



Peer Outcomes Protocol Project

Peer Outcomes Protocol (POP): Psychometric Properties of the POP

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This protocol was developed as a project of the University of Illinois at Chicago, National Research and Training Center on Psychiatric Disability, directed by Judith A. Cook, Ph.D. The Center is supported by the National Institute on Disability and Rehabilitation Research, U.S. Department of Education, and the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration (Cooperative Agreement #H133B000700). The opinions expressed herein do not necessarily reflect the position, policy, or views of either agency, and no official endorsement should be inferred.

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The authors would like to acknowledge the POP Consumer/Survivor Advisory Board members, who provided input on multiple drafts of the Protocol, as well as Richard Evenson, Ph.D., Research Professor Emeritus at the Missouri Institute of Mental Health, who analyzed the psychometric properties of the instrument. Also invaluable was the assistance of Diane O'Rourke, MA, of the UIC Survey Research Laboratory, who helped prepare the final versions of the Protocol and its companion pieces.

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Introduction

In 1996, the University of Illinois at Chicago National Research and Training Center (NRTC) on Psychiatric Disability (www.psych.uic.edu/uicnrte), together with the Missouri Institute of Mental Health (www.mimh.edu/mimhweb/mimh), embarked upon the Peer Outcomes Protocol Project. This project was funded by the U.S. National Institute on Disability and Rehabilitation Research and the Center for Mental Health Services. Jean Campbell, Ph.D., headed up this project. Data were collected at The St. Louis Empowerment Center in St. Louis, Missouri under the supervision of Kimberlee Einspahr, Ph.D. Rita Adkins helped design the database and produced data tables for this report. Data were analyzed by Richard Evenson, Ph.D. a statistical consultant to the Missouri Institute of Mental Health.

Purpose: The Peer-Support Outcomes Protocol Project developed, field-tested, and distributed an evaluation protocol to measure service/programmatic outcomes of and satisfaction with community-based peer support program for persons with mental illness, including programs that are peer-run. Specific outcome domains were organized into individual modules within the Protocol.

Need: Given the tremendous growth in peer support and self-help organizations, there is a need for an outcomes protocol with measures derived from the point of view of people with psychiatric disabilities themselves. Thus, the outcomes evaluation protocol embodies consumer values; (2) is consumer developed and administered; (3) is consistent with peer support philosophy; and (4) recognizes the proven abilities of consumers to conduct survey and outcome studies.

Use: The outcomes protocol can be used by peer support and consumer provider organizations to gauge the results of rehabilitation services delivered by and for peers with psychiatric disabilities. Widespread adoption of the protocol will (1) assist the consumer self-help field to assess its own outcomes; (2) present service outcomes to public funding authorities and managed care organization; (3) improve the organization and delivery of peer support programs.

Method

The interviewers for the Peer-Support Outcomes Protocol (POP) psychometric testing were mental health consumers who were trained for 2-1/2 days, with an extensive training manual and question-by-question guides. During training, the interviewers participated in role-playing and practicing with partners in front of the group.

The POP was developed in a series of phases, beginning with a meta-analysis of evaluation tools used nationally by community-based peer support programs. Items were categorized into domains and ranked for importance through concept-mapping with a group of consumers. The Protocol was then reviewed by a Consumer Advisory Board and further revised by the UIC NRTC project staff. A series of pilots were then conducted to test modes of implementation: pen & pencil, telephone, and face-to-face. It was determined that the face-to-face mode was preferable due to the length of the protocol and the quality of responses using this interviewing method.

A second field test was conducted with 15 research participants to determine interviewing problems related to the clarity of questions, appropriateness of response sets, response burden, and overall satisfaction of respondents with the tool and the interviewing process. In the protocol development phase, seven drafts were produced through collaboration between the UIC NRTC, the UM-Columbia Missouri Institute of Mental Health, and the POPP Consumer Research Advisory Board. Six nationally recognized mental health services researchers then reviewed the protocol, and based on feedback from these professionals, a final draft was generated to be used in the psychometric testing of the protocol during July—September 1999.

The sample consisted of the first 100 members attending the St. Louis Empowerment Center who consented to participate beginning with the first day of interviewing. A re-test sample (N = 41) was done for randomly selected subjects who were available within two weeks after the first interview.

