MEASUREMENT OF CONSENSUS OF GOAL PERCEPTION

IN A DAY TREATMENT PROGRAM

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR

THE DEGREE OF MASTER OF ARTS IN PSYCHOLOGY

IN THE GRADUATE SCHOOL OF THE

TEXAS WOMAN'S UNIVERSITY

COLLEGE OF EDUCATION

By

Rochelle Brickman

Denton, Texas

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Texas Woman's University

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We hereby recommend that the   Thesis   prepared under

our supervision by Rochelle Brickman

entitled   Measurement of Consensus of Goal

Perception in a Day Treatment

Program

be accepted as fulfilling this part of the requirements for the Degree of

Master of Arts .

Committee:

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Dean of The Graduate School

DEDICATION

To my husband for his understanding, cooperation, and encouragement during my years of graduate study, and to my parents for their love.

ACKNOWLEDGEMENTS

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INTRODUCTION

Within the last 30 years, there has been an increasing
expansion of day treatment programs. The practice of pro-
viding care to the seriously ill during the daytime and
returning them to their homes began in Russia in the early
1930's (Glasscote, Kraft, Glassman, and Jepson, 1969).
Glasscote et al. acclaimed,

> That the founding of the first day hospital came
> about not so much from theoretical and philosophical
> persuasion as from financial expendiency: There
> simply were not sufficient funds to build more
> hospitals. (p. 1)

The movement to establish day treatment programs spread
to the western world. Craft (1959) attributed the first
North American day hospital situated within a traditional
hospital to Montreal in 1947. In 1949 in the United States,
the Menninger Clinic Day Hospital was reported as treating
one-third of all its patients on a day basis. According
to a survey conducted by the Division of Biometry of the
National Institute of Mental Health, day care programs
as of January, 1972, reflected a 700% increase in the
number of such programs. Accounts of day hospitals in
most areas of the world have been well documented in the
literature (Butts, 1964; Craft, 1959; Glasscote, et al.,

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1969). The proliferation of programs was given greater impetus through their requirement as a basic service in federally funded comprehensive community mental health centers.

The support for acceleration of day treatment programs was documented by the strong evidence of day treatment as a valuable form of treatment which can successfully meet a variety of needs (Craft, 1959; Epps & Hanes, 1964; Glasscote et al., 1969; Gross, 1971). Craft contended that the day hospital treats the patients who would otherwise be hospitalized full time. Epps and Hanes identified and illustrated the following six functions: (a) as a definitive treatment center for many patients now treated in the full-time hospital; (b) as a gradual transition when discharged from the full-time hospital is likely to result in increased symptoms or regression; (c) as a transition into a full-time hospital when patient and family cannot tolerate immediate total separation; (d) as a training center to reestablish work patterns and to facilitate rehabilitation; (e) as a treatment center for patients who, after a course of individual therapy, need additional treatment emphasizing interpersonal relationships and social factors; and (f) as a treatment center where contact with family is maintained and made the focus of treatment. Glasscote et al. attested to the success in

several countries of using less than 24 hours per day
of hospitalization in treating a number of syndromes.
These authors did not list the goals in the same manner
as Epps and Hanes. Their survey indicated that several
programs combine goals. Gross stated along the same line
that day treatment could be successful in meeting a variety
of needs and goals, if they are specified. He emphasized
a model of day treatment that brings about changes in
personality and behavior in patients. Specific models
have been developed, according to the theoretical orien-
tation of the staff and philosophy of the day hospital
involved.

The expansion of programs has also been facilitated
by the fact that day treatment programs can be established
in a variety of settings. Butts (1964) identified several
types: (a) Day Hospitals associated with a large hospital
such as State Hospitals or Veteran Administration Psychi-
atric System; (b) Day Hospitals associated with a private
hospital; (c) Day Hospitals associated with a psychiatric
department of a general hospital; (d) Independent Day
Hospitals; and (e) Day Hospitals associated with a public
hospital for intensive treatment of the mentally ill.
The claims of success for day treatment programs have
been set forth by many on essentially philosophical grounds.
For example, Chen, Healy, and Williams (1968) stated that

day treatment centers could easily be justified even in the absence of definitive evaluation studies. They made the following statements in defense of the existence of day treatment centers: (a) they are cheaper by virtue that patients are not lodged overnight; (b) they are less destructive of life processes which keep the patient integrated into the community; and (c) they lessen the problems of hospital habituation in that they de-emphasize dependency and break clearly with the traditional model. In essence, the day treatment center has a certain face validity which is consonant with current psychiatric thinking.

Although day treatment is characterized by attractiveness of philosophy, uniqueness, and a tremendous proliferation of programs, it is also marked by a number of problems. Chen et al. (1968) mentioned along these lines that there is a need for day treatment to: (a) specifically state purposes and goals in order to evaluate the degree of achievement; (b) clearly identify the patient population and problems of patient selection; and (c) precisely describe the program with adequate clarification of what types of treatments are involved. Rickelman (1968) focused on some of the problems of day hospitals in community care of the mentally ill and considered the diversity of development and multiplicity of demands of day treatment programs as additional conflicting factors. Diversity exists in kinds of patients

treated, kinds of treatment offered, types of staff per-
sonnel represented, and kinds of administrative affiliation.
Programs attempt to provide many services such as care of
patients with both acute and chronic illness.

