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The Measurement of Some Aspects of Self Concept Related to Rehabilitation of the Physically Handicapped

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PREFACE

"The emergence of rehabilitation as a social movement may be a significant contribution of the twentieth century to human development. Each step toward freeing human potentiality from the limitations of disability contributes to the dignity and growth of all mankind." (14:1) Through accident or disease, thousands each year are faced with the problems of physical disability. While the major concern in the rehabilitation of these people is the restoration or improvement of physical function, the social and psychological effects of disability are now being recognized as weighing heavily in the total adjustment to the problems of coping with life in normal society.

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CHAPTER I

HISTORY AND STATEMENT OF PROBLEM

When the handicapped individual enters upon the rehabilitation program, it is assumed that reversal of illness or injury is no longer the major aim, but rather adjustment to remaining disabilities. (4:1; 54:2-3) There are many interpersonal as well as individual factors involved.

The history of rehabilitation itself is very short. In the nineteenth century, clinical studies of children with physical disabilities by Itard, Sequin, Binet and Witmer constitute the beginnings of interest. But there was no sustained and specific interest in physical fitness before Alfred Adler, who, after first claiming that possession of inferior organs or body parts led directly to compensatory behavior by means of central nervous system connections, later postulated a drive for compensation for inferiority of any type, leading either to achievement or to neurotic will to power. Some attempts have been made to corroborate his view; results have been inconsistent. Many investigators have found that feelings

of inferiority and compensatory behavior do occur in the handicapped, but that frequency of occurrence is no greater than in the general population. (4:72, 73, 76, 80, 85; 16; 53:52, 55, 56) "It has become increasingly clear," says Myerson, "that physique per se is not central to any psychological variable and that disability directly coerces only physical behavior. . . . The prevailing view today is that this influence is exerted primarily through the psychological situation that physique helps to create for the person." (28:439)

During the present century, the stimulus of two world wars has led to an effective science of the restoration of physical function and vocational productivity, with emphasis on re-education. Since World War II, the science of somatopsychology has been slowly developing.

Until recently, rehabilitation psychology has been founded on the psychology of the non-disabled. Major contributions have been made mainly by those theorists and investigators who have studied self concept (7; 15; 25; 31; 34: Ch. X; 35:218; 41:21-25; and 53:138), motivation (4:85, 89, 110; 10; 12:323-5; 19:30-64; 22; 23: 64, 65, 80, 97, 108-111, 286; 29:444-450; 49:4; 50:9-13; 51:400; 53:65, 96, 153; 55:610-612), and deviant behavior (8:115; 21:191; 30:210). In the last five years espe-

cially, principles from these fields have given direction to the growing science of rehabilitation psychology.

Success in rehabilitation of the individual is greatly affected by his attitudes toward himself and his handicap. Good adjustment is often made to severe disability, and poor adjustment to a minor defect. (8:115) Degree of impairment does not seem to be as salient a factor as the way the impairment is perceived by the patient. (12:322, 326; 25; and 32)

A major problem in the field is prediction of success in the therapy program through assessment of related aspects of the self concept. In view of the short history of the science of rehabilitation psychology, there is a need for instruments to be used in such measurement. The problem of this study is the development of a rating scale and sentence completion test as devices for this purpose. This requires identification of the self aspects involved and construction and testing of the devices.

CHAPTER II

DEVELOPMENT OF THE DEVICES

A. IDENTIFICATION OF SELF ASPECTS INVOLVED

Extensive search of the literature revealed that there is fairly general agreement among investigators as to the attitudes that affect success in adjustment to handicap and to the therapy program. A testing instrument must elicit information regarding the adequacy of the following aspects of self.

1.) A realistic body image implies an accurate evaluation of the true degree of disability and the limitations imposed by it. It involves the centrality of the handicap or degree of preoccupation with it as a major factor affecting response to rehabilitation. (14; 22; 32; 53:140-142) The degree of ego-involvement varies with the nature of the disability (injuries to face and torso being most central), and also with the previously existing self structure into which it must be absorbed. (24:148; 53:149, 155) A strong self concept is extremely stable and resistant even to realistic change.