In addition to the Protocol, a number of established scales were also collected at re-test (N = 41) and served as criterion scales to measure concurrent validity. These scales included: (1) Rosenberg Self-Esteem Scale (Rosenberg, M., (1965), *Society and the Adolescent Self-Image - Appendix D - Self Esteem Scale*. Princeton, NJ: Princeton University Press, p. 305); (2) The Recovery Assessment Scale (Corrigan, P.W., Giffort, D., Rasid, F., Larry, M., & Okeke, I, (0000), *Recovery as a Psychological Construct*. Chicago: Center for Psychiatric Rehabilitation. Personal Communication: Corrigan, P.W.); (3) The Empowerment Decision-Making Scale (A Consumer-Constructed Scale to Measure Empowerment Among Users of Mental Health Services. Rogers, E.S., Chamberlin, J., Ellison, M.L., & Crean, T., (1997), *Psychiatric Services*, V48, N8, 1042-1047); and, (4) The CSQ-8 Satisfaction Scale (Hargreaves, W.A. & Attkinson, C.C., (1978), *Evaluating Program Outcomes*. In Attkinson, Hargreaves, Horowitz, and Sorensen (Eds.) *Evaluation of Human Service Programs*. New York: Academic Press).

The protocol that was subjected to psychometric analysis consisted of 198 items divided into ten modules. The modules were as follows: (1) Basic Demographics (items 1-19), SF-12 Health Scale (Ware, Kosinsky & Keller, (1996)(20-31) and Client Status and Diagnosis (32-39); (2) Services Utilized (40-42); (3) Crisis & Hospitalization (43-44); (4) Employment (45-64); (5) Housing (65-69) and Community Life (70-76); (6) Social Support (77-100); (7) Quality of Life (101-118); (8) Recovery/Empowerment/Personhood (119-159); (9) Crime & Violence (160-165); and, (10) Program Satisfaction (166-198). The protocol used in the testing is shown in *Appendix A* (all Appendices for this report can be obtained by contacting the UIC National Research and Training Center on Psychiatric Disability).

Use of the Psychometric Testing Results to Create the Final Protocol

At the conclusion of the testing described on the following pages, a series of recommendations was made regarding the next stage of revision of the protocol. These recommendations can be found on page 33. Using these recommendations the authors developed the final version of the POP questionnaire, along with an administration manual, a question-by-question guide, and a set of response cards. This is the version that is currently being distributed for use by the field.

Analysis Results: Step 1

The basic demographics of the baseline and the re-test samples are shown in **Table 1**. It can be seen that they are reasonably consistent.

Table 1
Sample Description

	Baseline (N=100)	Retest (N=41)
Male	69%	63%
Female	31%	37%
White	40%	39%
African-American	57%	56%
Other	3%	7%
Married	8%	12%
Widowed	5%	5%
Divorced	26%	17%
Separated	8%	7%
Never Married	53%	59%
SSDI Income	15%	24%

Table 2 provides a further description of the baseline sample. It can be seen that the sample can be characterized as having "severe and persistent" mental illness.

Table 2
Other Pertinent Baseline Description
(N =100)

ITEM	FREQUENCY
Victims of Crime	26
Veterans	21
Lifetime Alcohol Problems	60
Lifetime Drug Problems	57
Hospitalized at least once	54

Ethnic Background	
American Indian	5
Cuban	1
Iranian	1
Canal Zone	1
Other & Multi-Racial	6

Education	
Some High School	23
High School Graduate	34
Some College	22
AA Degree	3
BA Degree	9
Post-graduate	4

Government Benefits	
Social Security	13
SSDI	15
SSI	37
Service Disability	3
Other Welfare	20

Ever Diagnosed	
Yes	56
Not Sure	14
No	30

Diagnosis	
Schizophrenia	13
Schizo-Affective	9
Major Affective	24
Anxiety	17
Disassociation	4
Personality Disorder	8
	27
Other	16

Taking Psychotropic Medication	41
---------------------------------------	----

Side Effects	
Mild	5
Moderate	10
Severe	1
Skipped	59

Significant Emotional Problems	
This past 6 months	52
Hospitalization past 6 months	14

Hospitalizations Past Year	
0	53
1	10
2	7
3	2
4	2
15	1
Skipped	25
Involuntary Hospitalizations	6

Housing	
Apartment	43
House	23
Shelter	16
Street	14
Other	4

Live With	
Parents	3
Spouse	22
Friends	14
Peers	13

Current Work	
For Pay	49
School	11
Retired	7
Care for Others	15
Volunteer	44

Help With Medication	44
Help Managing Money	20
Help With Cooking	17
Help With Housekeeping	16

Attendance at Center	
Almost Daily	30
2 or more per week	41
1 per week	16
1 per month	11
Less frequently	2

Felt Program Helped	33
Helped Keep Out of Hospital	38

Table 3 shows Means and Standard Derivations (dispersal) of the Protocol components. It also gives Cronbach alpha for each component. It can be seen that most of the components have reasonable inter-item consistency (alpha), although alpha seems a little low for the SF-12 and for Crime & Violence.