To insure "viability" in the face of diversity,
Astrachan, Flynn, Geller, and Harvey (1970) claimed an
organization must clearly identify and define its primary
task(s). Frequently, the organization (day treatment being
the example) performs several tasks simultaneously, each
requiring its own relevant structure which may or may not
conflict with the other task(s) which are being served.
Another conflict Astrachan et al. (1970) described was the
problem of the organization developing policies and objec-
tives that are unrelated to its primary tasks. There was
evidence in the literature to support their claim. To over-
come this difficulty, they described the objectives of day
treatment programs in terms of four primary tasks which they
identified as (a) an alternative to 24-hour in-patient hos-
pitalization; (b) a transitional care setting whose task is
to facilitate the reentry into the community of previously
hospitalized patients; (c) a treatment and rehabilitative
facility for the chronically mentally disturbed; and (d) a
structure which delivers those psychiatric services which
a specified community defines as an overriding public need.

One of the major problems which arise from lack of primary task clarification is underutilization. Beigel and Feder (1970) examined the factors predictive of complete or incomplete utilization of day treatment programs and found the significant criterion to be the acuteness or chronicity of the client at the time he or she sought help, rather than such factors as diagnosis, prior hospitalization, etc. The authors strongly suggested separate programs are required for acute and chronic patients. Silverman and Val (1975), on the other hand, discussed data which suggested that patients who benefit most from their day hospital involvement were those patients who are more maladjusted and have had longer periods of hospitalization. The difference in the conclusion drawn and reported utilization in the two previously mentioned studies clearly reflected the results of lack of task definition. In the former study (Beigel & Feder, 1970), the program served as an alternative to hospitalization and as a transitional facility. In the latter study (Silverman & Val, 1975), the program served as a rehabilitative facility.

This study addressed itself to the identification of program goals of a day treatment unit by the staff of a community mental health center, and the extent to which they perceived these goals as being achieved. A "Goal Perception Measure" was administered to each staff member to

determine his attitudes and expectations of the day
treatment unit. The measure was without a set number
or predetermined list of goals. This study attempted
to develop, through the use of a "Goal Perception Measure,"
an efficient and effective method for identifying the
presence, nature, and extent of goal ambiguity within a
day treatment unit. In essence this study required staff
persons to identify, weight, and rate the level of achieve-
ment of goals which they perceived as important to a day
treatment program. In addition to the data thus generated,
demographic and other possibly related variables were inves-
tigated. To the extent possible, it was hoped that the
technique employed could be globally applied and serve
as a model for other mental health program units.

METHOD

Subjects

The population of this study consisted of all the
staff of District V Dallas County Mental Health and Mental
Retardation Center who provide therapeutic services to
clients or interface with the Day Treatment Unit (see
Appendix A).

Instrument

The evaluation technique, Goal Attainment Scaling, was
the primary evaluation method utilized in this study (see

Appendix B). This technique was first developed by Kiresuk and Sherman (1968), and used at the Hennepin County Community Mental Health Center in Minneapolis, Minnesota. Since then, its use has been extended to other community mental health, geriatrics, mental retardation, and physical rehabilitation centers (Garwick & Lampman, 1972).

The Goal Attainment Scaling System consists of a vertical scale that defines the major goals, and for each scale a graded series of likely treatment or goal outcomes, ranging from least to most favorable, is made. Kiresuk and Sherman (1968) indicated that at least two points on the scale should have sufficient precise and objective description to enable easy placement of a patient (program for the purpose of this study) above or below that point. These points are then assigned numerical values, -2 for a least favorable outcome and +2 for a most favorable outcome, with the value zero assigned to the outcome most likely. The scales can be numerically weighted to show their importance. The advantages cited for this instrument are several. It is flexible, places no restrictions on possible goals, and gives freedom to assign relative weights. In addition, it has been suggested as an aide to administrative planning (Davis, 1973; Garwick & Lampman, 1972; Kiresuk, 1973).

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Procedure

The evaluation tool, specifically called in this study Goal Perception Measure (GPM), was administered to each S (see Appendix C). The data was gathered in group settings, supervised by E. Ss were not allowed to collaborate. Each one of the Ss was provided a test data packet which included an identification data page, instruction page, example page, and blank GPM forms (see Appendices D, E, G, and C), and the following general instructions:

This study is geared to provide useful information for day treatment planning. On the scales across the top (horizontal scales) please list the major goals of the District V Day Treatment Program as you see them. The vertical, or up-and-down, scales are your estimates of how well the District V Day Treatment Program is achieving these goals. Place an X in the blank under each of the goals where you think the program is currently performing. At least three of the vertical (up-and-down) scales should have sufficient, precise, and objective descriptions. Please indicate the numerical weight on the horizontal line from 0-100 to indicate its importance. It is of extreme importance that the goal(s) you indicate be your perception and you complete this form independently.

(See attached example, Appendix C.)

In addition to the above data, the following data were gathered on each $\underline{S}$: Discipline, Major Component Service Unit, and Length of Time in Unit, Age, Sex, Ethnic Groups, and Previous Experience in Mental Health.

Statistical Analysis

One-way Analysis of Variance using a significance level of .05 was performed for the following: Discipline, Major Service Component, Sex, and Race. For Length of Time in Unit, Age, and Length of Previous Experience, the correlations with the dependent variables were computed. The data analysis was performed on a computer. Post Hoc Procedures were used to test for differences subsequent to a significant overall Analysis of Variance F Test.

