various Groups

Group with Higher Rating	Group with Lower Rating	Variable Name	Degree of Freedom	t Value	Significance Level
Control	Experimental	Work Traits	30	2.87	.005
Control	Experimental	Safety Consciousness	30	2.28	.02
Control	Experimental	Vocational Objective	29	2.43	.02
Control	Exposed Exper.	Work Traits	27	3.33	.005
Control	Exposed Exper.	Safety Consciousness	26	2.80	.01
Control	Exposed Exper.	Vocational Objective	25	1.93	.05
Control	Max. Exposed Exper.	Work Traits	24	4.22	.0005
Control	Max. Exposed Exper.	Safety Consciousness	24	3.78	.0005
Control	Max. Exposed Exper.	Vocational Objective	24	2.94	.005

Grades in school for the experimental group were significantly higher. From 75 to 90 per cent of the grades of the experimental clients were "B's" or better while none of the control clients were earning "B's" or better.

Factors Influencing Overall Progress

Influence from therapy can be inferred from the client's responses from two questions about overall adjustment.

A significantly larger per cent of the control group as compared to any of the experimental ones considered their work with their counselor as the most important influence on their progress. Percentages for the four groups were 29, 6, 6, and 9 per cent. Conversely, a significantly larger percentage of the maximum exposed experimental group considered their family attitude as the most important influence on their progress. Proportions ranged from 26, 33, 31 and 44 per cent.

A general question about the family's expectations of the client showed a significantly greater per cent answering "my family understands me a great deal better" among the experimental group. The proportions answering here were 26, 47, 44, and 55 per cent.

Findings on Various Measures of Client Satisfaction

Family Understanding Scale

Ten questions were used to measure the understanding that families had gained of clients at the end of the study. These were items 64 through 73 on the follow-up questionnaire. The reliability of these 10 items by the split-half method, corrected by the Spearman-Brown correction method, was .72. Because some items did not apply to all clients (for example, one asked about the family understanding of client's progress in school and another asked about family understanding of client's work ability), and because all clients did not answer all other items, no total score was obtained for this scale. (Findings must be interpreted in light of the fact that no knowledge was available on the family understanding of clients prior to the beginning of the study, so that the question of whether these represent changes cannot be answered.)

The experimental groups in general scored significantly better than the control on this scale;[2] in addition these differences between control and experimental scores increased as exposure to therapy

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[2]The term "better" rather than "higher" is used here because low scores on these items were more desirable. This occurred because a score of "1" was used for "understands a lot better" and a score of "4" was used for "understands a lot less."

increased. Among the experimental group, scores significantly better at the 5 per cent level or less were found on four items. Among the exposed experimental these differences were found among eight items. In addition "t" values were higher in this comparison than in the former.

Table 22 shows actual "t" values and significant levels for the various groups. (page 59)

Home Satisfaction Scale

The Home Satisfaction Scale was made up of 14 items and was completed by all clients in the follow-up study. The reliability of this scale by the split-half method, corrected by the Spearman-Brown correction formula, was .84.

Two of the three experimental grcups showed significantly higher mean total scores on this scale, with the maximum exposed group being significantly higher at the two per cent level than the control group as shown in the following table.

Group	Mean	t Value	Significance Level
Experimental > Control	54.1 > 50.1	1.73	5%
Exposed Experimental > Control	53.8 > 50.1	1.55	10%
Maximum Exposure > Control	56.4 > 50.1	2.58	2%

Those items on which the experimental groups were significantly higher were as follows:

Item 1--general family relations

Item 2--feeling about the mother

Item 3--feelings about the father (only for the maximum exposed experimental)

Item 8--my interest in what the family does

Item 11--my chance to take part in family decision-making (only for the maximum exposed experimental)

Item 12--how well my parents do their job as parents (only for the maximum exposed experimental)

Item 13--my family understanding of my disability

TABLE 22--Comparison of Groups on the Family Understanding Scale

Item Measuring Family Understanding of:	"t" value for Exper. vs Control D.F. and Significance level	"t" value for Exposed Exper. vs Control D.F. and significance level	"t" value for Max. Exposure Exper. vs Control and D.F. and significance level
#1--My disability	N.S.*	N.S.	46-2.39-.025
#2--How much work I can do	58-1.58-10%	64-1.41-10	46-2.12-.025
#3--My personality	68-2.02-.025	64-1.98-.05	56-2.93-.01
#4--My feelings about being handicapped	51-1.42-10%	57-1.48-.10	42-2.01-.02
#5--The kind of work I can do	N.S.	N.S.	N.S.
#6--My social activities	64-1.46-10%	60-1.42-.10	53-1.80-.05
#7--What I am doing in school	N.S.	N.S.	N.S.
#8--My relation with the opposite sex	58-3.74-.0005	N.S.	44-1.67-.05
#9--How much I can expect to earn	55-4.74-.0005	62-5.25-.0005	45-6.86-.0005
#10--What I can do for myself	6?-1.70-.05	59-1.41-.10	51-2.57-.01

*N.S. = not significant at the 5 per cent level

The School Satisfaction Scale

This scale was completed only by those clients who were in school at the time of the follow-up study or who had been in school more than 12 weeks since leaving the Center. In the latter situation clients were asked to complete the scale for the last school attended. Though significant differences were found by this scale, because the number of clients is small, findings should be interpreted with caution.

The reliability of the School Satisfaction Scale by the split-half method, corrected by the Spearman-Brown correction factors, was .91.

The mean total score of the maximum experimental group was significantly higher than the mean total score of the control, though "t" values were slightly less than for the Home Satisfaction Scale as shown in the following table.

Group	Mean	t Value	Significance Level
Experimental > Control	79.0 > 75.0	1.25	Almost 10%
Exposed Exper. > Control	80.1 > 75.0	1.45	10%
Maximum Exposed Experimental > Control	81.2 > 75.0	1.78	5%

N for control = 11; N for experimental = 17; N for exposed experimental = 16; N for maximum exposed experimental = 12.

Items on which the experimental groups showed significantly higher satisfaction were as follows:

Item 3--my grades

Item 4--how other students feel about me

Item 5--preference for being in school instead of working

Item 6--preparation for making a living (for the maximum exposed group only)

Item 8--how busy school keeps me

Item 11--how well the teachers understand my needs (for the maximum exposed only)

Item 13--the competence of my teacher (this item had the most significant differences of all)

Item 14--how my family feels about my being in school

Item 20--how my training fits my disability

The Minnesota Job Satisfaction Scale

Minnesota Scales were obtained on all clients who were working full- or part-time, or who had worked full-time or part-time for more than 12 weeks since leaving the Center. In the latter situation they were asked to complete the scale on the basis of their feelings about the last job they had held, as well as these could be remembered. The small number of responses and the mixed nature of this data limited its usefulness.

The most valid findings from this rather limited data appeared to be of three kinds:

1. Clients who were employed full-time at the time of the follow-up study were more satisfied on the job than all clients who filled out this scale, including both full- and part-time workers and those who were unemployed but who had a history of full- or part-time work since leaving the Center.

2. Though the control group was slightly higher, there was no significant difference in satisfaction scores between the experimental and control group, either with regard to those clients who were employed at the follow-up or for those who had work records.

3. Among those clients working full-time at the time of the follow-up, except for the maximum exposed experimental group, the scores were not significantly different than those obtained on disabled individuals by the authors of the Minnesota Scale.

Only the scores for the general satisfaction scale are presented below on the grounds that these are considered the most valid of all sub-scores. These are based on 20 items rather than five as are other sub-scores. They also can be compared with findings that the authors present.[3]

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[3]David J. Weiss, et al., Minnesota Studies in Vocational Rehabilitation, Vol. XXII, October, 1969, p. 21.