Table 3
Psychometrics of the Scale Proposals (N = 100)

	MEAN	SD	ALPHA
SF-12 (12 items)	30.13	3.06	.51
Crisis (12 items)	83.05	8.48	.94
Employment (7 items)	21.74	6.74	.68
Housing & Community (7 items)	17.72	4.90	.60
Social Support (24 items)	78.14	11.29	.74
Quality of Life (18 items)	54.99	9.96	.79
Empowerment (40 items)	133.22	21.95	.95
Satisfaction	103.88	15.05	.88

(33 items)			
Coercion	45.09	6.40	.84
(10 items)			
Social Acceptance	32.35	9.05	.92
(8 items)			
Crime & Violence	10.85	1.30	.60
(6 items)			

Table 4 gives the test-retest correlations for the Protocol components. Most of these seem quite adequate, although employment, housing and social supports, and the SF-12 are fairly low.

Table 4
Test - Retest Correlations (N = 41)

Crisis	.63
Employment	.33
Housing	.41
SocSupport	.48
QOL	.59
Empower	.68
Crime	.86
Satisfaction	.76
Coercion	.82
SF-12	.41
SocAccept	.66

The correlations between the Protocol components (N = 100) and the validity scales (N = 41) are rather inconsistent and low. It will be seen that the component seldom agrees highly with the similarly named validity scale. The inter-correlations over .30 are shown in **Table 5**. The validity scales are labeled with a (V).

Table 5
Scale Inter-Correlations
(Validity Scales Marked with V)

	SF-12	Crisis	Employ	Housing	SocSupport	QOL	Empowr
SF-12	1.00	-	-	-	-	-	-
Crisis	-	1.00	-	-	-	-	-
Employ	-	-	1.00	-	.34	-	-
Housing	-	-	-	1.00	.62	.49	.40
SocSupport	-	-	-	-	1.00	.61	.64
QOL	-	-	-	-	-	1.00	.66
Empowr	-	-	-	-	-	-	1.00
Crime	-	-	-	-	-	-	-
Satisfact	-	-	-	-	-	-	-
Coerce	-	-	-	-	-	-	-
SocAccept(V)	-	-	-	-	-	-	-
Rosen (V)	-	-	-	-	-	-	-
Recov (V)	-	-	-	-	-	-	-
Empowr (V)	-	-	-	-	-	-	-
QS-8 (V)	-	-	-	-	-	-	-

It is a fairly common finding that very broad scales (those with a number of constructs included in one scale) often will show good internal-consistency. But when correlated with more highly focused scales (such as the validity scales) the proposed scales will not show up too well. The answer, of course, is continued refinement of the Protocol Scales.

Discussion

Since the components of the Protocol need refinement, a factor-analysis was done to help with this needed process. It should be noted that factor-analysis usually needs at least three times as many subjects as items, and the Protocol has 198 items and only 100 subjects. Nevertheless a Principal Components Analysis with Varimax Rotation was done to help guide the refinement process. The results are shown in **Table 6**. It accounted for 60% of the variance. The 1st component had an eigenvalue of 38.7. All eigenvalues over 4.5 were rotated.

Table 6: Principal Component Analysis (Varimax Rotation)

FACTOR 1: Program Satisfaction (Eigenvalue = 38.7)

ITEM	LOADING
This program helps me to believe that personal growth in my life is possible.	.86
This program helps me cope if I have an emotional crisis.	.85
This program helps me to understand what recovery involves for me.	.84
This peer support program in making a positive difference in how I feel about myself as a person.	.84
This program helps me cope if I have psychiatric problems.	.84
This program enables me to make contributions in life.	.82
This program helps me to improve the quality of my life.	.82
This program helps me to be hopeful about the conditions of my life.	.82
This program helps me become knowledgeable about mental health issues.	.82
This program helps my make positive changes in my life.	.81
This program helps me to have an active role in decisions about my mental health services.	.81
This program helps me have more choices in my life.	.80
This program helps me become self-sufficient in my life.	.79