RESULTS

The Goal Perception data generated in this study are presented in summary form on Table 1. The mean Goal Perception Measure (GPM) score generated by the entire sample was 52.2 with a SD of 8.7. The range of scores was from 33.0 to 71.0. High Scores indicate the day treatment unit achieving "more than expected success" on goals perceived by the staff. Low scores indicate the day treatment unit achieving "less than expected success" on goals perceived by the staff. The median

Table 1

Group Sizes, Means, and Standard Deviations

of Goal Perception Scores for the

Various Groupings of Subjects

Grouping	Number of Subjects	Mean	Standard Deviation
Goal Perception Scores: Entire Sample	40	52.22	8.68
Goal Perception Scores by Discipline			
Social Workers	8	50.00	7.76
Psychiatrists	3	45.33	9.61
Nurses	10	55.60	8.44
Psychologists	6	58.83	9.33
Paraprofessionals	9	47.22	7.12
Other	4	54.75	3.59
Goal Perception Scores by Major Component Service Unit			
In-Patient	12	52.75	10.30
Out-Patient	16	52.63	9.31
Emergency	4	53.00	8.53
Day Treatment	5	50.80	3.35
Other	3	49.33	9.02

Table 1, Continued

Grouping	Number of Subjects	Mean	Standard Deviation
Goal Perception Scores by Sex			
Male	18	53.50	7.34
Female	22	51.20	9.68
Goal Perception Scores by Ethnicity			
Anglo	29	52.31	8.36
Black	7	50.14	9.82
Mexican-American	4	55.25	10.50

and the mode for the sample were 50.33 and 50.00 respectively. Table 1 also presents a breakdown of GP scores under various population groupings.

The data were also analyzed to see if relevant variables may have affected the magnitude of the GPM scores. The first variable was that of discipline within the sample. There were six groups composed of social workers (n = 8), psychiatrists (n = 3), nurses (n = 10), psychologists (n = 6), and paraprofessionals (n = 9), and others (n = 4). A simple one-way Analysis of Variance of GP scores across disciplines was performed (see

Table 2). The obtained F value of 2.59 was found to be statistically significant (p = .04).

Table 2

Analysis of Variance Discipline

Source	df	SS	MS	F Ratio	p
Discipline groups$_b$	5	808.7694	161.7539	2.5866	.0436
Within groups	34	2126.2056	62.5355		
Total	39	2934.9750			

The Duncan's Multiple Range Test was performed for all pairwise comparisons of mean GPM scores across disciplines. The mean GPM score for psychologists (Group 4, $\bar{x}$ = 58.83) was significantly higher than that of the psychiatrists (Group 2, $\bar{x}$ = 45.33) and the paraprofessionals (Group 5, $\bar{x}$ = 47.22). The computed value of Duncan's Multiple Range Test for the comparison of Group 4 with Group 2 was 4.01, which exceeded the critical value of 3.24 (α = .05, r = 6, df = 34). The computed value of Duncan's Multiple Range Test for the comparison of Group 4 with Group 5 was 3.45, which exceeded the critical value of 3.18 (α = .05, r = 5, df = 34). No other pairwise comparisons were found to be significant (see Table 3).

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Table 3

Rank Ordering of Means for Discipline

Group	Discipline	Mean	Rank
4	Psychologists	58.83	1
3	Nurses	55.60	2
6	Other	54.75	3
1	Social Workers	50.00	4
5	Paraprofessionals	47.22	5
2	Psychiatrists	45.33	6

The second variable was that of Major Component Service
Unit within the sample. There were five major component
service units represented: In-Patient (n = 12), Out-
Patient (n = 16), Emergency (n = 4), Day Treatment (n = 5),
and Others (n = 3). A simple one-way Analysis of Variance
of GP scores across service units was performed (see
Table 4). The obtained F value of .1317 was nonsignifi-
cant (p = .97).

The third potentially relevant variable investigated
was that of sex. The point-biserial correlation coefficient
was computed, and the r_{pb} value of .13 was nonsignificant.

The fourth variable was that of Ethnicity. There
were three major ethnic groups within the sample: Anglo

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Table 4

Analysis of Variance, Major

Service Component

Source	df	SS	MS	F Ratio	p
Major Service Components[b]	4	43.5083	10.8771	0.1317	.9698
Within Groups	35	2891.4667	82.6133		
Total	39	2934.9750			

Table 5

Summary Table for Computation Point-biserial Correla-

tion Coefficient as a Measure of the Relationship

between Goal Perception Scores and Sex

Group	Number of Subjects	Mean	Standard Deviation	r_{pb} Biserial$_r$
Male	18	53.5		
Female	22	51.2		
Total	40	52.2	8.68	0.1334

(n = 29), Black (n = 7), and Mexican-American (n = 4).
A simple one-way Analysis of Variance of GP scores across
ethnic groups was performed (see Table 6).   The obtained
F value of .43 was nonsignificant (p = .65).