TABLE 23--Scores on the Minnesota Job Satisfaction Scale

Client Group	Control Group	Experimental Group	Exposed Experimental Group	Maximum Exposed Experimental Group	Disabled Persons Studied in Minnesota
All Clients Working or with Work Histories	74.4	68.6	69.2	65.6	-
Number of Clients	21	13	11	6	-
Clients Working Full-time at the Time of the Study	76.5	73.2	76.0	69.0	75.8
Number of Clients	16	7	6	3	355

CHAPTER IX

SUMMARY AND CONCLUSIONS

This project has demonstrated the effectiveness of group therapy as a family change agent as measured by certain client changes during and after a rehabilitation experience which for some relatives included family group therapy. Specifically, the experimental group, whose relatives received group therapy, showed positive changes on ten out of twelve vocational evaluator's ratings during sixteen weeks at the Rehabilitation Center; while the control group had six positive and six negative changes in ratings. Experimental clients were significantly higher at the 5 per cent level on changes in four changes in ratings during this period, on work traits of organization, initiative and perseverance, on adjustment to work, on meaningfulness of vocational objective, and on quantity of work performed, while control clients were not significantly higher on any changes in ratings.

A follow-up study done one year after the client left the Center, indicated continued better adjustment for the experimental clients. A significantly larger proportion of experimental clients were in school, were making significantly better grades and were more satisfied with school than control clients. Though a significantly larger proportion of control clients were working and though employers' ratings on three scales (work traits, safety consciousness, and vocational objective) were significantly higher for control clients, this was thought to be a positive outcome of therapy where clients with most work potential were encouraged to go to school rather than employment. In the sample, experimental clients had fewer job changes and a higher occupational level. Experimental clients reported significantly better understanding of them by their families, significantly better satisfaction with their home situation, and that their family was the most significant influence on their success.

Discussion and Explanations

The meaning of some of these findings is clarified by comments obtained from the interviewers.[1] The interviewers remarked often on differences in the rating scales used by the teachers and employers who evaluated the clients. They indicated that the teachers were trained in how to rate or grade rigorously as this was a necessity in their profession. The employers, on the other hand, were more

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[1] After each interview, the interviewer dictated a brief narrative covering any special situations she had noted in the interview. The material above is taken from these comments.

generally accepting of small inconsistencies in the clients' behavior. The teachers had more time for rating than the employers.

Interviewers found that client comments about their relationship with their counselor were of two types: either extremely positive and helpful to the client or extremely negative. Additional research in this area might be beneficial in determining the part counselor interest plays in the outcome of rehabilitation clients.

Several clients were found at home after having participated in work activities that he or she felt they could not accomplish. When the interviewer talked with the former employers the employers reported their belief that the client could do the work but for emotional reasons had left. (The number of comments of this kind was evenly distributed between experimental and control clients.) This could be interpreted to mean that more counseling and guidance is needed after the client left the Rehabilitation Center and obtained employment.

The interviewers found some clients to be extremely pleased with their present situation although they were not working and not in school. These were clients who were so disabled that they had come to the Center mostly to learn self care activities and who had accomplished this learning. They were accepting of the limitations of their disability and were happy over their accomplishments. There has been a national trend to place more emphasis on this type of rehabilitation and it is apparently well integrated into the rehabilitation process to which clients in this study were exposed.

For many adolescent clients, the interviewer encountered difficulty in getting the parents' permission to talk to the client alone. Much of this problem appeared related to curiosity on the part of the parents, but it might be interpreted also on a continuation of the dependency response of family members to the ill member of the family. Although this dependency was alleviated to some extent by the rehabilitation experience, it still existed. Although separate interviews were attempted in these instances, some unknown contamination of client attitudes resulted from the close proximity of the parents (who were often in the next room).

By using the material obtained on each client and the material available in the client's rehabilitation record, interviewers were able to locate, in the follow-up study, 91 per cent of the 78 clients in the original sample. This included two clients who completed questionnaires and were rated by their immediate superiors while serving in Vietnam. To arrange appointments, clients were called, sent letters, and visited by the interviewer. When they could not be immediately located, relatives or other persons that knew them were contacted. In some cases registered letters were sent. While all losses might have been eliminated by maintaining contact with clients during the year preceding the follow-up, this may have introduced a bias, and the 91 per cent included in the follow-up was considered an adequate enough part of the original sample so this was not warranted.

The finding that employer ratings were higher for the control clients while for clients in school, satisfaction and grades were higher for the experimental group, may be interpreted as a positive outcome of therapy.

First one would assume that the Center would refer to employment clients who could do best in a work situation, while clients who could do best in school were referred to this resource. The higher ratings of the control clients by employers, and the higher grades and self ratings of experimental clients on the School Satisfaction Scale would thus reflect the client's ability to benefit from the Center's suggestions.

However, plans suggested by the Center for clients in this study appear to have been different than usual and thus possibly influenced by the therapy. For example, the proportion of experimental clients who were in school was higher than the usual proportion of clients referred to school. At the same time, a higher proportion of control clients were working than the proportion of clients usually working.[2] (The usual proportion of clients referred to school was 20 per cent; among these experimental clients it was 33 per cent. The usual proportion referred for work was 36 per cent; among control clients in this study it was 44 per cent.)[3] This could mean that clients who were screened out of possible employment to go to school were those with potential for better production on a job later. If this is so, as appears reasonable, those clients screened out from job placement to go to school would have been clients who would have received higher employer ratings had they been on the job. Thus, with these clients not in the experimental group on the job, employer ratings of the experimental group clients would be lower than the control, an expectation that agrees with findings.

The lack of difference between control and experimental clients' scores on the Minnesota Scale of Job Satisfaction may be a function of interaction between the scale and the clients. This scale, requiring about 40 minutes to over an hour by some clients (with some clients with reading problems needing to have this read to them) was part of the overall follow-up interview and usually administered near the end of the interview. The interviewer reported that many clients seemed fatigued with the length of the scale, and an inspection of the data reveals a rather large halo effect in many scores, with clients consistently checking all the items "3" or consistently checking all "4's." Midway in the study, to try to avoid these problems, consideration was given to substituting the short form of the scale for this

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[2]John P. Galloway, et al., "Client Characteristics Relating to the Intensity of Social Work Services Received," a Delgado Research Study, 1969.

[3]These actual per cents in school and at work are slightly different from data in Table 15, Chapter VI because counselors and clients did not always follow the Center's recommendations exactly.

long form but because this would have produced less information, and with some questions about the comparability of results, the long form was continued.

If the study was to be repeated, the writers would recommend that the short form of this scale be used in an attempt to reduce fatigue and the halo effect from one item to another.

Suggestions for Further Study

The findings that group therapy with relatives has significant influences on clients have stimulated the writers to propose a further study to learn more about what kind of group therapy with relatives is most effective, and with what types of clients each kind is most useful. To permit wider generalizations of findings, other centers at other locations than New Orleans, with other types of clients will be included.

Information on the therapy experience in this study indicates that some clients benefited from one type of therapy and others from another type, depending on their need at the particular time. Some clients with severe disabilities appeared to need a therapy directed toward their family understanding of their limitations and abilities, whereas a less severely handicapped client might benefit from therapy directed toward encouraging a parent or spouse to be more directive in getting the client to achieve in the area of work. There is also the question of whether an educational therapy approach is better than an interactional approach and with what kind of client.