At this program I get the kind of information that I need.	.78
This program helps me to have meaningful activities in my life.	.77
This program helps me make needed changes in the things that are important to me.	.77
Participation at this peer support program is making a positive difference in my social life.	.76
At this program I get information when I need it.	.75
I feel that program staff focus on my real, concrete needs.	.75
This program inspires me to believe that I can live independently.	.74
I would recommend this program to other mental health consumers.	.72
I feel that program staff are able to see me as a person who has strengths.	.72
I feel comfortable voicing my positive opinions of this program.	.71
I get the emotional support that I need from members in this program.	.67
This program helps me to have control over my daily routine.	.66
Being with members at this program helps me to have personal power.	.65
Overall, I am satisfied with this peer support program.	.65
In general, I feel that program staff actively promote my human rights.	.65
This program gives me hope that I will recover from mental illness.	.62
Overall, the program services are useful to me.	.62
I help members at this program when they need it.	.61
I feel comfortable socializing with members of this peer support program.	.61
This program helps me to worry less about having sufficient resources to live on in the future.	.61
This peer support program has helped me to improve my work situation.	.60
This program is helpful to me regarding my employment needs, such as choosing or keeping a job.	.59
This program helps protect my rights as a mental health consumer.	.59
This program inspires me to believe that meaningful work is possible for me.	.58
This program helps to protect my basic human rights.	.58
This program helps me to do things that are enjoyable.	.58
I feel that I do not have to hide my diagnosis of mental illness from members of this program.	.54
I am comfortable discussing work issues with my peers in this program.	.53
I give emotional support to other members in this program.	.51
This program helps me get respect from important people in my life.	.51
I feel safe talking about personal matters with program staff.	.51
In general, program staff are competent.	.48
I feel that I am involved in the planning for the future of this	.48

program.	
This program is helpful to me regarding my educational needs, such as finishing a degree, or getting into a training program.	.47
I can turn to program members at this peer support program if I need help in doing things such as moving, getting a ride.	.46
I am comfortable asking people to take me seriously.	.46
This program is helpful to me regarding my recreational needs, such as being involved in a hobby, playing games, or watching TV.	.46
I feel that I get the respect that I deserve from important people in my life.	.45
The social relationships that I have with my peers in this program are what I want them to be.	.44
I know what to do if I experience discrimination in the workplace.	.43
I feel that there are few power struggles between members and program staff in the program.	.42
I know what to do if I experience discrimination from staff at this program.	.41
I have things to do each day that give meaning to my life.	.40
In general, members at this program are considerate.	.40
I feel program staff respect my wishes regarding the confidentiality of my personal information.	.39
I am making positive changes in my life.	.38
I feel that program staff ignore my individual problems.	-.56

FACTOR 2: Living Support (17.3)

ITEM	LOADING
Do you receive any help with cooking?	.84
Friends?	.84
People at this peer support program?	.83
Staff from another program?	.83
Family?	.83
Other person?	.82
Spouse or partner?	.81
Do you receive any help with housekeeping?	.79
Family?	.84
Friends?	.84
People at this peer support program?	.83
Other person?	.83
Spouse or partner?	.82
Staff from another program?	.78

FACTOR 3: Emotional Support (14.5)

ITEM	LOADING
Do you feel that his program helped you stay out of the hospital during the past 6 months?	.93
Did the program help you stay out of the hospital by offering you another place to stay?	.92
Did the program help you stay out of the hospital by providing support whenever you needed it?	.92
Did the program help you stay out of the hospital by giving you someone to talk to?	.92
Did the program help you stay out of the hospital by helping you cope with symptoms?	.92
Did the program help you stay out of the hospital by involving other people in your life?	.91
Do you feel that this program helped prevent these difficulties from turning into a psychiatric crisis during the past 6 months?	.86
Have you had any significant emotional difficulties in the past six months?	.84
I often feel lonely.	-.42

FACTOR 4: Money Management (12.2)

ITEM	LOADING
Do you receive any help in managing your money?	.96
People at this peer support program?	.96
Family?	.96
Friends?	.86
Staff from another program?	.95
Spouse or partner?	.95

FACTOR 5: Self Satisfaction (8.7)

ITEM	LOADING
I am becoming self-sufficient in my life.	.77
In general, I am satisfied with the kinds of choices I can make in my life.	.67
I can change the things about my life that are important to me.	.65
I feel that I have contributions to make in life.	.63
In general, I am satisfied with who I am as a person.	.59
I am making positive changes in my life.	.57
I have things to do each day that give meaning to my life.	.54
I usually can handle life's ups and downs.	.53
I believe that personal growth in my life is possible	.52
I understand what recovery involves for me.	.49
I have control over my daily routine.	.48
I feel that I get the respect that I deserve from important people in my life.	.48
I feel that I can trust my own decisions.	.47
I am knowledgeable about mental health issues.	.46
I feel that my opinions count.	.45
I am hopeful about the conditions of my life in general.	.44
If I am having emotional problems, usually I can cope.	.43
I take an active role in decisions about my mental health services.	.42

FACTOR 6: Stigmatize (8.4)

ITEM	LOADING
...feel or treat you like you are violent or dangerous?	.78
...feel or treat you like you are unpredictable?	.75
...think that you do not know what is in your own best interests?	.75
...think or treat you like you are incapable of caring for children?	.74
...feel you are a child or treat you like a child?	.73
...feel or treat you like you are incapable of having a satisfying relationship with another man or woman?	.73
...think or treat you like you are incapable of holding a job?	.69
How often do people treat you differently when they know you have a mental diagnosis or have received mental health service?	.66
I feel that I get the respect that I deserve from important people in my life.	.39
I do not feel physically safe when I am at this program.	-.43