2.) Self acceptance in the handicapped includes acceptance of the handicap and its significance for his life in a realistic manner. The patient's estimate of his disability includes understanding of physical function, appearance, comfort, energy cost, achievement, economic security and social status. (12:326) Ideally, values and aspirations must be revised to be consistent with a new ability level, without attempt to deny or hide, and without devaluation of himself as a person of worth. (9: 784; 53:22) Self acceptance has been found by many investigators to be directly related to acceptance of others. (36; 37:2579; 46; 53:43)

3.) One of man's basic needs is for acceptance by the group. The position of the handicapped has frequently been likened to that of a member of any one of the underprivileged ethnic or religious groups. (13:104) Restrictions to his space of free movement are partly physical, partly social, (33:66-7; 53:13) and are also affected by his own attitude toward disabled persons prior to his own disablement. (7:175-188; 12:326; 33: 67) Psychological maladjustment in a person with a physical defect is generally believed to be of social origin. (14; 28:491; 33) His attitude toward others

often reflects his adjustment: resentment of curiosity and of communication regarding his defect, normal in the early stages of recovery, are mitigated by perceived acceptance by others. (6; 51:23, 27) Identification as a person with a handicap is evidenced by his social acceptance of other disabled people without devaluation, (10; 29:67-8; 53:106, 118) and also by his attitude toward help, often rejected because of loss of independence, but also because of implied status discrimination, in spite of the fact that acceptance in the degree actually needed greatly enlarges his space of free movement. (20:171, 190-191; 38:67) Anxiety regarding error or failure as seen by others constitutes another major socially induced problem. (44:228) The way the person sees himself and his disability affects his social behavior and vice versa. (53:274)

4.) "Among society's most pervasive effects on the individual is the development in him of self-regard. . . . Self-regard is related to one's conception of himself; his proper role in life; his ideals, standards, and values." (19:52; see also 12:323-5) This involves setting goals for himself that are the highest attainable by him, neither more nor less. (4:89, 110; 19:30-41; 23:64, 65,

79, 80, 89) As Meng says, "We do not think that the normal human being is the one whose motor and mental abilities function effectively, but he is the one whose psychological activities run in a harmonious way; he conquers life anew each day. This is possible for the handicapped in his own way. . . . Everyone must carve his life out of the wood he has." (4:85) Self esteem is built up as the individual copes with the problems of his situation and the obstacles in his path, thereby increasing his physical independence. (30:210; 53:65) Initial fears, experiences of failure and continuing frustration, if not excessive, can lead to learning and the development of personal attributes of perseverance, moral stamina and independence that enhance the feeling of worth. (10; 23:89, 97, 108-111, 275-286; 53:65, 153, 96) There have been a number of studies of motivation in therapy, delineating positive and negative factors involved. (49:4; 29:444-450; 50:9-10; 51:400) The concept of the self ideal is important to motivational level. (55:610, 612) A good adjustment is reached when the individual has learned "to evaluate his performance with consideration of the tools he has and the way he strives to use them, and to value his fine qualities of personality, over which he has more control than he has over perform-

ance. When he recognizes physique as an asset value over and above necessary equipment, instead of comparing his own body with a standard, he can feel pride in accomplishment rather than shame due to deviation from normality. (53:131. See also Scheerer's definition of the self-accepting person--36:175)

Instruments for prediction of success in therapy hence must elicit information regarding these aspects of the patient's self concept.

B. EXISTING INSTRUMENTS OF ASSESSMENT

Although there has been no investigation reported that is directly concerned with the relationship between these self attitudes and adjustment to rehabilitation, there have been a number of studies logically related. These have bearing on the construction of the sentence completion test and the rating scale used in the present study. Moreover, the paucity of such material supports the need for instruments for use in the rehabilitation setting.

In the 1957 edition of Annual Reviews of Psychology, Myerson reports on a number of varied studies. He states that, up to 1953, studies on crippling are uncommon and of poor quality, and from 1953 to 1957, that "personality

inventories and projective techniques continued to be interpreted in terms of what the gross scores of configurations are supposed to mean for the non-disabled populations." (28:450)

In 1956, Spivack reported her study of appraisal of self-acceptance and the development of her scale to measure self-rejection. (43) Perusal of the scale, which consists of 66 pairs of items, one self-accepting and a corresponding one self-rejecting to be categorized as "like me" or "not like me," proved profitable for the present study.

