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ABSTRACT

The criterion issues in the area of outcome research in psychotherapy were addressed and reviewed. Through this review of previous outcome research, it was determined that three basic criterion areas related best to traditional outcome variables such as therapist and community informant ratings, length of stay, and rehospitalization. These three criteria were: (1) satisfaction with self, (2) satisfaction with interpersonal relations, and (3) satisfaction with the therapeutic outcomes. With this impetus, an eighteen item scale was developed to measure the present state, and the magnitude and direction of change of the three criterion areas. The scale was administered to eighty-six former physchiatric patients f[illegible] Fort Logan Mental Health Center. The scale was found to be [illegible]ely reliable and internally consistant. As a partial validation of [illegible]e scale, a sub-sample of community informants' ratings on the treatment effectiveness scale was correlated with patient ratings. High correlations indicated partial validation of the instrument. (Author)

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Development and Validation of A Scale to Measure Treatment Effectiveness In Psychotherapy

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The assessment of the outcome of psychotherapy has been of major concern to social scientists, especially in the past twenty years. Frequently researchers have raised important questions about the effectiveness of specific psychotherapies and psychotherapy in general. Eysenck (1952-1965) questioned whether anyone had adequately demonstrated the effectiveness of any specific type of psychotherapy or psychotherapy in general. Many authors, in reviewing this body of research, have agreed that in the following years since Eysenck's classical paper, little adequate research was conducted in the myriad of studies published in the area of evaluation research (Zax and Klein, 1960; Strupp, 1964; Shlien, 1966; Paul, 1967).

THE CRITERION ISSUES

The issue of criteria selection in therapy evaluation has long been addressed and readdressed (Bartlett, 1959; Kaczkowski and Rothney, 1956; Strupp and Luborsky, 1962; Strupp, 1963, Frank, 1963; Zax and Klein, 1960; Farnsworth, 1966; Ellsworth, 1968). After review of the many studies dealing with problems of criteria selection, some attempt at a summary of the issues involved was considered in a number of articles (Frank, 1963; Farnsworth, 1966; Paul, 1967). Farnsworth (1966) and Frank (1963) both indicated that criteria for evaluation should now be relatively clear and it is time for consolidation and implementation of those criteria using modern psychometric techniques. This paper was just such an attempt at scale development. This presentation limited its scope to the development of multiple rater assessment measures designed to evaluate treatment effectiveness. Much previous research has dealt with assessment by trained professional informants (Lorr, 1954; Zax and Klein, 1960; Farnsworth, 1966). The problems of assessment of the therapeutic experience by the personnel providing the service is

obvious in the inherent bias introduced by such procedures (Zax and Klein, 1960, p. 439). With these inherent biases in mind, the present author attempted to develop a research tool that can be applied to any number of therapeutic approaches and settings.

MULTIPLE CRITERIA AND MULTIPLE RATERS

The use of single criteria in previous research has not proved a successful tactic whether it be derived from professional or layman. Empirically, the singular use of self-satisfaction, self-concept, self-knowledge, test score changes and number of other such ratings have not been adequate (Block and Thomas, 1955; Forsythe and Fairweather, 1961; Taylor, 1955; Froehlick, 1957; Tyler, 1961; Zax and Klein, 1960). Strupp and Luborsky (1962) summarized the issues against the use of a single rater of any kind, be it professional or non-professional, trained or untrained. Warnings against the use of the patient himself as the sole criterion measure have been expressed by a number of authors and researchers (Berdie, 1954; Berg, 1952; Farnsworth, 1966; Tyler, 1961; Strupp, 1963; Zax and Klein, 1960). In a core article, Goodstein and Grigg (1957) emphasized the need for multiple criteria measures and multiple raters. They postulated that in evaluation research there is need for consideration of personal and social adjustment by the client and significant others, as well as actual performance records, and client satisfaction with the therapeutic process. It might further have been said that criteria variables may be rated by at least three different types of raters: (1) hospital or professional personnel; (2) the client; and (3) a relative or friend (some significant other). This emphasis on multiple and non-professional raters has been borne out empirically by some recent studies (Ellsworth et al., 1968; Katz and Lyerly, 1963; Michaux