In order to generalize findings, this research would be conducted in two other locations than Delgado, each with a different type of rehabilitation client, different facilities and under different auspices. Larger samples will be used at each location, thus eliminating the problem found in this study of attempting generalizations from small samples. At the same time, the knowledge gained in this study of group therapy and how to motivate relatives to attend sessions should do much to provide a more uniform exposure to therapy throughout the experiment.

In this follow-up study, another name than group therapy will be used (perhaps family counseling) as a different name is believed to be more attractive to relatives and to increase motivation and attendance.

APPENDIX A--Forms Used on Obtaining Client Characteristics and Interviewing Variables

This appendix includes forms developed for this project and used to collect data on:

1. Client characteristics--name, age, sex, religion, disability (Intake Form--two pages).

2. Relatives' Characteristics--name, age, address, religion, relationship to client, education, occupation, and motivation for group therapy (Intake Form--two pages).

3. Intervening variables:

   A. Type and Degree of Vocational Fundamentals Services Rendered.

   B. Type and Degree of Social Work, Vocational Counseling and Psychotherapy Services Rendered.

   C. Type and Degree of Occupational Therapy Services Rendered.

   D. Type and Degree of Music Therapy Services Rendered.

   E. Type and Degree of Speech and Hearing Services Rendered.

   F. Type and Degree of Personal and Social Adjustment Services Rendered.

   G. Type and Degree of Physical Therapy Services Rendered.

4. Record of Group Therapy.

INTAKE FORM

Information on client

1. Client's name_____
2. " age_____
3. " sex_____
4. " religion_____
5. " disability as diagnosed by physician

_____

Information on relatives

1. Relative's name_____
2. " age_____
3. " address_____
4. " religion_____
5. " relationship to client_____
6. " educational level_____
7. " occupation_____
8. Statement about the relative's degree of motivation for group therapy.

_____

_____

9. (Indicate on the scale below the degree of motivation for group therapy, circle the appropriate number.)

+2	+1	0	-1	-2
Well motivated	motivated	neutral	not motivated	extremely un-motivated

Neutral - the relative makes statements that indicate they have no feelings one way or the other about attending meetings.

Not motivated - the relative shows disinterest, but will attend group meetings although he doesn't want to.

Extremely un-motivated - the relative indicates he will not attend group meetings under any circumstances.

Motivated - the relative is interested in becoming involved in group therapy and indicates he will attend.

Well motivated - the relative is eager to become involved in group therapy and will attend; high degree of interest.

10. (Give a brief statement quoting the relative's response to the possibility of participation in group therapy. The statement should include comments the therapist feels indicate the relative's feeling about group therapy.)

RESEARCH DEPARTMENT

Type and Degree of Vocational Fundamentals Services Rendered

Client's name_____ Date_____

To be filled out by VF instructor at time of each client staffing.

1. Client has---has not been receiving VF services.
(If client has not been receiving services, it is because

___a. no need has been indicated.
___b. client has a special disability which precludes VF services)

2. Type of services:

____a. Remedial, for academically retarded

____b. Special education, for mentally retarded

____c. Adult rehabilitation

3. Degree of services:

____a. Intensive (one 45 minute session daily plus adult education and/or individual work with instructor)

____b. Moderate (one 45 minute session daily)

____c. Infrequent (one, two, or three 45 minute sessions weekly)

____d. Other (specify)

4. VF instructor's recommendation of services needed by client in VF.

____a. Intensive

____b. Moderate

____c. Infrequent

____d. Other (specify)

5. Comments

Type and Degree of Social Work, Vocational Counseling, and Psychotherapy Services Rendered

Client Name_____MSW_____

Date_____

To be filled out by the social worker at each client staffing.

A. Social Services

1. Casework

____a. Intensive (client seen weekly in individual sessions)
____b. Moderate (client seen only when needed, usually less than once a week)
____c. Infrequent (client seen no more than five times in 16 weeks)

2. Group Work

____a. Client seen in regularly scheduled group meetings
____b. Client not scheduled for group meetings

3. Casework with family or relatives

____a. Intensive family treatment (6 or more interviews with relatives)
____b. Moderate family treatment (relatives seen 3 to 5 times in 16 weeks)
____c. Infrequent family treatment (family or relative not seen more than once or twice in 16 weeks)

4. Vocational counseling (5 or more)

____a. Client had scheduled interviews with his counselor
____b. Client seen 3 or 4 times during 16 weeks by counselor
____c. Client saw counselor only when making new plans

5. Counseling with family

____a. Counselor saw the family regularly during the evaluation and training period (5-6 times)
____b. Counselor saw family sporadically or not at all during the evaluation period (less than 5-6 times)

6. Psychotherapy

____a. Client did receive psychotherapy during evaluation period
____b. Client did not receive psychotherapy during evaluation period
____c. One of those with whom client resides received psychotherapy during evaluation period
____d. One of those with whom client resides did not receive psychotherapy during evaluation period

B. Disposition of client (write in)

Type and Degree of Occupational Therapy Services Rendered

To be filled out by occupational therapist at time of each client staffing.

Client name_____Date_____

1. Client has has not been receiving OT services.

2. Type of services

____a. Activities of daily living

____b. Home management

____c. Check out and training for upper extremity amputees

____d. Improve coordination

____e. Increase muscle strength

____f. Increase range of motion

____g. Increase tolerance

____h. Psychological

3. Degree of services

____a. Intense (one session of varying length daily, with therapist or aide in constant supervision)

____b. Moderate (one session of varying length daily, with therapist or aide offering close but not constant supervision)

____c. Infrequent (one session of varying length daily with therapist or aide offering only periodic checks)

4. Comments

Type and Degree of Music Therapy Services Rendered Clients

Client name_____Date_____

____8th ____16th ____24th ____32nd ____40th ____final

Type of therapy

1. ____Client does not receive music therapy
2. ____Group therapy, daytime
3. ____Individual therapy, daytime
4. ____Music/recreation, evening
5. ____Group and individual
6. ____Group and music/recreation
7. ____Individual and music/recreation

Degree of therapy

1. ____5 or more contacts per week
2. ____2-4 contacts per week
3. ____1 contact per week
4. ____none

Comments (Specify)

Type and Degree of Speech and Hearing Services Rendered

Client name_____Date_____

Therapist_____

(All clients are routinely screened for both services at intake)

A. Type of services

1. ____1. Client does receive speech therapy.

   ____2. Client does not receive speech therapy.

2. ____1. Client does receive hearing therapy.

   ____2. Client does not receive hearing therapy.

B. Degree of services

3. ____1. Intensive (4--30 minute sessions weekly)

   ____2. Moderate (2--30 minute sessions weekly)

   ____3. Infrequent (1--30 minute session weekly)

C. Comments (write in)

Type and Degree of Personal and Social Adjustment Services Rendered

Client name_____ _____Date_____

To be filled out at time of each client staffing.