FACTOR 7: Felt Discrimination (7.4)

ITEM	LOADING
I have to butter up to staff to get what I want.	.74
I have to butter up to staff to get what I need.	.73
I have to do something staff wants to get something I want.	.68
I feel like staff will get back at me if I do not do what they want me to do.	.63
I feel that program staff are respectful of my racial or ethnic background.	.50
Have you ever experienced discrimination in this program?	.49
In general, program staff are competent.	.49
Staff threatens me in other ways.	.47
I feel program staff are respectful of my gender.	.44
I am hopeful about the conditions of my life in general.	.43
I feel program members are respectful of my racial or ethnic background.	.43

FACTOR 8: Services (7.1)

ITEM	LOADING
Domestic Violence Shelter Program.	.73
Partial or day hospitalization services.	.72
Supervised or Supported living program.	.58
Legal Aid.	.57
Services for alcohol use or abuse problems.	.56
Counseling.	.53
Crisis Intervention Service.	.51
Job Training or Vocational Program.	.50
Alternative therapy or treatment, such as body massage, herbs/homeopathic.	.50
Case Management.	.49
Crisis Hotline.	.47
Therapy.	.46
Services for drug use or abuse problems.	.45

FACTOR 9: Psychiatric Problems (6.6)

ITEM	LOADING
Substance abuse	.76
Other psychiatric diagnosis	.73
In the past month, have you been bothered by any side effects from the psychiatric medications you have taken?	.72
Are you currently taking any psychiatric medications?	.67
Have you ever been hospitalized for psychiatric reasons?	.63
Medication management by a psychiatrist or doctor.	.60
Therapy.	.49
Have you been diagnosed with a major mental illness?	.47
How old were you at your first psychiatric hospitalization?	-.56

FACTOR 10: QOL (6.4)

ITEM	LOADING
I live in this neighborhood because I want to.	.69
I live in this kind of housing because I want to.	.66
The social relationships that I have with neighbors are what I want them to be.	.60
In general, I am satisfied with the neighborhood in which I live.	.52
The social relationships that I have with my friends are what I want them to be.	.48
The social relationships that I have with my family members are what I want them to be.	.47

FACTOR 11: Work Status (6.2)

ITEM	LOADING
What is your current hourly wage?	.75
I am not working, but I would like to be working.	.70
How many paid jobs do you have?	.56
If I have a psychiatric problem, usually I can do something about it before it becomes severe.	.48
I usually know if I am beginning to have a psychiatric problem.	.42
Are you currently working for pay?	-.77

FACTOR 12: Coercion (5.3)

ITEM	LOADING
Staff threatens me with the loss of my spending money.	.85
Staff threatens to make me take medication I do not want.	.84
Staff threatens me with hospitalization.	.83
In the past 6 months, how many of your hospitalizations were involuntary?	-.42

FACTOR 13: Self Confidence (5.1)

ITEM	LOADING
I know what to do if I experience discrimination from my landlord.	.59
I know what to do if I experience discrimination from staff at this program.	.58
Other services used.	.48
I am comfortable discussing work issues with my peers in this program.	.44
I know what to do if I experience discrimination in the workplace.	.44
I am comfortable asking people to take me seriously.	.40
How many paid jobs do you have?	-.47
About how many times have you been hospitalized for psychiatric reasons in your lifetime?	-.52

FACTOR 14: Legal (4.8)

ITEM	LOADING
Have you been in jail or prison in the past six months?	.71
Have you been arrested in the past six months?	.52

FACTOR 15: Social Activity (4.5)

ITEM	LOADING
During the past week, how often did you spend time with friends in recreational activities at this peer support program?	.68
About how often do you spend time with someone you consider more than a friend, like a boyfriend or girlfriend?	.63
This program is helpful to me regarding my recreational needs, such as being involved in a hobby, playing games, or watching TV.	.45
Spouse or partner	-.53

For purposes of a baseline assessment that will be useful to the St. Louis Empowerment Center, **Table 2** may be consulted. In addition, **Table 7** shows the members in this sample are not concerned with the question of coercion. For additional baseline data, consult *Appendix B* (all Appendices for this report can be obtained by contacting the UIC National Research and Training Center on Psychiatric Disability).