Table 6

Analysis of Variance Ethnic Groups

Source	df	SS	MS	F Ratio	p
Ethnic groups_b	2	67.1610	33.5805	.4332	.6516
Within groups	37	2867.8140	77.5085		
Total	39	2934.9750			

The fifth potentially relevant variable investigated
was that of Age.   The Pearson product-moment correlation
coefficient was computed and found to be nonsignificant.
The mean age for the entire sample was 32.1 years with a
SD of 8.1 years.   These and related data are presented in
Table 7.

The sixth potentially relevant variable investigated
was that of Experience in Unit.   A Pearson product-moment
correlation coefficient of .07 was computed and found to be
nonsignificant (see Table 7).

The seventh potentially relevant variable was that of
Previous Mental Health Experience.   A Pearson product-moment

correlation coefficient of .05 was computed and found to be
nonsignificant. The mean previous experience in mental
health was 50 months with a SD of 63.2 months (see Table 7).

Table 7

Pearson Product-Moment Correlation .

with Goal Perception Scores

Variable	Number of Subjects	Mean	Standard Deviation	Correlation
Age	40	32.1 yrs.	8.1	0.0864
Experience in Unit	40	19.0 mos.	12.4	0.0736
Previous Mental Health Experience	40	50.0 mos.	63.2	-0.0488

The goal statements submitted by each of the Ss in the
study were reviewed for commonality or agreement of goals.
As a result of this review, an outline of general and spe-
cific goal areas was compiled. These are presented in
Table 8.

Once the general categories had been identified
(Table 8), a frequency count was made for each type of
goal statement made by each discipline. These frequency
tabulations are presented in Appendix G. Seventy percent
of all responses made were goal statements. Thirty

Table 8

Summary Listing of Goals Identified

by the Sample

Goal Number	Sub-Goal	Program Goals
G-1		Promote Improvement in Client's "Personal Adjustment" or "Personal Stability"
	A	Increase orientation to community and its resources
	B	Increase family stability
	C	Increase "functional" behaviors
	D	Increase in "problem solving" behaviors
	E	Increase in feelings of personal achievement
	F	Increase independent functioning
	G	Enhance self-image
	H	Increase self-help behaviors
	I	Increase reality testing
	J	Foster remotivation
G-2		Develop Socialization Skills
	A	Improve interpersonal relationships
	B	Improve interaction/communication

Table 8, Continued

Goal Number	Sub-Goal	Program Goals
G-3		Provide an Alternative to Hospitalization
	A	Increase length of time between hospitalizations
G-4		Provide Transitional Care (Intermediate Care)
	A	Do follow-up program
	B	Provide after-care program
G-5		Provide a "Support" Program
G-6		Promote Successful Work Adjustment (i.e., Locate, Get, Keep a Job)
G-7		Provide Training for Students in Social Service Field

Modality Number	Sub-Goal	Program Modalities
M-1		Offer Multiple Treatment Modalities
	A	Individual therapy
	B	Group therapy
	C	Chemotherapy

Table 8, Continued

Modality Number	Sub-Goal	Program Modalities
	D	Activity therapy (arts and crafts)
	E	Recreational therapy
M-2		Teach Concrete Skills
	A	Improve manual dexterity
M-3		Assure Client's Active Involvement in Milieu
	A	Encourage regular attendance
	B	Discourage "drop-outs"
	C	Encourage participation in activities with others
M-4		Use, and Get a Commitment to, a Realistic, Clearly Defined Treatment Plan/Contract/Set of Goals
M-5		Provide a Positive Atmosphere/Environment
M-6		Carry out Follow-up and After-care services
M-7		Provide Supportive Resources for Needy Patients
	A	Transportation

Table 8, Continued

Modality Number	Sub-Goal	Program Modalities
	B	General resources
M-8		Perform Thorough Evaluation

percent of all responses made were modality statements or specific activities needed to achieve overall objectives.

The raw data for the entire sample are presented in Appendix H.

DISCUSSION

One of the major objectives of this study was the measurement of the perceived goals of a day treatment unit by the staff of a community mental health center. The perceived goals were measured by the GPM, a measure derived from Goal Attainment Scaling (Kiresuk & Sherman, 1968). The GPM allowed the staff to list their perceived goals in their own terms and provided a means to score and quantify these subjective data. The resultant scores (see Appendix H) identified the level of success the staff perceived the day treatment unit had in achieving the goals they identified. A second objective was the measurement

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of the extent to which the staff perceived these goals
as being achieved. The staff's attitudes towards, and
expectations of, the day treatment unit would thus be
reflected. An additional objective was to develop an
efficient and effective method for identifying the presence,
nature, and extent of goal ambiguity within a day treatment
unit. To the extent possible, it was hoped that the tech-
nique employed, specifically the Goal Perception Measure,
could be globally applied and serve as a model for other
mental health program units.

The data generated by this study showed there was
a wide range of opinions. No discipline generated a
higher average number of goals than another discipline.
For example, social workers accounted for 20% of the sample,
and contributed 20% of the total goal statements. Thus,
the total number of responses made by Ss in each discipline
were exactly proportional to the total number of Ss in
each discipline. The entire sample generated over 35
different goal statements. The wide variety of statements
made suggested a lack of goal clarity and difficulty in
clearly distinguishing between primary tasks and secondary
tasks (Astrachan et al., 1970). While Ss in this study
were specifically asked to write "program goals," in
reality they produced two classes of statements which
encompassed "goals/objectives" or "primary tasks" on the

one hand (70% of the responses), and what essentially
were "modalities" or "secondary tasks" on the other hand
(30% of the responses). That is, the latter group of
statements were really more descriptions of tasks or
activities through which the set of "genuine" goals/
objectives could be achieved (see Table 8). This break-
down held true across disciplines, except for the "others"
group (Music Therapist, Pastoral Counselor, B.A. Social
Science, and B.A. Psychologist), which represented a
samll proportion (10%) of the sample.