1. Client has has not been receiving PSA services.

2. Type of services

____a. Hygiene and grooming (includes grooming and general appearance, personal hygiene, appropriateness of dress, and manners)

____b. Personal and employee functioning (includes self-concept, planning one's time, preliminary employment procedures, independent travel, and budgeting income)

____c. Work environment traits (includes work relationships and attitudes toward work)

3. Degree of services

____a. Intensive (two or three 30 minute sessions weekly plus frequent informal contact)

____b. Moderate (two or three 30 minute sessions weekly)

____c. Infrequent (one 30 minute session weekly or less)

4. Comments

Type and Degree of Physical Therapy Services Rendered Clients

Client name_____ Date_____

_____8th _____16th _____24th _____32nd _____40th _____final

Type of therapy (check one most time spent on)

1. ____Client does not receive therapy
2. ____Functional (ADL)
3. ____Mobilization (Maintaining joint range of motion)
4. ____Modalities (Heat or cold, whirlpool)
5. ____Gait training
6. ____General conditioning (strengthening)
7. ____Further testing (intensive)

Degree of therapy

1. ____Intensive
2. ____Moderate
3. ____Infrequent

Comments (Specify)

Group Meeting Form

1. Client's name_____Date_____

2. Relative attending_____

3. Participation in group:

   a. Active
   b. Moderately active
   c. Passive
   d. Very passive

4. Level of interaction in the group:

   a. Superficial
   b. Moderately reactive
   c. Reactive
   d. Reactive and introspective

5. Therapeutic techniques used by the worker:

   1. Interpretation
   2. Demonstrating behavior
   3. Supportive
   4. Education
   5. Reinforcement

6. Is relationship pathological:

   Yes_____ No _____

7. Level of relationship worker feels the relative has toward him

   -3 -2 -1 0 +1 +2 +3

8. Relative's feelings about group

   -3 -2 -1 0 +1 +2 +3

9. Group's feelings about relative

   -3 -2 -1 0 +1 +2 +3

APPENDIX B--Evaluator's Rating Scales

This appendix lists the evaluator's rating scales used at the 3rd, 8th, 16th and final weeks. The same scales were used by employers for clients who were working. Only a description of scales is presented here. Persons interested in using the scales may obtain instructions for this use from the Delgado Rehabilitation Center.

Scale	Sub-Scale
1.-3. GENERAL APPEARANCE	1. Dress 2. Grooming 3. Posture
4. APPLICATION OF INSTRUCTIONS	a. Application of Demonstrated Instructions b. Application of Oral Instructions c. Application of Written Instructions d. Generalization
5. COMPREHENSION & RETENTION	a. Comprehension--Job as a Whole b. Comprehension--Parts of the Job c. Retention--Job as a Whole d. Retention--Parts of the Job
6. WORK TRAIT COMPONENTS	a. Organization of Work b. Initiative c. Perseverance d. Completion of work
7. WORK TOLERANCE	a. Physical--Full Time b. Physical--Part Time c. Emotional--Full Time d. Emotional--Part Time
8. SAFETY CONSCIOUSNESS	a. Seriousness about Safety b. Compliance with Rules c. Use of Equipment d. Avoidance of Hazards
9. ADJUSTMENT	a. Cooperation with co-workers, one to one b. Cooperation with co-workers, group c. Cooperation--Supervisor d. Adaptability--Assigned tasks

Scale		Sub-Scale
10. VOCATIONAL OBJECTIVE		a. Discussion b. Realism c. Modification d. Intent
11.-12 VOCATIONAL PERFORMANCE	11-12	a. Coordination
	11-12	b. Interest
	11-12	c. Use of Tools and Equipment
	11	d. Accuracy and Neatness
	12	e. Time

GENERAL APPEARANCE

Dress

This refers to the appropriateness, neatness, cleanliness, and state of repair of the client's clothes and shoes.

Grooming

This refers to hair, fingernails, teeth, face, breath, and body odors.

Posture

This refers to how the body and limbs are held or carried in various positions when standing, sitting, or walking.

APPLICATION OF INSTRUCTIONS

General Information

This scale refers to the client's ability to apply instructions in an orderly and sequential manner. Quality and quantity of production are not considered here.

COMPREHENSION AND RETENTION

This scale refers to client's ability to understand and retain the job as a whole and in its parts in a manner satisfactory to the instructor and the requirements of the task.

Instructions are given as in the Application Scale, but here concern is with the thought process that necessarily precede application.

Retention refers to the amount of information remembered, without further information, over a lapse of time period usually encountered in such a task. Average lapse of time is that for which a person should remember the information on a job.

WORK TRAIT COMPONENTS

Criteria below are applicable to activities the client knows how to do and those he is learning to do.

Organization of Work

This refers to client ability to decide between priorities of different demands, orderliness, planfulness, and assignment of appropriate time to different aspects of the job.

Initiative

This refers to how well a client begins an assignment without some direction, assuming he already knows what to do.

Perseverance

This refers to how well the client stays with an activity.

Completion of Work

This refers to the proportion of work completed as a result of perseverance irregardless of time.

WORK TOLERANCE

This refers to the client's ability to perform physically and emotionally the actual work activity. Physical and emotional work tolerance are compared to those of individuals who are doing similar activity in the world of work. Work tolerance ability is divided into four categories and defined as follows:

Competitive--ability to tolerate contending with others in performing all tasks required in an occupation.

Selective--ability to tolerate contending with others in performing only a selected task or tasks within an occupation.

Semi-Sheltered--ability to tolerate performing a task or tasks in a non-competitive work activity within a competitive work environment.

Sheltered--ability to tolerate performing a task or tasks in a non-competitive work activity within a non-competitive work environment.

The specific work tolerance ability or abilities of the client should be listed and explained under comments. Extreme physical and/or emotional conditions which the client could tolerate should also be explained under comments.

Physical--Full-time

This refers to the client's ability to tolerate physically full-time employment in one or more of the work tolerance ability categories.

Physical--Part-time

This refers to client's ability to tolerate physically part-time employment in one or more of the work tolerance ability categories.

Emotional--Full-Time

This refers to client's ability to tolerate emotionally full-time employment in one or more of the work tolerance ability categories.

Emotional--Part-Time

This refers to client's ability to tolerate emotionally part-time employment in one or more of the work tolerance ability categories.

SAFETY CONSCIOUSNESS

This scale refers to a client's ability to remain free, and to help others remain free from harm, injury, or undue danger or risk involving assigned tasks.

Seriousness about Safety

This refers to observed behavior indicating seriousness about safety.

Compliance with Rules

This refers to compliance with established safety rules and regulations.

Use of Equipment

This refers to the use of equipment for intended purposes.

Avoidance of Hazards

This refers to avoidance of actual and potential hazards.

ADJUSTMENT

This refers to cooperation with co-workers, individually and in a group, and client's cooperation with supervisors. Adaptability to work activity itself is also a measure of adjustment. In rating this last criterion, consider client's ability to attain satisfaction from work rather than ability to tolerate assigned tasks.

Cooperation with co-workers, one to one

This refers to how the client cooperates with a fellow worker in a one-to-one relationship.

Cooperation with co-workers, group

This refers to how the client cooperates with fellow workers in a one-to-one group relationship.

Cooperation--Supervisor

This refers to how the client cooperates with supervisors.

Adaptability--Assigned tasks

This refers to client's ability to attain work satisfaction.

VOCATIONAL OBJECTIVE

Ratings are made against absolute sub-scale standards rather than in relation to whether the client competes with others because he is not working on a job in industry.

Discussion

This refers to the client's willingness to discuss a vocational objective.

Realism

This refers to whether the client's vocational objective agrees with his aptitudes and/or limitations. It is expected that the client knows what tasks are involved in this vocational objective.

Modification

This refers to a client's attitude regarding an alteration or a complete change in his vocational objective.

Intent

This refers to how serious a client is about a vocational objective.

VOCATIONAL PERFORMANCE

This refers to how well a job is done and how much it produces. The evaluator, in rating the sub-scales below, should look at both the process by which a product is completed and the finished product itself.

The first three sub-scales are common to both QUALITY PERFORMANCE and QUANTITY PERFORMANCE, and refer to the process by which a product is completed. They are rated twice, once for influence on quantity and once for influence on quality.