Table 7
Coercion Scale (N =100)

1.	I feel pressured by staff to do what they want me to do		
	Always	4	
	Most of the time	9	
	Some of the time	19	
	Rarely	19	
	Never	47	
	Skipped	1	
2.	I feel like staff will get back at me if I do not do what they want me to do		
	Always	6	
	Most of the time	6	
	Some of the time	16	
	Rarely	10	
	Never	61	
	Skipped	1	

3. I have to butter-up to staff to get what I want

Always	8
Most of the time	4
Some of the time	14
Rarely	8
Never	64
Skipped	1

4. I have to butter-up to staff to get what I need

Always	5
Most of the time	6
Some of the time	15
Rarely	6
Never	66
Skipped	1

5. I have to do something staff wants to get something I want

Always	8
Most of the time	6
Some of the time	20
Rarely	11
Never	54
Skipped	1

6. Staff threatens me with the loss of my housing

Always	0
Most of the time	0
Some of the time	1
Rarely	4
Never	94
Skipped	1

7. Staff threatens me with the loss of my spending money

Always	1
Most of the time	1
Some of the time	0
Rarely	4
Never	93
Skipped	1

8. Staff threatens me with hospitalization

Always	0
Most of the time	0
Some of the time	1
Rarely	3
Never	95
Skipped	1

9. Staff threatens to make me take medication I do not want

Always	0
Most of the time	1
Some of the time	0
Rarely	3
Never	95
Skipped	1

10. Staff threatens me in other ways

Always	3
Most of the time	1
Some of the time	4
Rarely	8
Never	83
Skipped	1

For purposes of further refinement of the proposed scales, the following should be kept in mind:

1. Items that are to be reversed, should be reversed on the questionnaire.
2. On the database, retest should be horizontal (a variable) rather than vertical (retest are not new subjects).
3. Crisis items actually include items (44 & 1-5) that are program evaluations.
4. Employment items actually include items (56-62) that are program evaluations.
5. Housing & Community Life items: some are demographic (65-67); some are help questions (68-69); some are community involvement items (70-74); some are program satisfaction (75-76).

6. Social Support items: items 77-84 are basic; items 85-93 are really QOL; items 94-100 are program satisfaction.
7. Quality of Life items: items 101-111 are basic; 112-118 are program satisfaction.
8. Recovery, Empowerment and Personhood items (119-159) include a variety of concepts, including recovery (119-133); discrimination (134-137); self-esteem (138-143); and, empowerment (144-165).
9. Program Satisfaction is fairly consistent (166-198). It includes items of "dissatisfaction" as well.
10. Considering the low correlations between the protocol elements and the criterion tests, it might be helpful to try to check whether the same interviewer was used at baseline and retest. Otherwise you are confounding person variance with method variance.

The results of the Factor Analysis may help in the "refinement" decisions to be used in further study of the protocol.

The strength of this Protocol, of course, is that it reflects the ideas, wordings, and constructs of mental health consumers. As such, it should prove useful in evaluation.

Analysis Results: Step 2

In an attempt to make this protocol more useful, items were regrouped into 15 scales. In particular, this regrouping was done in order to make the various scales more focused and specific. It was also hoped that this would result in better psychometrics, such as reliability (kappa and test-retest) and correlation with criterion scales.

SOCIAL ACTIVITY: (items 77-84)

77. How often did you spend time with friends or family in recreational activities.
78. How often did you spend time alone in recreational activities?
79. How often did you go to clubs, church, or other meetings in your community?
80. How often did you spend time with friends in recreational activities at the peer support center?
81. About how often do you visit with someone who does not live with you?
82. About how often do you telephone someone who does not live with you?
83. About how often do you do something with another person that you planned ahead of time?
84. About how often do you do something with another person you consider more than a friend, like boyfriend of girlfriend?

COERCION: (items CQ1-10)

1. I feel pressured by staff to do what they want me to.

2. I feel like staff will get back at me if I do not do what they want me to do.
3. I have to butter up to staff to get what I want.
4. I have to butter up to staff to get what I need.
5. I have to do something staff wants to get something I want.
6. Staff threatens me with the loss of my housing.
7. Staff threatens me with the loss of my spending money.
8. Staff threatens me with hospitalization.
9. Staff threatens to make me take medication I do not want.
10. Staff threatens me in other ways.

CRIME: (items 160-165)

160. Have you been a victim of a violent crime, such as assault, robbery, rape, or abuse, in the past 6 months?
161. Have you been a victim of a non-violent crime, such as theft, in the past 6 months?
162. Have you been arrested in the past 6 months?
163. Have you been in jail or prison the last 6 months?
164. I am experiencing physical abuse in my life.
165. I am experiencing sexual abuse in my life.

DISCRIMINATION: (items 134-137)

134. Have you ever experienced discrimination in this program?
135. I know what to do if I experience discrimination from staff.
136. I know what to do if I experience discrimination in the workplace.
137. I know what to do if I experience discrimination from my landlord.