A study by Kimmel used a Figure Drawing test to assess body esteem and self-assurance, the Rorschach for anxiety and defense mechanisms, and case study for adjustment to handicap. (18)

The same year, a study by Lowenheim hypothesing that acceptance of handicap is inversely related to rigidity of personality, used the Rorschach Rigidity and Authoritarian scales and an open-end interview rated by judges; the hypothesis was upheld. (22)

T. A. T. responses indicative of needs reflecting acceptance of handicap were used by Mussen and Newman in 1958 to rate children's adjustment, as related to dependency needs and level of aspiration. (27)

Newstand investigated a projective technique using two questions: what the person would like most and what least to hear other people saying about him. She found the technique useful in determining self-image, but suggests it be used only in a battery, never alone. (31)

In 1958, Masterman reported on a study of psychological aspects of rehabilitation, and in 1961 on a follow-up study on the lasting qualities of the benefits of therapy and interfering factors. (26)

Yuker, Block, and Campbell have developed a scale to measure attitudes toward disabled persons, involving attitudes of self acceptance and rejection. They suggest that it can be used with handicapped as well as non-handicapped. They report reliability and validity testing with 1200 persons but offer no figures and deem their study ready for preliminary use only. (56) A use of this test at Indianapolis Goodwill Industries, by Dr. Arnholter, failed to support the findings of its authors in the situation in which it was employed.

Reports from Indianapolis Goodwill Industries studies in 1960 (2) and 1962 (38) indicate that use of supervisory and staff impressions of attitudes were found more satisfactory than check-lists and sentence completion tests. Their scaling method is described. (38:88)

In 1961, Crowne, Stephens and Kelly (9) reported on an investigation of correlations between a number of tests of self acceptance, basically of three types: self-discrepancy measures, adjective check lists and self rating scales, many of which are described. These authors conclude that "a test of adjustment is about as good a measure of self-acceptance as is a self-acceptance test itself." (9:110)

The Q-sort method has been used by several investigators with little agreement as to its value. In a 1961 study by Shontz, statements descriptive of types of behavior relevant to adjustment to handicap were used. (40) However, in 1962, Sundlund advises the method be dropped because of theoretical flaws. (47:63)

In 1961, Wolff reported on the use of a rating scale to evaluate the recovery of mental patients in a rehabilitation setting. The scale is brief, rating a patient on fifteen behavior characteristics, each on a five-point scale. (52) The types of behavior rated by these items are important to the present study as well. Wolff reported substantial reliability figures. To provide a criterion for validation, each patient was ranked as "doing well" or "poorly" by all personnel. In view of the reported high correlation figures, it was felt that

similar items would prove useful for our rating scale, with revisions and additions to suit our different purpose.

It seemed apparent that devices had been used to evaluate various individual aspects of the self concept in relation to rehabilitation, but that there was no single instrument to elicit information on all relevant factors. Such an instrument must be economical in time consumption, acceptable to the patient, and practical for most types of disability. In addition, assessment must be possible during the early stages of therapy for predictive purposes. In view of the recent studies, it was decided that a sentence completion test should be constructed to assess self attitudes, and a rating scale for the expression of the judgments of the therapists regarding adjustment to therapy.

C. SENTENCE COMPLETION FORM AND RATING SCALE

1.) The sentence completion test was selected as the type most likely to stimulate free expression of the patient's attitudes toward himself and his problems without interfering unduly with his therapy schedule. Ten items were devised that seemed most likely to elicit information concerning the specific aspects of the self,

discussed above, which the experience of others had indicated as important to success in the rehabilitation program. The order of the items was intended to lead the patient from expression of attitudes toward others, including other disabled individuals and those associated with him in therapy or work, to attitudes toward those closest to him, with opportunity for reflection of the attitudes of these persons as perceived by him, and finally to expression of his deeper feelings toward himself and the problems imposed by his disability, including his goals and hopes. A copy of these sentence completion items appears in the appendix (page 32), along with selected responses given by a number of patients.

2.) The rating scale consists of twenty-one items covering behavioral evidence of adjustment to handicap and to the therapy program, to be checked for each patient by the physical and occupational therapists and the social worker. Each item is scaled in five categories, although in some the desirable degree of the characteristic falls at the midpoint of the scale and in others at the end. Adjustment is made in scoring.

Some of the items in this scale were suggested by similar items in the scale used by Wolff (52), as previous-

ly mentioned. Some guidance also came from scales reported by Spivack (43) and Schmidt, Arnholter and Warner (38).

A copy is included in the appendix (page 36).

D. SCORING PROCEDURES

It was deemed desirable to achieve as much simplicity as was consistent with accuracy in order to make it possible for these devices to be used by individuals not highly trained in psychology. Hence objectivity and quantification on a global basis were aims.