Coordination

This refers to the client's ability to use fine and/or gross body movements, as required, and the ability to coordinate these movements as necessary for the job.

Interest

This refers to the amount of job satisfaction indicated by the client and how much he appears to prefer one kind of work over another when given opportunity for choice.

Use of Tools and Equipment

This refers to whether the client chooses proper tools and equipment for a job, and whether these are used efficiently and effectively.

Accuracy and Neatness

This is strictly a QUALITY sub-scale concerned with accuracy and neatness of the finished product.

Time

This is strictly a QUANTITY sub-scale concerned with the time required to complete a given unit, or the number of units completed within a given time.

APPENDIX C--Questionnaire For Follow-Up Interviews

(Interviewer should ask client at beginning of interview to avoid telling if his family was in group therapy. Explain the experimental nature of this study and why this avoidance is necessary.)

1. Client's Name _____
2. Client's Address _____
3. I.D. Number _____

3A. Who was present for interview:

1. ____Client only
2. ____Client and relative (Mother or Father)
3. ____Client and non-relative
4. ____Other (Specify) _____

4. Living Arrangements

1. ____Alone
2. ____With parents
3. ____Wife
4. ____Relatives other than parents or wife
5. ____Other non-relative (Specify)_____

5. Current Status: Check all that apply.

1. ____Working full-time
2. ____Working part-time (works when called)
3. ____In school or training
4. ____Unemployed and not in school or training

5A. How many times has client seen counselor or other rehabilitation personnel since leaving the center?

1. ____None
2. ____Once or twice
3. ____Three or four times
4. ____Four to six times
5. ____Seven to ten times
6. ____Ten or more, write in No._____

WORK HISTORY SINCE LEAVING DELGADO REHABILITATION CENTER
(Start with most current or recent job and work backwards--obtain information on all jobs held since leaving Center. See codes below for various information to be obtained. If client has never worked mark "0" in all columns and on all lines. Also use zero to show that client has not had jobs listed below; for example, if only one job held code other spaces zero.

Current Job: (Use client's description for job)	Full- or Part-time Code	Salary per week	Length of time on job
(6)	(7)	(8)	(9)
Last previous job:			
(10)	(11)	(12)	(13)
Next most previous job:			
(14)	(15)	(16)	(17)
Next most previous Job:			
(18)	(19)	(20)	(21)

Code: 1 = Full time
2 = Part time (less than 30 hrs. per wk)

Code for Salary per week (if paid on hourly basis multiply number of hours client usually works per week)

0 = Not applicable
1 = 0 - 15
2 = 16 - 30
3 = 31 - 45
4 = 46 - 60
5 = 61 - 75
6 = 76 - 90
7 = 91 - 105
8 = 106 - 120
9 = over 121 and Specify_____

Code for length of time on job:

0 = Not applicable
1 = less than 4 wks
2 = 5 thru 11 wks
3 = 12 thru 18 wks
4 = 19 thru 24 wks
5 = 25 thru 30 wks
6 = 31 thru 36 wks
7 = 37 thru 42 wks
8 = 43 thru 48 wks
9 = 49 or more Specify_____

22. Code for length of time on longest job held:

Code:

0 = Never worked
1 = less than 4 wks
2 = 5 thru 11 wks
3 = 12 thru 18 wks
4 = 19 thru 24 wks
5 = 25 thru 30 wks
6 = 31 thru 36 wks
7 = 37 thru 42 wks
8 = 43 thru 48 wks
9 = 49 or over (Specify)_____

23. Total number of jobs held:_____

Code: 0 = none
1 = one
2 = two
3 = three
4 = four
5 = five
6 = six or more

Type of school or on-the-job training attended since leaving Delgado Rehabilitation Center. This section is to obtain a history of all schooling since leaving Delgado. If only one school, enter this and code others "zero." Code similar to jobs with any current school listed first, then most recent, etc. If client has not attended school, code all columns and lines "0." (See codes below for various information to be obtained.) If only 1 school attended, code others zero or if only 2 attended code others "0."

Current School (write in):

_____	Type of School	Length of time attended	Graduated or per cent of course completed	Reason for leaving	Where went after school
(24)	(25)	(26)	(27)	(28)	(29)
Most Recent School:					
(30)	(31)	(32)	(33)	(34)	(35)
Next most recent school:					
(36)	(37)	(38)	(39)	(40)	(41)

Code for Type of School:

0 - Not Applicable - Never in School

1 - High School or College

2 - Trade School

3 - On the Job Training

4 - Other, Specify:_____

Code for Length of Time in School:

0 = Not Applicable - Never in School
1 = less than 4 wks
2 = 5 thru 11 wks
3 = 12 thru 18 wks
4 = 19 thru 24 wks
5 = 25 thru 30 wks
6 = 31 thru 36 wks
7 = 37 thru 42 wks
8 = 43 thru 48 wks
9 = 49 and over Specify____

Code for Graduated or per cent completed:

0 - Not Applicable - Never in School
1 - Graduated or completed course
2 - Completed as much of course as possible since leaving Delgado and still in school
3 - Did not complete school but completed 75 per cent or more of required work before leaving
4 - Did not complete school but completed 50 per cent or more of required work before leaving
5 - Completed less than 50 per cent of work before leaving

Code for Reason for Leaving:

0 - Not Applicable - Never in School
1 - Still in School
2 - Financial problems
3 - Family problems
4 - Completed course work
5 - Other (Specify)_____

Code for Where Went after School:

0 - Not Applicable - Never in School
1 - Still in School
2 - To work
3 - To other school
4 - Home to Family
5 - Other (Specify)_____

Progress in School - (If never in school, code "0" in each line and column. Obtain these data from school and teachers.)

Current School	Grades (See Code)	Faculty Evaluation (See Code	Student Evaluation of Satisfaction
_____	(42)	(43)	(44)
Next Most Recent School			
_____	(45)	(46)	(47)
Next Most Recent School			
_____	(48)	(49)	(50)
Next Most Recent School			
_____	(51)	(52)	(53)

Code for Grades: (Code average of student's grades while in School)

0 = Not in school
1 = A
2 = B+
3 = B
4 = C+
5 = C
6 = D or below

(NOTE: This is not consistent classification system)

(If school gives no grades, use opinion of teachers as on adjective list below):

0 - Not in School
1 - Considerably above average
2 - Somewhat above average
3 - A little above average
4 - Average
5 - A little below average
6 - Considerably below average or failing

Code for Faculty Evaluation: (to be obtained from teachers) Includes not only grades, but <u>social and overall</u> adjustment.

0 - No information or not in school
1 - Excellent
2 - Superior
3 - Average
4 - Slightly below average
5 - Much below average

Code for Student Evaluation of own overall program:

0 - No information or not in school

1 - Excellent

2 - Superior but not excellent

3 - Average

4 - Slightly below average

5 - Much below average

VOCATIONAL PROGRESS IN GENERAL
(These questions to be asked the client)

54. With regard to your satisfaction with your vocational progress are you . . .

1 - Very much satisfied

2 - A little more satisfied than dissatisfied

3 - A little more dissatisfied than satisfied

4 - Very much dissatisfied

5 - No opinion or not applicable

55. With regard to your current earnings do you think they are:

1 - More than you expected

2 - A little more than you expected

3 - About what expected

4 - A little less than you expected

5 - A lot less than you expected

6 - No opinion or not applicable because not working

56. Regarding the amount of future earnings you will get, do you think they will be:

1 - More than you expected before you went to the Center

2 - A little more than you expected before you went to the Center

3 - About what is expected before you went to the Center

4 - A little less than you expected before you went to the Center

5 - A lot less than you expected before you went to the Center

6 - No opinion or not applicable because not working

RANK THE FOLLOWING FACTORS IN TERMS OF HOW THEY ARE INFLUENCING YOUR VOCATIONAL PROGRESS. PUT THE FACTOR OF MOST INFLUENCE IN NUMBER ONE (1), THE NEXT IN NUMBER TWO (2), etc.