The following were the most commonly perceived day
treatment goals and modalities: (a) promote improvement
in client's "personal adjustment" or "personal stability"
(32% of the responses); (b) develop socialization skills
(17% of the responses); (c) offer multiple treatment
modalities (15% of the responses); (d) promote successful
work adjustment (9% of the responses); (e) assure client's
active involvement in milieu (5% of the responses); and
(f) provide an alternative to hospitalization (5% of the
responses). The most frequently perceived goal was that
of promoting improvement in client's "personal adjustment"
or "personal stability." This included, for example, such
statements as increasing orientation to the community and
its resources, increasing family stability, and increasing
"functional behaviors." The second most common goal

expectation was the development of socialization skills, which includes the improvement of interpersonal relation- ships and personal interaction/communications. The above general objective is quite popular in the literature as reflected by such authors as Epps and Hanes (1964), and Rickelman (1968). The third most frequently stated goal statement by the Ss in this study, that of offering multiple treatment modalities, was a program modality. Under this category, a broad spectrum of therapeutic approaches was mentioned by the Ss. Some of these were: individual therapy, group therapy, chemotherapy, and activity therapy. The fourth goal statement, that of promoting successful work adjustment, has also been highly endorsed in the litera- ture (Epps & Hanes, 1964; Glasscote et al., 1969; Meltzoff & Blumenthal, 1966; Rickelman, 1968). The fifth popular goal statement in the data was the offering of a program modality to assure client's active involvement in the milieu, i.e., encouraging regular attendance and discour- aging "drop-outs." The sixth popular goal statement, that of providing an alternative to hospitalization, is also heavily endorsed as a program goal in the literature and was supported in this study (Astrachan et al., 1970; Craft, 1959; Epps & Hanes, 1964; Glasscote et al., 1969). The above goal statements comprised 83% of the total number of responses. The remaining responses were diverse but

represent a negligible proportion of the total number.
The results of the GPM data showed the Ss perceived the
day treatment unit as achieving their perceived goals
between the "expected" and the "more than expected" out-
come levels. In order to perform at the "expected" level,
a score of 50 was necessary on the GPM, regardless of the
goals identified. A score less than 50 would have indi-
cated achieving "less than expected" or possibly the
"most unfavorable" outcome level. Thus, the day treatment
unit was judged on standards considered relevant by the
Ss for this particular unit, not on an arbitrary set of
standards. The "expected" level of outcome was set
specifically for this unit on a continum from most unfavor-
able to most favorable outcome level, and in spite of the
numerous and diverse goal statements made by the Ss, their
expectations were being achieved.

Of the seven variables suspected as possibly having
a relevant impact on the GPM (age, sex, discipline, major
component service unit, experience in unit, and previous
experience in mental health), only discipline appeared to
have a significant difference.

The psychologists perceived the day treatment unit
as exceeding somewhat their level of expectation of day
treatment goal achievement, while the reverse was true
for the psychiatrists and paraprofessionals. None of the

groups appear to perceive the day treatment unit as greatly overachieving or underachieving their expectations for goal attainment. There is not sufficient data in this study to account for the differences in groups themselves. The fact that differences exist would need to be taken into account in future studies.

The GPM method, utilized in this study, identified 15 broad goal categories with over 35 goal statements. At least six of the goal areas were heavily endorsed. The literature suggests that a unit cannot respond effectively to this many objectives (Silverman & Val, 1975). Thus, the method does identify the presence of goal ambiguity. The nature of ambiguity is primarily in goal clarity and inability to distinguish between goals and modalities. The extent of ambiguity found is across the entire sample. The findings in this area were representative of all staff and not skewed by any one group. From the findings thus generated, a number of conclusions can be made. The GPM method appears to be effective and efficient. Program goals can be identified as discussed above. It requires a small time investment on the part of the Examiner and $\underline{S}$. It is quickly scored and analyzed with relative ease, despite input from all levels of staff. In addition, the GPM permits comparison with intended objectives.

In terms of global application, the study suggests that the GPM can be utilized in other units/programs. Special advantages the GPM has which could prove useful in other units/programs include no set of predetermined goals, administered easily to a wide range of staff at different levels, and small time investment which is quickly scored and analyzed on relevant standards. It can also be used as a follow-up measure for goal attainment, if used on a pre/postbasis. A search of the literature revealed very few follow-up studies being performed on program management. This application of the GPM could serve as a highly beneficial tool for administrative planning were it to be administered at intervals on a pre/postbasis. Besides being utilized as a corrective measure, another possibility is the GPM's adaptability for in-service education of staff, by virtue of providing a means for clearly defining to others the primary tasks or program goals of a service unit.