STIGMA: (items ASA 1-8)

1. How often do people treat you differently when they know you have a mental diagnosis or have received mental health services?
2. Do you think others feel or treat you like you are violent or dangerous?
3. Do you think others feel you are a child or treat you like a child?
4. Do you think others feel or treat you like you are unpredictable?
5. Do you think others think that you do not know what is in your own best interests?
6. Do you think others think or treat you like you are incapable of caring for children?
7. Do you think others think or treat you like you are incapable of holding a job?
8. Do you think others feel or treat you like you are incapable of having a satisfactory relationship with another man or woman?

CRISIS SUPPORT: (items 43a – 43b5, 44d1-5)

- 43a. Has this program helped prevent emotional difficulties from turning into psychiatric crisis?
- 43b. Has this program helped you stay out of the hospital?
- 43b1. Did it help by offering you another place to stay?
- 43b2. Did it help by providing support when you needed it?
- 43b3. Did it help by giving you someone to talk to?
- 43b4. Did it help by helping you cope with symptoms?

- 43b5. Did it help by involving other people in your life?
- 44d1. People from this program supported me while I was in the hospital.
- 44d2. People from this program ignored me while I was in the hospital.
- 44d3. People from this program called or sent cards while I was in the hospital.
- 44d4. (doublet)
- 44d5. People from this program made me feel like a failure for being in the hospital.

EMPLOYMENT SATISFACTION: (items 52-63)

- 52. In general I am satisfied with my employment status right now.
- 53. If I am having emotional problems, I am able to put them aside when I work.
- 54. I know how to get a job.
- 55. I know how to keep a job once I am hired.
- 56. This program has helped me to improve my work situation.
- 57. I feel comfortable talking to people in this program about losing SSI or SSDI as a result of returning to work.
- 58. I feel comfortable talking to people in this program about losing Medicaid or Medicare as a result of returning to work.
- 59. This program inspires me to believe that meaningful work is possible for me.
- 60. This program does not have enough resources to help program members find jobs.
- 61. This program does not have enough resources to help members keep jobs.
- 62. I am comfortable discussing work issues with my peers in this program.
- 63. I am not working, but I would like to be working.

COMMUNITY SATISFACTION: (items 70-74)

- 70. I am satisfied with the neighborhood in which I live.
- 71. I live in this neighborhood because I want to.
- 72. I live in this kind of housing because I want to.
- 73. I am involved in neighborhood activities not related to being a mental health consumer.
- 74. I feel rejected by people in my neighborhood because I am diagnosed with mental illness.

SOCIAL SATISFACTION: (items 85-93)

- 85. How do you feel about the things you do with other people?
- 86. How do you feel about the amount of time you spend with other people?
- 87. How do you feel about the people you see socially?
- 88. The social relationships with neighbors are what I want them to be.
- 89. The social relationships with my family members are what I want them to be.
- 90. The social relationships with my friends are what I want them to be.
- 91. The social relationships with my peers in this program are what I want them to be.
- 92. I often feel lonely.
- 93. I lack intimacy in my everyday life.

PROGRAM SATISFACTION: (items 75,76, 94, 96, 98-100, 144-159, 166-192, 194-198)

- 75. This program inspires me to believe that I can live independently.
- 76. I feel this program helps people find better housing.
- 94. I get the emotional support I need from members in this program.

96. I can turn to program members if I need help in doing things.
98. Participation at this peer support program is making a positive difference in my social life.
99. I feel comfortable socializing with members of this peer support program.
100. I feel that I do not have to hide my diagnosis of mental illness from members of this program.
144. This program helps me have more choices in my life.
145. This program helps me make positive changes in my life.
146. (doublet)
147. This program helps me have an active role in decisions about my mental health services.
148. This peer support program is making a positive difference in how I feel about myself as a person.
149. This program enables me to make contributions in life.
150. This program gives me hope that I will recover from mental illness.
151. This program helps me cope if I have psychiatric problems.
152. This program helps me cope if I have psychiatric problems.
153. This program helps me to understand what recovery involves for me.
154. This program helps me to believe that personal growth in my life is possible.
155. This program helps me to have control over my daily routine.
156. This program helps me make needed changes in the things that are important to me.
157. This program helps me become self-sufficient in my life.
158. This program helps me get respect from important people in my life.
159. Being with members at this program helps me to have personal power.
166. Overall, I am satisfied with this peer support program.
167. I am satisfied with the program facilities such as the condition of the rooms and building.
168. I do not feel physically safe when I am at this program.
169. Overall, the program services are useful to me.
170. This program is helpful to me regarding my employment needs.
171. This program is helpful to me regarding my housing needs.
172. This program is helpful to me regarding my educational needs.
173. This program is helpful to me regarding my recreational needs.
174. This program is helpful; to me regarding my transportation needs.
175. At this program, I get the kind of information that I need.
176. At this program I get the information when I need it.
177. In general, I feel that program staff actively promote my human rights.
178. I feel program staff are respectful of my racial or ethnic background.
179. I feel program members are respectful of my racial or ethnic background.
180. I feel program staff are respectful of my sexual orientation.
181. I feel program members are respectful of my sexual orientation.
182. I feel program staff are respectful of my gender.
183. I feel program members are respectful of my gender.
184. I feel program staff respect my wishes regarding the confidentiality of my personal information.
185. In general, program staff are competent.
186. I feel that program staff ignore my individual problems.
187. I feel safe talking about personal matters with program staff.
188. In general, members and staff do not get along with each other.
189. In general, members of this program are considerate.
190. I feel that I can change things about this program if I want to.
191. I feel that I am involved in the planning for the future of this program.