Because information relevant to one sentence stem was often given in response to a later, irrelevant stem, the second half of the test frequently yielding more material than the earlier part, it was thought necessary to regard the stems as stimuli and to accept all useful data without reference to the specific item that elicited it. No single score per item was made. All the patient's verbalization was divided into psychological ideas, and each idea recorded plus if it expressed one of the attitudes which the literature had indicated as adjustive to handicap and to rehabilitation, hence presumably predictive of success in the therapy program, and minus if indicative of non-adjustive self attitudes. Material that

was merely informational without reference to adjustment to handicap was placed in a neutral category.

Positive indications included expressions of understanding of the degree of handicap and the limitations and problems imposed by it, and acceptance of these; a willingness to cope with them in a realistic and independent manner insofar as was feasible; feelings of self acceptance and acceptance of others; justifiable expressions of confidence and self esteem.

Negative indications were denial of handicap or, conversely, centrality of it in the self concept as expressed by exaggeration of limitations and undue dependency; either resentment of help or demand for more help and attention than was actually required; inability to get along with others, since this behavior has been shown to correlate highly with lack of self acceptance.

The positive and negative scores were totaled and the ratio used as the test score for each individual. The ratios of positive to total and negative to total were not used because the amount of neutral material varied with the pressure of time on the patient at the conclusion of the test.

The method of scoring the rating scale is indicated by the figures ahead of the individual categories in the

copy (appendix, page 36). The desirable level of the characteristic is scored zero. Whenever this point falls at one end of the five point scale, the scores are 0, 1, 2, 3, or 4. In a number of items, the extremes are both undesirable in about equal degree, the midpoint representing the ideal level of the characteristic in question; hence the scoring is 4, 2, 0, 2, and 4. Since some items do not apply to some individuals or to some therapy situations, not all items could be completed on each form, making a simple point-total scoring impossible. Therefore, the item scores were totaled for each patient, and a mean score per item computed on the basis of the number of items used, yielding a score, on the zero-to-four point range, of deviation from the judged ideal adjustment.

CHAPTER III

SUBJECTS

Subjects were thirty-six adult patients in an out-patient rehabilitation center, chosen to represent a large variety of disabilities of diverse origins. Of these, data were complete on thirty-five.

CHAPTER IV

PROCEDURE

A. SENTENCE COMPLETION TEST

Because of the variety of physical disabilities, the sentence completion test was administered orally and an attempt made to record in writing the entire conversation, except in cases where the patient contributed a great deal of neutral material, usually after all items had been covered. At some times, this extended conversation was a delayed reaction to the stems and important to the study, hence was recorded and used.

In addition to the initial scoring, each form was re-scored three weeks later in order to minimize the effect on scoring of the recent memory of the patient's behavior during testing. A third scoring was made by an independent rater, a clinician who had not had any contact with the patients or with the therapists.

B. THERAPISTS' RATING SCALE

The rating scales were used during the same month that the sentence completion tests were administered, and

were completed for each patient by the therapists who were working with him, and often by the head of the occupational and/or physical therapy department as well when her contact had been close. For some patients a rating was made by the speech therapist and for some by the social worker. There were a total of eleven raters. Discussion of patients among the members of the various departments is minimal because of separation. There is therefore a high degree of independence in the ratings.

For each subject there were at least three ratings, for a few four or five. The scores were averaged for each patient using all ratings made, to achieve the single score used in correlation with the sentence score.

Difficulty was encountered in computing inter-rater reliability for the rating scale due to the fact that each therapist has the same small group of individual patients consistently, so that no two raters were qualified by sufficient contact to rate a large number of the patients. Several small groups were correlated by rank order method. For the entire group, however, it was necessary to divide the ratings at random into three sets of one rating per patient for correlation. It was not possible to determine or correct for any

constant rater bias in these mixed sets and the obtained figures can be assumed to be lower than the values which would be obtained with a larger sample.

CHAPTER V

RESULTS AND DISCUSSION

Scores on both instruments are presented in Table I. (Appendix, page 43)

Table II presents inter-rater reliability coefficients for the rating scale. Pearson's r's were computed for the three sets of one rating per subject chosen at random from scores from all eleven therapists. Groups of 12 and 8 rated by the same two therapists were correlated by the same method. Rank order coefficients were used for four groups of six individuals each rated by two of the therapists. Of these figures only two of the groups of six do not yield significant correlations; these two are positive figures. These results suggest that the therapists' rating scale has acceptable inter-rater reliability, which would be considerably enhanced by an increased N.