RANK

57. _____1 - The experience I had at Delgado
58. _____2 - My counselor's work with me
59. _____3 - My family's attitude
60. _____4 - Other, (Specify)_____
61. _____5 - No opinion

62. Do you think your relationship with your family is

    0 - No opinion or no information

    1 - A lot better than before you started at Delgado

    2 - A little better than before you started at Delgado

    3 - A little worse than before you started at Delgado

    4 - A lot worse than before you started at Delgado

63. How do you think what your family expects of you now compares to what they expected of you before you went to Delgado?

    0 - No information or no opinion

    1 - They understand me a lot better

    2 - They understand me a little but there has been no great change

    3 - It appears they have a little less understanding but no change has occurred.

    4 - They seem to have a lot less understanding than they did before I went to Delgado

TELL ME HOW YOUR FAMILY UNDERSTANDS YOU NOW ON EACH OF THESE QUESTIONS IN RELATION TO HOW THEY UNDERSTOOD YOU WHEN YOU WENT TO DELGADO:

Topic	No opinion does not apply (0)	Understand a lot better (1)	Understand a little better (2)	Understand a little less but not much (3)	Understand a lot less (4)
64. My disability or the problem for which I was sent to the Center	_____	_____	_____	_____	_____
65. How much work I can do	_____	_____	_____	_____	_____

	Topic	No opinion does not apply	Understand a lot better	Understand a little better	Understand a little less but not much	Understand a lot less
66.	My personality	_____	_____	_____	_____	_____
67.	My feelings about being handicapped	_____	_____	_____	_____	_____
68.	The kind of work I can do	_____	_____	_____	_____	_____
69.	My social activities	_____	_____	_____	_____	_____
70.	What I am doing at school	_____	_____	_____	_____	_____
71.	My relation with the opposite sex	_____	_____	_____	_____	_____
72.	How much I can expect to earn	_____	_____	_____	_____	_____
73.	What I can do for myself	_____	_____	_____	_____	_____

QUESTIONS FOR CLIENTS AT HOME

75. Reason why client is not working or in school. Check all that apply.

_____0 - Not applicable client is not at home
_____1 - Unknown
_____2 - Center Recommendation
_____3 - Unemployed but looking for work
_____4 - Waiting for school to re-open
_____5 - Client's decision
_____6 - Other, Specify:_____

HOME SATISFACTION SCALE

Check the box that best shows your satisfaction with each question below about your home:

VDS = Very dissatisfied
DS = Dissatisfied
N = Neutral, neither satisfied nor dissatisfied
S = Satisfied
VS = Very satisfied

		VDS (1)	DS (2)	N (3)	S (4)	VS (5)
1.	Opportunities to say what I really feel and think	___	___	___	___	___
2.	My general family relationships	___	___	___	___	___
3.	My feelings about my mother are generally	___	___	___	___	___
4.	My feelings about my father are generally	___	___	___	___	___
5.	My feelings about my brothers and sisters are generally	___	___	___	___	___
6.	My feelings about others in the family are generally	___	___	___	___	___
7.	The part I take in my family activities	___	___	___	___	___
8.	My own interest in what the family does	___	___	___	___	___
9.	The way our family gets along together	___	___	___	___	___
10.	How well the family understands my need is	___	___	___	___	___
11.	My chance to take part in family decision-making	___	___	___	___	___
12.	How well my parents do their job as parents	___	___	___	___	___
13.	My family understanding of my disability	___	___	___	___	___
14.	The fact that I am at home	___	___	___	___	___

15. Write a description of how you feel this client is satisfied with his present family situation, being careful to support your feeling with as many objective reality factors as possible.

ALL CLIENTS CURRENTLY EMPLOYED AT THE TIME OF THE INTERVIEW SHOULD COMPLETE MINNESOTA SCALE OF VOCATIONAL SATISFACTION. ALL CLIENTS CURRENTLY IN SCHOOL OR ON-THE-JOB TRAINING SHOULD COMPLETE THE SCHOOL SATISFACTION SCALE (attached).

ALL CLIENTS WHO ARE NOT IN SCHOOL OR ON A JOB SHOULD BE ADMINISTERED THE HOME SATISFACTION SCALE. IF IN THE INTERVIEWER'S OPINION THE CLIENT DOES NOT READ WELL ENOUGH TO COMPLETE THESE SCALES, THEY SHOULD BE READ TO HIM AND COMPLETED BY THE INTERVIEWER.

ALL EMPLOYERS OR MAJOR SCHOOL TEACHERS OR SUPERVISORS SHOULD COMPLETE EVALUATOR'S RATING SCALES.

FOR CLIENTS WITH WORK HISTORY - HAVE CURRENT OR MOST RECENT EMPLOYER COMPLETE ALL EVALUATOR'S SCALES.

FOR CLIENTS IN SCHOOL MAJOR TEACHER OR SUPERVISOR SHOULD COMPLETE EVALUATOR SCALES ON:

1. General appearance
2. Application of Instructions
3. Comprehension and Retention
4. Work Traits
5. Adjustment

IF IN TRADE SCHOOL OR ON-THE-JOB TRAINING ALSO COMPLETE EVALUATOR'S SCALES ON

6. Vocational Objective
7. Vocational Performance - Quality
8. Vocational Performance - Quantity

(The evaluator scales may best be completed by explaining them to employer, teacher and supervisor and asking enough questions to permit interviewer to complete these scales.)

IF CLIENT IS NOT IN SCHOOL CODE FOR ALL "0"
IF CLIENT IS IN SCHOOL OR HAS BEEN IN SCHOOL, FILL OUT THE FOLLOWING:

SCHOOL SATISFACTION SCALE

Check the box that best shows your satisfaction with each question below about your school:

0 = Not in school
VDS = Very dissatisfied
DS = Dissatisfied
N = Neutral, neither satisfied nor dissatisfied
S = Satisfied
VS = Very Satisfied

	(0)	VDS (1)	DS (2)	N (3)	S (4)	VS (5)
1. Opportunities to learn at school	___	___	___	___	___	___
2. The social relationships	___	___	___	___	___	___
3. My grades	___	___	___	___	___	___
4. How other students feel about me	___	___	___	___	___	___
5. Preference for being in school instead of working	___	___	___	___	___	___
6. Preparation for making a living	___	___	___	___	___	___
7. How well what I am studying or have studied fits my abilities	___	___	___	___	___	___
8. How busy school keeps (kept) me	___	___	___	___	___	___
9. How the school is (was) operated	___	___	___	___	___	___
10. How school fits me for work later	___	___	___	___	___	___
11. How well the teachers understand (understood) my needs	___	___	___	___	___	___
12. How much responsibility I have for my own learning	___	___	___	___	___	___
13. The competence of my teachers	___	___	___	___	___	___

	(0)	VDS (1)	DS (2)	N (3)	S (4)	VS (5)
14. How my family feels (felt) about my being in school	___	___	___	___	___	___
15. The kinds of students that are (were) in school with me	___	___	___	___	___	___
16. The length of time my course of study requires (d)	___	___	___	___	___	___
17. The amount of money I expect (ed) to make when I finish	___	___	___	___	___	___
18. What participation I have (had) in decisions what I should be taught	___	___	___	___	___	___
19. The number of friends I made in school	___	___	___	___	___	___
20. How my training fits my disability	___	___	___	___	___	___

APPENDIX D--Participation in Therapy by Relatives

This project did not have the purpose of studying variations in therapy and their influence on outcome or the relation between relatives' characteristics and their participation in therapy. The information in this appendix is thus not a part of the study as originally planned, but is presented for the value it may have in comparison with later studies. At this writing a further study of group therapy with relatives is planned to learn which types may be most successful. The data in this appendix are background for this later study.