et al., 1969; Vestre and Zimmerman, 1969). It has, therefore, been determined by previous research that the task appeared to be the development of a multiple criterion measure that can be rated by at least three different informants. The question now remains as to which of the many multiple criteria relate best to other individual outcome measures and which have been empirically validated in a number of adequate research studies. An additional limitation on the type of criteria exists in the need for criteria that can be adopted to any theoretical approach and therapeutic setting.

SELF AND MULTIPLE ASSESSMENTS

The first evaluation measures based on the client's assessment of the therapeutic situation were developed for use in client-centered therapy. These phenomenological measures were used intra-therapeutically and post-therapeutically. Seeman (1954) constructed a measure which was used in a number of client-centered Research studies (Rogers and Dymond, 1954). It consisted of ten nine-point scales which required the counselor to note different aspects of the client's exp[illegible] While this instrument was not a self-assessment measure, its findings prove interesting when related to self-assessment measures. Using Seeman's scale as both a process and a before-after measure of client-centered therapy, it was found that success of outcome was related to the extent to which the client used the therapeutic experience for personal exploration, liked and accepted his therapist, moved in the direction of personal and social adjustment, and was satisfied with the outcome of therapy. These last three findings, personal and social adjustment and satisfaction with the outcome of therapy form the core criteria in a number of outcome studies.

The earliest adequate phenomenological self-assessment measure to be used in a number of studies (Snyder, 1953) was developed by Tucker (1953). It was an excellent attempt at the use of multiple criteria in therapy evaluation. Tucker

called his measure the"client post-therapy scale" on which the client noted his feelings in several areas: (a) possibility of having problems in the future; (b) studies of problems which prompted treatment; (c) relationship to others; (d) relationship to immediate family; and (e) sexual adjustment.

A more recent phenomenological approach to self-assessment measures was contributed by Katz and Lyerly (1963). The Katz Adjustment Scale (KAS) was designed to be used by both the client himself and significant others in rating the patient's symptoms and his personal and social behavior. There are 127 items which cover typical aspects of psychopathology and are to be judged on a 4-point scale according to frequency of occurrence. The KAS was divided into a patient form and a community informant form, each of which was identical except for a longer community informant symptom scale. The community informant sympton discriminant (SD) scale had 123 items, while the patient form only had 55. Of the five scales developed for the patients and the six developed for the community informant only satisfaction with socially accepted activities (SSA) and performance of socially expected activities (SEA) for both patient and informant predicted rehospitalization. In addition the "social" measures again best predicted course of adjustment. Another scale labeled "satisfaction with free time activities" (SFA) which actually described satisfaction with individual and social activities and hobbies, also predicted course of adjustment.

Zax and Klein (1960) emphasized the evaluation of the patient's behavior outside the therapy situation as the important approach to the criterion issue. Indeed, more recent articles indicate that there is little congruence between community and hospital adjustment (Ellsworth et al., 1968; Wood et al., 1962; Buss et al. , 1962; Schooler et al., 1967; Sinnett et al., 1965). Therefore, the inportance of ratings done in the community and by the community members is highly indicated. Rogers and Dymond hypothesized the

independence of vantage points from which therapeutic change was observed (Rogers and Dymond, 1954). Cartwright and his associates, however, found that some agreement between independent observers does occur even though patient and therapist ratings consistently appear most disparate (Cartwright and Roth, 1957; Cartwright and Kirtner and Fiske, 1963).

The domains of criteria for study were to be ones that exist outside the therapeutic situation itself. Criteria domains most consistently studied in the past and best related to traditional outcome variables such as length of stay, rehospitalization, therapist and relative ratings, have generally been in three basic areas. While these traditional outcome variables have been given much attention, many problems are inherent in their usage (Ellsworth et al., 1968).