In Table III appear reliability coefficients of the sentence completion test, number 1 being the original scoring, number 2 the second scoring made of the same responses three weeks later, and number 3 the scoring

made by the independent rater. These figures indicate a substantial stability of the scoring during the three-week lapse of time, and good inter-rater reliability.

Table IV presents correlations between the sentence completion test scores and the means of the rating scores for each subject. There is sufficient agreement between the two devices so that it would be justifiable to use the scores of the sentence test, which can be administered in a very short time at the beginning of the therapy program, to predict which of a group of individuals would be judged by therapists as well adjusted to handicap and to therapy, at a later date, when long-term observation of behavior had made such a judgment possible. Correlation with actual physical improvement during therapy, however, must be the ultimate criterion of validity for these instruments, proving that success is in fact related to self attitudes. The present study indicates the ability of the sentence completion test to predict adjustment, as judged by therapists.

There is no reason to assume that the factors represented by the various items of the sentence completion test are of equal value in determining adjustment to handicap. Since these values are totaled into a global score,

their individual values are not represented; in some cases one area weighs more heavily than others. Further study might indicate that one aspect of self would correlate as well as a group with adjustment and success in therapy.

Dr. David Torbet, who made the independent scoring of the sentence completion responses, made this comment: "A 'be-brave' atmosphere favors the development of denial as a socially acceptable response. I had an unpleasant feeling that many of the 'positives' were not really 'positives' in fact but 'positives' in learning that the 'positive' modality makes for social rapport. . . . I'd bet on . . . the realists, the less-impassioned, the workers and doers whether the doing is social or physical."

No doubt some of these attitudes have been taught successfully because they lead to improvement in therapy. A long term study might determine whether the benefits of such indoctrination are lasting, and, if so, how best to hasten the process.

Examination of the distribution of scores reveals a positive skewness which was expected due to necessary preselection of patients admitted to a rehabilitation center. Differentiation at both extremes is good, but

there is no practical value to indication of the best adjusted patients; such an instrument needs only to be able to separate out those whose self attitudes warn of poor adjustment to therapy, and in this capacity it functions well.

CHAPTER VI

SUMMARY

A sentence completion test and a rating scale were devised to evaluate various aspects of the self concept which, on the basis of an analysis of previous studies, appear to be related to rehabilitation of the physically handicapped. Subjects were 36 adult patients with a variety of disabilities in an out-patient rehabilitation center. Results of the two were compared. A Pearson's r correlation of .82 was obtained between these measures, and substantiated by r's of .71 and .69 with other scorings. Reliability coefficients for the sentence form vary from .76 to .89, and for the rating scale inter-rater reliability figures for randomly selected sets of three ratings per subject were r's of .76, .89, and .87; for small groups scored by the same two raters in each case, r's of .75 for N-12 and .58 for N-8 were obtained, and rhos of .99, .94, .49 and .37 for N-6. It is concluded that both instruments are substantially reliable for evaluating adjustment to handicap in a rehabilitation setting.

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APPENDIX

APPENDIX A

SENTENCE COMPLETION TEST ITEMS AND SOME SELECTED RESPONSES

(In each case the responses indicating positive self attitudes are presented first, as a.); negative as b.).

1. I am-- a.) very grateful to be out here taking these exercises.

b.1) glad that I have got as well as I have but I don't want to be a burden and I can't help that. --2) sick.

2. Handicapped people-- a.) want to be just like other people; they have the same feelings as other people but are limited.

b.1) I am a little bit handicapped; I don't know anything about other handicapped people. --2) don't lose faith; only trouble is I don't seem to get anyplace.

3. My work-- a.) I love, but I will have to give it up because of this problem which will take a year.

b.) I ain't got any work, couldn't do it if I had to; my feet and hands get in the way.

4. When I am here-- a.) I am busy in physical and occupational therapy learning new methods to adapt to the way I am now.

b.1) I don't work too hard. I like them electrical machines but don't see much sense in this other stuff. The girls . . . don't do me no good. --2) I try to cooperate; . . . I've seen some that don't. You'd think they came here to tell the nurses what to do.