The small size of the group studied limits the conclusions.

For almost three-fourths of the clients, the mother was the relative who attended therapy most regularly; however, fathers attended for about half of the experimental group. Attendance of both parents was higher among the maximum exposure group. When both parents attended, the family tended to be present at a larger number of therapy sessions than when one family member attended. Though relatives' attendance showed no particular pattern, the therapist's most frequent comment about relatives' participation was to describe it as "active."

The distribution of relatives according to the number of therapy sessions attended is shown in Table 1-D below.

TABLE 1-D

No. of Meetings Attended	Experimental 1st Relative	Experimental 2nd Relative	Exposed Experimental 1st Relative	Exposed Experimental 2nd Relative	Maximum Exposed Experimental 1st Relative	Maximum Exposed Experimental 2nd Relative
0	7	6	0	3	0	1
1-2	6	7	7	7	0	5
3-4	3	3	2	3	0	3
5-6	6	2	8	2	7	2
7-8	4	2	4	2	4	2
9-10	4	0	4	0	4	0
11+	8	5	8	5	8	5
N/A	0	14	0	11	0	5
TOTAL	39	39	33	33	23	23

Less than 10 per cent of the relatives attended all meetings, or any group of meetings in sequence. The most characteristics pattern of attendance was an irregular one although about one-quarter to one-third of the relatives missed less than three meetings. Active participation was recorded for more than three-quarters of all relatives and for more than 90 per cent of first relatives in the exposed and maximum exposed groups. In the maximum exposed groups, 70 per cent of the second relatives also participated actively. About two relatives in ten were described as participating deeply. About six to seven in ten were described as participating somewhat and one in ten was described as not participating.

The therapist described his techniques as "mixed" in six out of ten instances. The next most frequent therapeutic device was support and interpretation each of which were said to be used about 15 per cent of the time. Demonstration, educative techniques and reinforcing activities were used quite rarely. In no instance did the therapist feel his relationship to the relatives was pathological. About one-half of the relatives were considered to have strong relationships to the therapist and none were considered to have negative relationships. Though four to five out of ten were considered to have strong relationships to the group, four out of ten were also considered to be neutral. The feeling of the group to the relative was generally rated as reciprocal to that the relative had to the group.

The study of the relation of relatives' characteristics to the foregoing variables relating to therapy showed only a few definite relationships.

Older relatives from New Orleans, with ninth or twelfth grade education were most reactive and appeared to relate better to the therapist. A larger proportion of interpretative sessions appear to have been received by Catholics, and by the least and best educated relatives. Relatives from the skilled technical occupations group had best attendance, highest level of interest and were better motivated.

APPENDIX E--Additional Analysis Relating to the Study

This appendix is in three sections:

1. Comparison of Groups on Family Relationships Before the Study.
2. Influences of Therapists on Selected Criterion Variables.
3. Data on Marital Role Relationships; The Effectiveness of the Rehabilitation Process in Changing Behavior of Families that have a Disabled Member.

Comparison of Groups on Family Relationships Before the Study

As the data given earlier shows, there was a significant difference in scores for clients in the experimental and control groups on the Home Satisfaction Scale, after the relatives of the experimental clients had received group therapy. This score was considered to represent the impact of the group therapy variable on family relationships. To confirm this more conclusively, an effort was made to establish the fact that the clients involved in therapy were, in fact, not different from the control group at the initiation of therapy, and thus that the differences at the end of therapy were more likely to be the effect of the therapy and not due to something else.

Because no Home Satisfaction Scores were available on clients before they started therapy, scores on an analogous scale were used. This scale, referred to as the "Family Relationship Scale," was developed for the dissertation of Dr. Marvin Thames.[1] The conceptual similarity of his scale to the "Home Satisfaction Scale" appeared to permit this analogous comparison; in addition, the 28 experimental clients and the 23 control clients in Dr. Thames' study of family role patterns were all clients in this study.

The "Family Relationship Scale" was made up of 50 items that measured four aspects of family relationships, role relationships, family decision-making patterns, family communication patterns, and other family interactions. These concepts were operationalized in statements about family behavior regarding child rearing, household tasks, recreational activities, economic activities, and expressed values. Because relatives could respond in varying degrees in describing their family behavior on these scales, a numerical score on each concept was obtained. The reliability of this scale was .80.

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[1]Marvin E. Thames, "The Effectiveness of Group Therapy in Changing Family Role Patterns toward Disabled Members," Unpublished Doctoral Dissertation, Louisiana State University, 1970.

As Table 1-E (see page 101) and Table 2-E below show, though there were significant differences found, most of these were because the control group was higher. In only two instances, for example, was one of the experimental groups significantly higher than the control. These findings would appear to indicate that if the experimental and control groups were not matched on family relationships prior to the study, differences favored the control group.

TABLE 2-E

Variable	Groups Compared		Signif.Level
Total Score	Control	Max.Expos. Experimental	5%
Family Solidarity	Control	Max.Expos. Experimental	5%
Decision Making	Expos.Exper.	Control	5%
	Max.Expos.Exper.	Control	5%
Communication Patterns	Control	Expos.Experimental	1%
	Control	Max.Expos.Experimental	1%
Other Interaction	Control	Expos.Experimental	5%
Other Interaction	Control	Max.Expos.Experimental	1%

Influences of Therapists on Selected Criterion Variables

To learn what influences, if any, variations from therapist to therapist had on the two criterion variables that were obtained on all experimental clients, two other analyses were completed.

Correlations between the number of therapy sessions and these criterion variables were computed; therapists were then compared with regard to whether there were significant differences in mean scores on these variables.

Because of the size of the sample, this analysis was limited to two variables, the change scores in evaluators' ratings, and the scores on the Home Satisfaction Scale. These were the only variables on which scores were obtained on all experimental clients, and when divided by therapists, the 36 clients in the follow-up study were in three groups as follows: therapist 1=14; therapist 2=10, and therapist 3=12.[2] The following analysis used data on all 36 clients including some (3)

[2]Because of the size of the sample, these findings must be considered at best suggestive and must be interpreted with much caution. Considerable further research is necessary before these findings can be considered confirmed.

TABLE 1-E--Means and Standard Deviation of Control and Experimental Groups Based Upon "Before Scores" on Family Relationships

Scale	Control Group Mean	S.D.	Experimental Group Mean	S.D.	Exposed Experimental Group Mean	S.D.	Max.Expos.Experimental Group Mean	S.D.
Total	139.52	18.92	132.93	16.95	134.19	17.89	131.65	17.44
Family Solidarity	43.43	6.30	43.86	6.50	40.47	6.04	39.94	6.25
Decision Making	36.74	8.91	34.93	7.63	41.71	6.25	40.41	5.84
Communication Patterns	33.96	3.54	31.64	3.89	28.06	4.51	28.94	4.76
Other Role Patterns	27.70	3.65	25.29	4.50	23.14	5.64	22.35	5.53
Sample Size	23		28		21		17	

whose relatives had no therapy sessions.

Change Scores:

Only those change scores in evaluator's rating which were significantly higher for the experimental group were analyzed. This included work traits, adjustment, vocational objective and quantity of work.