The three criteria domains that have most consistently been linked with successful therapy have been patient satisfaction or contentment with himself, his interpersonal life and satisfaction with the outcome of his therapeutic experience (Crown, 1968; Ellsworth et al., 1968; Katz and Lyerly, 1963; Lewinsohn and Nichols, 1964, 1967; Meltzoff and Blementhal, 1966; Nichols and Beck, 1960; Tucker, 1953). Indeed, in an excellent review of psychotherapy research Paul (1967) stated that "the real question of outcome on logical and ethical grounds is whether or not the clients have received help with the distressing behaviors which brought them to treatment in the first place" (p.112). Likewise, in another well done review of the "healing arts," Frank (1963) indicated that the appropriate criteria for psychotherapy research should be reduction of distress and improvement in functioning. Successful functioning, Frank describes as "not merely a matter of behavior but of attitudes, so evaluation of this criteria must take into account not only the patients behavior but its meaning for himself and those who are important to him" (p.230). In a study

which simply asked the patient what his treatment was centered about, Board (1959) found that almost all patients saw improvemnet in self-understanding and various interpersonal relationships as the core of his distressing problems.

MEASUREMENT OF CHANGE

The criteria domains were therefore established and the next concern was the assessment of change within the particular domains. The literature on the assessment of change in psychotherapy presents a complex of issues that must be attended to before "change" can be established. The GAP Report (1966) presented an excellent review chapter on the assessment of change. They presented five basic dimensions of change: (1) occurence (simply yes or no); direction (usually better or worse); (3) magnitude (adds "how much" to direction); (4) duration; and (5) reversibility.

Likewise, in other articles on the assessment of change in psychotherapy, Meltzoff and Blumenthal (1966) and Meltzoff and Kornreich (1970) concluded that change has (a) a content statement; (b) direction; (c) magnitude; and (d) rate of occurrence, among other lesser attributes. Because there was considerable overlap between some of these dimensions, three of the most independent, salient and most agreed upon areas were chosen: (1) occurence; (2) magnitude; and (3) direction. Having, therefore, found some important dimensions necessary for the establishment of change, only the application of these dimensions of change to the three previously established criteria domains was needed.

DEVELOPMENT OF ITEMS

The task was to develop items which would assess the three criteria domains and dimensions of change as shown in Figure I. By perusal of past scaling attempts and consultation of staff members at the Fort Logan Mental Health Center, a number of items in each of the nine areas were developed. The items were then

subjected to some prior testing on adult psychiatric patients at the aforementioned institution and patients were interviewed about their clarity, appropriateness and meaningfulness. Word changes clarifying item meanings were made resulting in the eighteen items presented in Table I.

	CHANGE		PRESENT
	MAGNITUDE	DIRECTION	STATE
Satisfaction with therapy and outcome			
Satisfaction with self			
Satisfaction with interpersonal relations			

Figure 1. The Domains and Dimensions of the Treatment Effectiveness Scale

Table I

1. SATISFACTION WITH THERAPY (DIRECTION AND DEGREE OF CHANGE)

To what extent have your complaints or problems that brought you to therapy changed as a result of treatment?

Very Greatly Improved	Considerably Improved	Somewhat Improved	Not at all Improved	Gotten Worse

Everything considered how satisfied are you with the changes in yourself that have occurred as a result of your experience at Fort Logan?

Not at All Satisfied	Not Very Satisfied	Somewhat Satisfied	Rather Well Satisfied	Very Well Satisfied

In general, how satisfied are you with your experience at Fort Logan?

Not at All Satisfied	Not Very Satisfied	Somewhat Satisfied	Rather Well Satisfied	Very Well Satisfied

In general, did you find your experience at Fort Logan worthwhile?

Extremely Worthwhile	Very Worthwhile	Somewhat Worthwhile	Not at all Worthwhile	A Bad Experience

How sure are you that you can now handle your problems without Fort Logan's help?