In terms of global application, the study suggests that the GPM can be utilized in other units/programs. Special advantages the GPM has which could prove useful in other units/programs include no set of predetermined goals, administered easily to a wide range of staff at different levels, and small time investment which is quickly scored and analyzed on relevant standards. It can also be used as a follow-up measure for goal attainment, if used on a pre/postbasis. A search of the literature revealed very few follow-up studies being performed on program management. This application of the GPM could serve as a highly beneficial tool for administrative planning were it to be administered at intervals on a pre/postbasis. Besides being utilized as a corrective measure, another possibility is the GPM's adaptability for in-service education of staff, by virtue of providing a means for clearly defining to others the primary tasks or program goals of a service unit.

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APPENDICES

APPENDIX A

DISTRICT V COMMUNITY MENTAL HEALTH CENTER

INPATIENT UNIT (7500)

TITLE	LOCATION
RN, CHARGE-NURSE	CLIFF TOWERS
COMMUNITY SERVICE AIDE II	"
RN, CHARGE-NURSE	"
RN, COORDINATOR	"
MH ASSOCIATE I	"
RN, CHARGE-NURSE	"
LVN, RELIEF-CHARGE	"
M.D., PHYSICIAN	"
COMMUNITY SERVICE AIDE II	"
RN, CHARGE-NURSE	"
RN, HEAD-NURSE	"
*SECRETARY	"
MH ASSOCIATE I	"
COMMUNITY SERVICE AIDE	"
B.S., MH SPECIALIST	"

DAY HOSPITAL (7502)

TITLE	LOCATION
MH ASSOCIATE I	ZANGS CENTER
O.T.R., COORDINATOR	"
MH ASSOCIATE I	"
R.M.T.	"
COMMUNITY SERVICE AIDE II	"

CONSULTATION & EDUCATION (7503)

TITLE	LOCATION
MSW, COORDINATOR	CLIFF TOWERS

EMERGENCY (7504)

TITLE	LOCATION
AA, MH ASSISTANT	CLIFF TOWERS
RN	"
PH.D., COORDINATOR	"
MH ASSISTANT II	"
M.S. PSYCHOLOGIST	"
MSW, SOCIAL WORKER	"

OUTPATIENT (7501)

TITLE	LOCATION
MSW, SOCIAL WORKER	ZANGS CENTER
*CLERK I, RECEPT. P/T	CLIFF TOWERS
*SECRETARY III	IRVING CENTER
M.D., PSYCHIATRIST I	CLIFF TOWERS
RN, NURSE II	PUEBLO CENTER
M.A., UNIT COORDINATOR	"
MH ASSOCIATE I	"
ACSW, SOCIAL WORKER	"
*INSURANCE CLERK	CLIFF TOWERS
MSW, SOCIAL WORKER	PUEBLO CENTER
M.D. PSYCHIATRIST	CLIFF TOWERS
MEDICAL/CLINICAL DIR.	"
COMMUNITY SERV. AIDE II	"
*SECRETARY I	PUEBLO CENTER
M.A. COUNSELOR	CLIFF TOWERS
M.D. PSYCHIATRIST	"
D.O. PSYCHIATRIST	"
MSW, SOCIAL WORKER	ZANGS CENTER
*CLERK I, RECEPTIONIST	CLIFF TOWERS
CASEWORKER ASSISTANT	"
*RPH. STAFF PHARMACIST	"
MH ASSISTANT III	PUEBLO CENTER
B.A., ADMIN. TECH II	ZANGS CENTER
M.D., PSYCHIATRIC/RES.	"
M.A. COUNSELOR	"
M.A. PSYCHOLOGIST	CLIFF TOWERS
RN, NURSE II	ZANGS CENTER
*SECRETARY I	"
MH ASSISTANT II	CLIFF TOWERS
*MEDICAL RECORDS CLERK	"
*DRUG CLERK	"
M.D. PSYCHIATRIST	PUEBLO CENTER
PH.D., PSYCHOLOGIST	ZANGS CENTER

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ADMINISTRATION

TITLE	LOCATION
DIRECTOR	CLIFF TOWERS
*BUSINESS MANAGER	"
*ASSISTANT DIRECTOR	"
*SECRETARY II	"
*SECRETARY III	"

*Staff not included in study.

APPENDIX B

HOW IS THE GOAL ATTAINMENT SCORE CALCULATED?

This commentary explains the mechanics of calculating the Goal Attainment Score which is one possible method of expressing the results of the Goal Attainment Scaling system. For the purposes of demonstration, the following sample Goal Attainment Follow-up Guide will be used:

	Scale 1: Happiness (w_1 = 10)	Scale 2: Creativity (w_2 = 5)	Scale 3: Accuracy (w_3 = 20)
MOST UNFAVORABLE -2			
LESS THAN EXPECTED -1		*	
EXPECTED 0	*		
MORE THAN EXPECTED +1			
MOST FAVORABLE +2			*

On this sample "w" stands for weight. Thus, this Goal Attainment Follow-up Guide shows that the intake interviewer thought that "happiness" should be weighted 10, twice as much as the "Creativity" scale which was only weighted 5.

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Each of the five outcome levels, "most favorable" through "most unfavorable," should be assigned a value (+2 through -2) as indicated on the sample.

The "*" shows the "outcome level" of the client as scored by the follow-up rater. In other words, the client was scored at the expected level (0) on Scale 1, at less than expected (-1) on Scale 2, and at (+2) on Scale 3. On a real Goal Attainment Follow-up Guide, of course, each scale would contain items pertaining to one of the major concerns for the client. THE WEIGHTS AND RAW SCORES ON THE GOAL ATTAINMENT SCALING GUIDE ARE THE ONLY NUMBERS NEEDED TO CALCULATE THE GOAL ATTAINMENT SCORE. In the formula below, "x" refers to the "raw score" or "outcome level."