Correlations between the number of therapy sessions and change scores on these four scales were significantly different in only one instance from therapist to therapist. Therapist 3 had significantly lower correlation on the work trait scale than other therapists. There were no significant differences in mean change scores from therapist to therapist on any of these four scales.

Home Satisfaction Scores:

The number of therapy sessions of therapist 1 had a significantly lower correlation with total scores on the Home Satisfaction Scale than therapists 2 and 3. These correlations were .11, .44, and .38 respectively for therapist 1, 2 and 3.

Mean scores for the home satisfaction scale for the clients who had been in therapy with the various therapists showed significantly higher scores for therapist 3 when compared to therapist 1, but not when compared to therapist 2. Mean scores for the therapists, in order, were 50.9, 54.8 and 58.6.

The meaning of these differences is difficult to interpret. It may have been due to the fact that therapist 1 began the therapy and had to work out some methods to improve attendance that other therapists benefited from; it may have been associated with the more youthful composition of therapy groups two and three. Further research on a larger sample is needed to confirm and clarify this and other findings.

Data on Marital Role Relationships; The Effectiveness of the Rehabilitation Process in Changing Behavior of Families That Have a Disabled Member.[3]

The family has been conceptualized as an institution responsible for certain societal functions and as a small group or primary group based on sentiment and interaction. As an institution, the family is intricately organized internally into paired positions of husband-father, wife-mother, son-brother, and daughter-sister. Norms prescribing the appropriate role behavior for each of these positions specify how reciprocal relations are to be maintained as well as how role behavior may change with changing ages and abilities of the occupants of these

[3]This is a report on a companion study carried on during the original project. For more detail, the reader can write to the project director, John P. Galloway.

positions. This role theory model provides the concepts necessary to measure family change.

Illness or disability of a family member is a stressful event within the family as it precipitates a situation for which the family has had little or no prior preparation and therefore results in a reassignment of roles that is problematic. Role consensus, role frustration, role inadequacy, role conflict, and role superfluity can develop that cause stress and strain to develop within the family.[4] This stress and strain causes an alteration in family role relationships, communication patterns, decision-making characteristics, and various family activities.

This research focused on interactional processes in a family that had an ill member going through a rehabilitation program. The importance of the research rests with (1) bringing together sociological knowledge of illness within the family with concepts of rehabilitation and, (2) proposing to operationalize and measure family change as a result of rehabilitation efforts thereby adding knowledge in the fields of sociology and rehabilitation.

The research objective of this study was to assess changes in family role relationships, communication patterns, decision-making characteristics, activities related to child rearing, household tasks, and recreation and work. The general hypothesis of this study was that families with disabled members who have been labeled as ill by participating in a rehabilitation program, experience more change in the variables delineated above than families who do not have a disabled member or who have a disabled member who is not now labeled as ill as indicated by receiving services at a rehabilitation center.

The subjects for the research came from two different divisions of Delgado Junior College, New Orleans, Louisiana. One group consisted of families of all clients attending the Delgado Rehabilitation Center and the other group was composed of a random sample of students attending the Delgado Junior College and reflected an equal proportion of students from each academic area of concentration.[5]

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[4]For an elaboration of the concepts see: Alvin L. Bertrand, "The Stress-Strain Element of Social Systems; A Micro Theory of Conflict and Change," Social Forces, Vol. 42, (October, 1963), and Roland J. Pellegrin and Frederick L. Bates, "Congruity and Incongruity of Status Attributes Within Occupations and War Groups," Social Forces, Vol. 28, (October, 1959).

[5]For a description of the Delgado Junior College complex, the reader should review the material on this in the major section of this report. For further data on the characteristics of the families in each group, the reader should consult the project director as suggested in footnote 3.

Two questionnaires were utilized to gather data on the variables mentioned earlier. The first questionnaire, The Family Relationship Questionnaire, is composed of 50 items and was administered to everyone in the family over 16.[6] The second questionnaire, The Marital Role Inventory, utilizes role analysis related to member functioning within the family and was administered to the clients' or students' parents, parent surrogates, or to the husband and wife, if husband or wife was a client or student.[7]

The design used four groups with 40 families in each group to test the hypothesis. Two groups were composed of families of persons attending the rehabilitation center with one of these groups having a pre-test and pre-test interview and also a post-test and post-test interview. The other group from the rehabilitation families received only the post-test and the post-test interview. The other two groups were made up of families of students attending the junior college and the same testing and interviewing procedure was utilized with these groups. There was an eight-week interval between the pre-test and pre-test interview and the post-test and post-test interview. This time lapse was chosen because it was considered long enough for the influence of the Rehabilitation Center to be felt.

Results

These results are preliminary as analysis of the data in all groups is currently being carried out. Only two groups are reported on; the rehabilitation group and the college group (labeled the non-rehabilitation group) that had a pre- and post-test on both questionnaires.

Table 3-E shows a slightly greater improvement for the rehabilitation group in mean couple discrepancy scores, as obtained from the Marital Roles Inventory, when compared to the non-rehabilitation group.

TABLE 3-E--Comparison of Mean Discrepancy Scores on Marital Roles Inventory Questionnaire

Pre-Rehabilitation Families N = 13 Mean = 51	Pre-Non-Rehabilitation Families N = 15 Mean = 49
Post-Rehabilitation Families N = 13 Mean = 48	Post-Non-Rehabilitation Families N = 15 Mean = 48

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[6] This instrument was developed by Dr. Harris K. Goldstein, co-author of this report and can be obtained by writing to him directly. For a study reporting results obtained by utilizing this questionnaire see Marvin E. Thames, "The Effectiveness of Group Therapy in Changing Family Role Patterns Toward Disabled Members," Unpublished dissertation, Louisiana State University, Baton Rouge, Louisiana, January, 1970.

[7] This instrument is discussed and explained in more detail in Nathan Hurvitz, Marital Roles Inventory Manual (Beverly Hills, California: Western Psychological Services, 1961).

The tentativeness of these results prohibit any conclusions of a more permanent nature as some cases had to be omitted because of technical difficulties in data compilation that are being corrected at the time of this printing. It is doubtful, however, that there is any significant difference in marital strain between the two groups as determined by this questionnaire. Further analysis of the data taking into consideration family characteristics variables and cases where the interviewer commented on the family's inability to understand how to complete the questionnaire might prove to be more conclusive.

Below is a comparison of the same groups on data obtained from the Family Relationship Questionnaire:

TABLE 4-E--Comparison of Mean Scores on the Family Relationship Questionnaire

Variables	Pre-Rehabilitation Families		Non-Rehabilitation Families	
	Means	(N=32)	Means	(N=33)
Role Relationships	34		34	
Decision-Making	34		34	
Communication Patterns	27		26	
Other Interactional Patterns	21		20	
Total Score	118		117	
	Post-Rehabilitation Families		Non-Rehabilitation Families	
	Means	(N=30)	Means	(N=31)
Role Relationships	38		37	
Decision-Making	35		35	
Communication Patterns	30		28	
Other Interactional Patterns	23		22	
Total Score	128		124	

There is more change in the rehabilitation families on the above reported variables than in the non-rehabilitation families. This difference is small and further analysis should be carried out taking into consideration such variables as family size, economic status, religion, and illness disposition.

Conclusion

Preliminary results show little differences in rehabilitation families and non-rehabilitation families in marital strain, role relationships, decision making, communication patterns, and other interactional patterns before and after a rehabilitation experience. Further analysis will be made on family characteristic variables that might modify this tentative finding.

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