Very Sure	Somewhat Sure	Pretty Sure	Not Very Sure	Not at all Sure

II. SATISFACTION WITH SELF-MAGNITUDE

How much change in you as a person has occurred since you started treatment at Fort Logan?

Not Changed	Very little Changed	Somewhat Changed	A Good Deal Changed	Very Much Changed

How much do you feel you have changed as a result of Fort Logan?

Great Deal	Fair Amount	Somewhat	Very Little	Not at All

SATISFACTION WITH SELF-DIRECTION

What change has there been in your feelings about yourself?

More Discontented	No Change	Somewhat More Contented	Good Deal More Contented	Much More Contented

What change has there been in your feelings toward your life?

More Discontented	No Change	Somewhat More Contented	Good Deal More Contented	Much More Contented

SATISFACTION WITH SELF--PRESENT STATE

How satisfied are you with your life right now?

Very Satisfied	Somewhat Satisfied	Neither Satisfied Nor Dissatisfied	Somewhat Dissatisfied	Very Dissatisfied

How do you feel about yourself?

Very Contented	Somewhat Contented	Neither Contented Nor Discontented	Somewhat Discontented	Very Discontented

III. SATISFACTION WITH SOCIAL - MAGNITUDE

How much change has occurred with the way you get along with others since your treatment at Fort Logan?

Not Changed	Very Little Changed	Somewhat Changed	Good Deal Changed	Extremely Changed

How much change in your social relations has occurred as a result of your treatment at Fort Logan?

Great Deal	Fair Amount	Somewhat	Very Little	Not at all

DIRECTION - SATISFACTION WITH SOCIAL

I am more well thought of and respected by others since my stay at Fort Logan.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

Are you generally more content with the way you act with other people since the Fort Logan experience?

More Discontented	No Change	Somewhat More Contented	More Contented	Much More Contented

SATISFACTION WITH SOCIAL - PRESENT STATE

How satisfied are you with the way you presently get along with others?

Not at all Satisfied	Not Very Satisfied	Somewhat Satisfied	Pretty Much Satisfied	Very Well Satisfied

How content are you with the way you presently make and maintain friendships with others?

Very Content	Pretty Much Content	Somewhat Content	Not Very Content	Not at all Content

What changes have there been in your feelings toward your interactions with others?

More Discontented	No Change	Somewhat More Contented	More Contented	Much More Contented

PRELIMINARY ANALYSIS

The eighteen items were furnished with a cover letter fully explaining its use and privacy of communication and mailed out to former patients and their community informants. In addition to the eighteen items presented, four items taken from a previously developed questionnaire assessing feelings about staff concern and rapport and staff competence were included in the questionnaire. The twenty-two items were randomized and mailed out in a questionnaire.

Analyses were conducted on the four subscales (including perceived staff concern and competence). The reliabilities, homogeneity ratios and interscale statistics for 86 subjects (include both patient and community informants) are presented in Table 2.

Table 2

Scaling Statistics for TES Subscales

		1	2	3	4	5
1.	Satisfaction with therapy outcome (STO)	(.88)				
2.	Satisfaction with self (SWS)	.86	(.92)			
3.	Satisfaction with interpersonal relations (SIR)	.78	.88	(.91)		
4.	Staff concern and competence (SCC)	.67	.50	.39	(.85)	
5.	Total treatment effectiveness scale (TES) (Not including SCC)	.91	.97	.95	.53	(.96)
	Homogeneity Ratio	.60	.66	.61	.58	.59
	Number of Items	5	6	7	4	18

As can be seen in Table 2, all of the TES subscales and the total TES scale had high reliabilities and very high homogeneity ratios indicating exceptional internal consistencies. Indeed, the reliability for the total TES was .96. The homogeneity ratio was .59 which is somewhat higher than the optimal level of .33 which indicated some redundancy and overlap which was expected considering the use of multiple dimensions of change having the same content referent within each subscale. There were only minor differences in items assessing magnitude, direction and present state of each criterion domain. The high correlation between SCC and the other TES scales is in agreement with previous research which indicated a high relationship between patient feelings of staff concern and competence and satisfaction with the outcomes of therapy, self-appraisal and interpersonal life (Cartwright, 1957; Kamin and Caughlin,1963; Luborsky et al., 1971). All of the preceding and following analysis was done with both patients and community informants. No differences were observed in the separate patient and community informant analyses, therefore only the combined analyses are presented.