* * * * * * * * * * * * * * *

The formula for calculation is:

$$\text{Goal Attainment Score} = 50 + \frac{10 \sum w_i x_i}{\sqrt{.7 \sum w_i^2 + .3 (\sum w_i)^2}}$$

or $50 + 10$ (w_1 times x_1 + w_2 times x_2 + ... out to as many items as you have scales for)

divided by

$$\sqrt{.7 \, (w_1 \text{ squared} + w_2 \text{ squared} + \text{...out to as many items as you have scales for}) + .3 \, (\text{All the weights added together})^2}$$

The formula for this sample would read:

Goal Attainment Score =

$$50 + \frac{10(w_1x_1 + w_2x_2 + w_3x_3)}{\sqrt{.7\{(w_1)^2 + (w_2)^2 + (w_3)^2\} + .3(w_1 + w_2 + w_3)^2}}$$

* * * * * * * * * * * * * *

Using the Weights and Raw Scores from the demonstration guide above:

Goal Attainment Score =

$$50 + \frac{10 \ (0 \ \text{times} \ 10) + (-1 \ \text{times} \ 5) + (2 \ \text{times} \ 20)}{\sqrt{.7\{(10)^2 + (5)^2 + (20)^2\} + .3(10 + 5 + 20)^2}} =$$

$$50 + \frac{10(0 - 5 + 40)}{\sqrt{.7(100 + 25 + 400) + .3(35)^2}} =$$

$$50 + \frac{10(35)}{\sqrt{.7(525) + .3(1225)}} = 50 + \frac{350}{\sqrt{367.5 + 367.5}} =$$

$$50 + \frac{350}{\sqrt{735}} = 50 + \frac{350}{27.11} = 50 + 12.91 = 62.91$$

APPENDIX C

GOAL PERCEPTION MEASURE

SCALE HEADINGS AND SCALE WEIGHTS

LEVELS OF PREDICTED ATTAINMENTS	SCALE 1: (w_1 =)	SCALE 2: (w_2 =)	SCALE 3: (w_3 =)	SCALE 4: (w_4 =)	SCALE 5: (w_5 =)
Most unfavorable outcome thought likely					
Less than expected success					
Expected level of success					
More than expected success					
Most favorable outcome thought likely					

GOALS PERCEPTION MEASURE

IDENTIFICATION DATA

TITLE:_____ AGE:_____ RACE:_____

SEX:_____

DISCIPLINE:_____

_____

MAJOR COMPONENT SERVICE UNIT & LENGTH OF TIME IN UNIT:_____

_____

_____

PREVIOUS EXPERIENCE IN MENTAL HEALTH:_____

_____

If you have filled out above, please continue. If not,
please fill out above before continuing.

APPENDIX E

Instructions: (please read instructions)

1. First, on the Goal Perception Measure form on the scales across the top (horizontal scales), please list the major goals of the District V Day Treatment Program as you see them.

2. Then weight each goal according to the degree of importance which you perceive as appropriate within a day treatment program. These are to be weighted from 0-100, where 0 indicates no importance and 100 indicates the most critical level of importance.

3. The goals and the weight (w) assigned to each must be entered across the top of the Goals Perception Measure form (see examples which follow).

4. Once the above has been completed, you must define by statements at least 3 of the 5 scale levels of predicted attainments which corresponds to levels of attainment indicated. (See example where scale 1 has all 5 specifically identified and scale 2 has 3 identified.)

5. Finally, place an X in whichever of the vertical boxes where you think the District V Day Treatment Program is currently performing in terms of the goals you have identified and weighted.

6. In summary, you must do the following:

   a. Identify day treatment goals <u>you</u> perceive as important and enter them on the form;

   b. Weight each of the goals you have identified (from 0-100) and enter these weights on the form;

   c. Define the level of performance appropriate to <u>at</u> <u>least three</u> of the vertical categories and enter these on the form;

   d. Place an <u>X</u>, for each goal, in that vertical box which must appropriately represent the extent to which the current Day Treatment Program is achieving that goal.

APPENDIX F

EXAMPLE SHEET: GOAL PERCEPTION MEASURE

GOALS OF A TYPICAL AUTO REPAIR GARAGE

(W = 0 means absolutely no importance; W = 100 means absolutely importance for function)

SCALE HEADINGS AND SCALE WEIGHTS

LEVELS OF PREDICTED ATTAINMENTS	SCALE 1: Brake Repair $(w_1 = 80)$	SCALE 2: Changing Batteries $(w_2 = 10)$	SCALE 3: $(w_3 = \quad)$	SCALE 4: $(w_4 = \quad)$	SCALE 5: $(w_5 = \quad)$
Most unfavorable outcome thought likely	Brakes never fixed	Battery hooked to charger in reverse; ruining battery			
Less than expected success	Brakes work well for less than warranty period				
Expected level of success	Brakes work well for slightly greater than 2 years warranty period X				