5. My family-- a.1) accept well, with certain limitations, my disability. --2) have all been very cooperative and helpful, . . . right there when there's something I need done.

b.1) are all hard workers is all I can say about that. . . . I lived alone and . . . was alone when I fell. . . . I'd rather be--well, I would -- than the way I am, a burden on my daughter. --2) I have three sons . . . Ow!' You reminded me of my husband! Oh, no! You shouldn't remind me of my husband!

6. Sometimes I feel-- a.) that I've missed an awful lot in the raising of my children during the year I've been in bed, . . . but our relationship has become much closer.

b.) that it isn't worth the effort.

7. There are many people who-- a.1) are worse off than I am. (This was the most frequent response.) --2) have been awfully nice to me. --3) are very interesting to know and to talk to about their handicap.

b.1) jump at conclusions before they know whether they are any good or not. --2) I don't know; I tend to my own business and I don't bother nobody.

8. If-- a.1) I could, I'd like to get back into the old routine. . . . I've learned so many things to help do my work; . . . I tell them here and they appreciate my ideas. --2) I could overcome this; I could spend the rest of my life just doing nice things for people, because I've had so much done for me. In 32 years (of illness) people can do so many nice things.

b.) I could only walk, I'd be O. K. Without walking, I can't do anything; I'm not good for anything.

9. Whatever I do-- a.) I enjoy it. My doing of anything is quite limited, but I enjoy reading and music and I like people.

b.) is all right with me--I don't know.

10. A year from now, I-- a.1) I'll be at work. --2) hope to be much better. I said that last year and the year before but I believe I am a little better each year, so I'll keep saying it.

b.1) I don't believe I'll be any better than I am now. --2) hope I'm up walking but I know I won't be.

APPENDIX B

THERAPIST'S RATING OF ADJUSTMENT TO THERAPY

(Figures in parentheses are scores for each category and do not appear on the form.)

Self-acceptance:

1. Attitude toward disability

(4) a. completely alienated

(2) b. minimal acceptance

(0) c. realistic acceptance

(2) d. moderate absorption with disability

(4) e. excessive absorption with disability

2. Understanding of degree of handicap

(4) a. grossly exaggerates degree of handicap

(2) b. slightly exaggerates

(0) c. understands true degree of handicap

(2) d. slightly underestimates handicap

(4) e. grossly underestimates handicap

3. Apparent evaluation of unimpaired abilities

(4) a. places no value on them

(3) b. low value

(2) c. moderate value

(1) d. fairly high value

(0) e. very high value

4. Attitude toward help

(4) a. total refusal of help

(2) b. resents help

(0) c. seeks when necessary

(2) d. expects help

(4) e. demands help

5. Level of confidence in ability to succeed in normal living

(4) a. overconfident

(2) b. somewhat overconfident

(0) c. realistic in confidence

(2) d. somewhat lacking in confidence

(4) e. totally lacking in confidence

Response to people:

6. Attitude toward family

(4) a. total absorption

(2) b. very friendly

(0) c. friendly

(2) d. indifferent

(4) e. ignores

7. Attitude toward fellow-patients

(4) a. total absorption

(2) b. very friendly

(0) c. friendly

(2) d. indifferent

(4) e. ignores

8. Observed hostility

(0) a. none

(1) b. little

(2) c. moderate

(3) d. considerable

(4) e. extreme

9. Irritability

(4) a. extreme

(3) b. considerable

(2) c. moderate

(1) d. minimal

(0) e. none

10. How much he talks

(4) a. not at all

(2) b. only when unavoidable

(0) c. freely and easily

(2) d. considerable

(4) e. continuously

11. How well he talks

(0) a. extremely well

(1) b. better than average

(2) c. sensibly and normally

(3) d. barely sensibly

(4) e. talks gibberish

Response to tasks in therapy program:

12. Interest in task

(4) a. none

(3) b. minimal

(2) c. moderate

(1) d. considerable

(0) e. great

13. Initiative - Ability to get a task started on his own

(0) a. excellent

(1) b. good

(2) c. moderate

(3) d. minimal

(4) e. none

14. Ability to follow directions

(0) a. excellent

(1) b. good

(2) c. moderate

(3) d. minimal

(4) e. none

15. Ability to maintain attention on task

(4) a. none

(3) b. minimal

(2) c. moderate

(1) d. good

(0) e. excellent

16. Ability to work with others

(0) a. excellent

(1) b. good

(2) c. moderate

(3) d. minimal

(4) e. none

17. Persistence in face of difficulty or failure

(0) a. excellent

(1) b. very good

(2) c. average

(3) d. below average

(4) e. poor

18. Quality of performance, in keeping with capacity

(4) a. poor

(3) b. below average

(2) c. average

(1) d. very good

(0) e. excellent

General observations:

19. Dependence - Does he take care of himself?

(4) a. requires maximum assistance

(2) b. requires moderate amount of assistance

(0) c. requires minimal assistance

20. Dependability in keeping appointments and carrying out home program

(0) a. completely dependable

(1) b. fairly dependable

(2) c. somewhat dependable

(3) d. unreliable

(4) e. completely unpredictable

21. General conduct

(4) a. consistently inappropriate

(3) b. frequently inappropriate

(2) c. somewhat inappropriate

(1) d. appropriate most of the time

(0) e. appropriate

APPENDIX C

TABLE I

SCORES ON THERAPIST RATING SCALES AND SENTENCE COMPLETION TEST

	THERAPIST RATING SCORES						SENTENCE COMPLETION		
	1	2	3	4	5	Mean	1	2	3
1.	.38	1.10	.86			.78	.27	.29	.33
2.	1.14	1.19	.71			1.01	.38	.11	.00
3.	.95	.76	1.10			.94	.75	1.00	.50
4.	1.29	1.24	1.21			1.25	.62	.29	.32
5.	1.30	1.38	1.28			1.32	1.14	.71	.67
6.	1.00	.95	1.00			.98	.50	.58	1.27
7.	2.48	2.10	2.45			2.34	2.18	2.60	1.08
8.	1.05	.88	.67			.87	.33	.26	.13
9.	1.40	1.29	1.00			1.23	.18	.38	.70
10.	1.10	2.10	1.82			1.67	.71	1.20	1.00
11.	.81	.86	.95			.87	.12	.11	.10
12.	.43	.52	.48			.48	.02	.04	.09
13.	1.67	2.38	2.75			2.27	2.80	2.50	4.25
14.	1.62	1.35	.90			1.29	.43	.62	1.33
15.	1.35	1.28	1.38			1.34	.81	1.13	1.80
16.	2.81	2.20	2.76	1.53		2.32	.57	.57	.29
17.	1.48	.71	1.20	1.10	1.20	1.14	.31	.83	.43
18.	.53	.57	.33			.48	.05	.06	.00
19.	.71	.65	1.05			.80	.27	.29	.63
20.	1.00	1.40	1.35			1.25	.57	1.17	.43
21.	.95	.84	1.19	1.24		1.06	.19	.26	.64
22.	1.67	1.48	2.16	2.62		1.98	2.00	2.14	1.50
23.	.62	.43	.52			.52	.36	.13	.21
24.	1.14	.67	.79	.86		.86	.14	.20	.12
25.	3.48	2.81	3.00			3.10	5.33	3.50	2.20
26.	1.15	1.14	.62			.97	.33	.55	.46
27.	.90	1.65	1.86	1.25	1.00	1.33	.21	.20	.24
28.	1.05	1.67	1.43			1.38	.33	.62	.33
29.	.67	.75	1.38			.93	.50	.50	.40
30.	.30	.57	.76			.54	.20	.39	.48
31.	.95	1.40	1.10			1.15	.19	.32	.04
32.	1.19	1.38	1.45			1.34	.44	.92	.00
33.	.67	.45	.95			.69	.14	.29	.35
34.	2.55	2.11	2.95			2.54	3.17	4.60	3.60
35.	1.10	1.26	1.33			1.23	.46	.50	.07
36.	.95	.83	.74			.84			

TABLE II

INTER-RATER RELIABILITY COEFFICIENTS OF RATING SCALE

RANDOM SETS OF RATINGS		TWO RATERS	
1 and 2	r - .76	N - 12	r - .75
2 and 3	r - .89	N - 8	r - .58
1 and 3	r - .87	N - 6	rho - .99
		N - 6	rho - .94
		N - 6	rho - .49
		N - 6	rho - .37

TABLE III

RELIABILITY OF SENTENCE COMPLETION TEST

SCORINGS	
1 and 2	r - .89
1 and 3	r - .76
2 and 3	r - .84

TABLE IV

CORRELATION BETWEEN
SENTENCE COMPLETION TEST SCORES AND
MEANS OF RATING SCALE SCORES

Sentence Scoring				
No.	1	and	Ratings	r - .82
No.	2	and	Ratings	r - .71
No.	3	and	Ratings	r - .69