In addition to the more or less a priori scaling analysis, these 22 items were subjected to standard empirical cluster analysis (BC Try system). The results of this analysis are presented in Table 3. Fourteen of the eighteen items in the total TES clustered empirical with three unincluded items forming a third cluster which is highly related to the first cluster (r=.78). The SCC scale empirically clustered as the second cluster seen in Table 2 with the addition of one STO item, which supports both scales internal consistencies and the rationale for considering SCC as separate from the TES itself. This separate clustering of the SCC from the TES also indicates a less likelihood of such empirical clustering due only to a "method factor" (Cartwright, Kirtner and Fiske, 1963) or a"vantage point" factor (Rogers and Dymond, 1954).

TABLE 3
EMPIRICAL CLUSTER ANALYSIS FOR TES ITEMS

	ITEM TYPE	VARIABLE NO.[1]	FACTOR COEFFICIENT	AVERAGE WITH (D)
CLUSTER NO. 1	SIR-DIR	19 (D)[2]	.88	.74
	SWS-MAG	2 (D)	.87	.7[illegible]
	SWS-MAG	10 (D)	- .87	.73
	SWS-DIR	12 (D)	.86	
	STO	9 (D)	- .84	.71
	SWS-DIR	22 (D)	.83	.70
	SIR-DIR	6 (D)	.81	.68
	STO	18	.81	.68
	SWS-PS	11 (D)	- .75	.63
	SIR-MAG	4	.74	.63
	SWS-PS	3	.74	.63
	SIR-DIR	15	- .72	.61
	STO	21	- .70	.59
	STO	20	.60	.50
		RELIABILITY OF CLUSTER = .95		
CLUSTER NO.2	SCC	16 (D)	.88	.66
	SCC	17 (D)	.83	.63
	SCC	8	- .71	.54
	STO	1 (D)	.70	.54
	SCC	7 (D)	- .61	.47
		RELIABILITY OF CLUSTER = .88		
CLUSTER NO. 3	SIR-PS	5 (D)	.89	.78
	SIR-PS	14 (D)	- .86	.76
	SIR-MAG	13	- .66	.58
		RELIABILITY OF CLUSTER = .85		

[1] ACTUAL ITEMS ARE LISTED IN APPENDIX

[2] INDICATES DEFINERS OF A CLUSTER

VALIDATION

The next step in the process of scale development is the validation of the scale. Since community informants are becoming a generally used informant population in therapy research, it was decided to validate the TES by correlating patient and informant ratings on the TES. Only 15 complete data sets were available at this date in the analysis (both patient forms and their community informant forms completed). Pearson r statistics were computed on the total TES scale, the three subscales and SCC scale. Table 4 gives the correlations between the five above mentioned scales for patients and their respective community informants.

Table 4

Correlations Between Patients and Community Informants on the TES and SCC

SCC	.60**
SWS	.77***
SIR	.58*
STO	.71**
Total TES	.79***

* p <.05

** p <.01

***p <.001

While the N in this initial validation procedure is small, nevertheless the statistics are still impressive. The two informant populations rate the TES scale very similarly indicating high convergence validity for the overall scale. The SWS has the highest convergence followed by the STO and SIR subscales. This indicates that community and patients agree more with regard to satisfaction

wit sel: ..an satisfaction ith therapy or interpersonal relations. This finding is reasonable since informants can generally better observe the patient's self-evaluation than his interpersonal relations which may exist outside the informant's social environment.

In essence, the cross-validation procedure indicated good correspondence between patient and community informant. However, a larger sample, as well as other cross-validation procedures, are still needed and are the next steps to be taken by the present author.

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