LEVELS OF PREDICTED ATTAINMENTS	SCALE 1: Brake Repair ($w_1 = 80$)	SCALE 2: Changing Batteries ($w_2 = 10$)	SCALE 3: ($w_3 = \quad$)	SCALE 4: ($w_4 = \quad$)	SCALE 5: ($w_5 = \quad$)
More than expected success	Brakes work well for significantly greater than warranty period	Battery adequately charged for normal operation X			
Most favorable outcome thought likely	Brakes repaired for entire, remaining life of car	Battery fully charged			

FREQUENCY TABULATION OF GOAL STATEMENTS BY DISCIPLINE

Goal Statement	Discipline													
	SW	Psiat	RN	Psych	PP	O	Total	Mod	SW	Psiat	RN	Psych	PP	O	Total
G-1				2	1		3	M-1		1	1	1			3
A	1			1	1	1	4	A					1		1
B	1				1		2	B			3		2		5
C	5	1	6	1	3	1	17	C	2	1	2	1		1	7
D	1		1		1	1	4	D							
E	1	1	2		1		5	D-1			2		1	1	4
F	2	1	3		2	3	11	E			4		1		5
G					2	1	3	M-2							
H				2			2	A	1		1				2
I	1						1	M-3							
J				2	1		3	A	2		1		1		4

Goal Statement		SW	Psiat	RN	Psych	PP	O	Total	Mod	SW	Psiat	RN	Psych	PP	O	Total
						Discipline										
G-2									B	1						1
	A	2	1	2	3	1	1	10	C	1		1		2		4
	B	3	1	6	2	4	3	19	M-4	3			1	1		5
G-3		1	1	1	1	2		6	M-5		1				1	2
	A			1	1			2	M-6		1					1
G-4	A				1			1	M-7							
	B	1	1	1			1	4	A				1			1
G-5			1	1	2			4	B			1	1	1		3
G-6		4	2	3	2	3	1	15	M-8	1	1		1			3
G-7							1	1								
		23	10	27	21	23	15	119		11	5	16	6	10	3	51

RAW DATA FOR GOAL PERCEPTION GROUPS

S	Disc.	Maj. Service Comp.	Exp. in Unit (mos.)	Sex	Age	Ethnic Groups	Prev. Exp. (mos.)	Score
01	Parapro-fessional	In-Patient	36	M	38	B	12	57
02	Social Worker	Other	5	F	36	A	36	50
03	Nurse	Emergency	15	F	37	A	6	56
04	Nurse	Out-Patient	24	F	36	A	3	48
05	Parapro-fessional	In-Patient	18	F	22	A	12	39
06	Nurse	In-Patient	24	F	40	A	84	71
07	Social Worker	Out-Patient	18	M	27	B	26	65
08	Psycholo-gist	Out-Patient	24	M	31	A	18	56
09	Nurse	In-Patient	12	M	51	A	84	50
10	Social Worker	Out-Patient	1	F	44	A	36	50

S	Disc.	Maj. Service (Comp.	Exp. in Unit (mos.)	Sex	Age	Ethnic Groups	Prev. Exp. (mos.)	Score
11	Nurse	In-Patient	22	F	38	A	48	57
12	Other	Out-Patient	24	M	30	A	24	57
13	Psychologist	Out-Patient	27	F	35	MA	29	71
14	Paraprofessional	Out-Patient	42	F	44	B	36	50
15	Paraprofessional	Day Treatment	39	F	24	B	18	46
16	Other	Day Treatment	39	F	34	A	96	54
17	Nurse	In-Patient	18	M	36	A	120	57
18	Psychologist	Emergency	1	M	27	A	30	43
19	Psychiatrist	Day Treatment	5	M	27	A	30	54
20	Paraprofessional	Out-Patient	39	M	23	MA	21	50
21	Psychiatrist	In-Patient	24	M	52	A	348	47

S	Disc.	Maj. Service Comp.	Exp. in Unit (mos.)	Sex	Age	Ethnic Groups	Prev. Exp. (mos.)	Score
22	Psychologist	Other	5	M	25	A	17	58
23	Other	In-Patient	18	F	44	B	180	50
24	Nurse	In-Patient	10	F	23	A	30	63
25	Social Worker	Out-Patient	1	F	25	A	6	50
26	Nurse	Other	36	F	39	A	168	40
27	Paraprofessional	Day Treatment	39	M	26	MA	0	50
28	Paraprofessional	In-Patient	7	F	24	B	20	33
29	Psychologist	Out-Patient	30	M	36	A	60	62
30	Nurse	In-Patient	14	M	26	A	54	59
31	Paraprofessional	In-Patient	18	M	23	MA	48	50
32	Paraprofessional	Day Treatment	10	F	23	A	0	50

S	Disc.	Maj. Service Comp.	Exp. in Unit (mos.)	Sex	Age	Ethnic Groups	Prev. Exp. (mos.)	Score
33	Social Worker	Out-Patient	27	F	25	B	4	50
34	Psycholo-gist	Emergency	9	M	31	A	66	63
35	Social Worker	Out-Patient	36	M	33	A	60	49
36	Nurse	Out-Patient	10	F	42	A	48	55
37.	Social Worker	Day Treat-ment	6	F	30	A	18	50
38	Social Worker	Out-Patient	14	M	32	A	24	36
39	Other	Out-Patient	5	F	22	A	34	58
40	Psychia-trist	Out-Patient	8	F	27	A	44	35