- 192. I would recommend this program to other mental health consumers.
- 193. I am able to accept criticism about myself from program staff.
- 194. I feel that program staff are able to see me as a person who has strengths.
- 195. I feel that there are few power struggles between members and program staff.
- 196. I feel that program staff focus on my real, concrete needs.
- 197. I feel comfortable voicing my positive opinions about this program.
- 198. I feel comfortable voicing my negative opinions about this program.

QUALITY OF LIFE (items 101-108, 111)

- 100. How do you feel about your life in general?
- 101. In general, I am satisfied with my physical health.
- 102. In general, I am satisfied with my emotional health.
- 103. In general, I am satisfied with how things are going in my life.
- 104. I often do things that are enjoyable.
- 105. I am hopeful about the conditions of my life in general.
- 106. Currently I have sufficient resources to live on (housing, clothing, food).
- 107. I worry about not having sufficient resources to live on in the future.
- 111. I have things to do each day that give meaning to my life.

PROGRAM QOL: (items 112-118)

- 112. This program helps me improve the quality of my life.
- 113. This program helps me to be hopeful about the conditions of my life.
- 114. (doublet)
- 115. This program helps me to worry less about having sufficient resources to live on in the future.
- 116. This program helps to protect my basic human rights.
- 117. This program helps to protect my rights as a mental health consumer.
- 118. This program helps me to have meaningful activities in my life.

PERSONHOOD: (items 138-143)

- 138. In general, I am satisfied with who I am as a person.
- 139. I feel that I get the respect that I deserve from important people in my life.
- 140. I am comfortable asking people to take me seriously.
- 141. I feel that my opinions count.
- 142. I feel that I can trust my own decisions.
- 143. I feel that I have contributions to make in life.

EMPOWERMENT: (items 120, 130-133, 144)

- 120. I take an active role in decisions about my mental health services.
- 130. I have control over my daily routine.
- 131. I can change the things about my life that are important to me.
- 132. I am becoming self-sufficient in my life.
- 133. I am knowledgeable about mental health issues.
- 144. This program helps me have more choices in my life.

RECOVERY: (items 119, 121-129)

119. In general, I am satisfied with my progress towards recovery from mental illness.
121. I usually know if I am beginning to have a psychiatric problem.
122. If I have a psychiatric problem, usually I can do something about it before it becomes severe.
123. I have hope that I will recover from mental illness.
124. I understand what recovery involves for me.
125. I believe that personal growth in my life is possible.
126. I am making positive changes in my life.
127. I usually can handle life's ups and downs.
128. If I am having emotional problems, usually I can cope.
129. In general, I am satisfied with the kinds of choices I can make in my life..

Table 8 shows the reliability statistic kappa (internal consistency) for the proposed scales (N=100) They range from .54 to .97 with most scales being very acceptable. The Crime scale actually reflects both the committing of crime and being the victim of crime, and is also one of the shortest proposed scales. The Discrimination scale is the shortest of the proposed scales, and reflects both experience and knowledge. These scales might well be included under "demographics" and not scored as scales.

Table 8
RELIABILITY (N =100)

SCALE	ALPHA
Social Activity	.55
Coercion	.84
Crime	.54
Discrimination	.56
Stigma	.92
Crisis Support	.94
Employment Satisfaction	.70
Community Satisfaction	.72
Social Satisfaction	.73
Program Satisfaction	.97
QOL	.82
Program QOL	.88
Self Esteem	.81
Empowerment	.70
Recovery	.79

Table 9 shows the test-retest correlations (N=41) of the proposed scales. The range is from .46 to .82, with most being very acceptable. The lowest is empowerment (.46), which is a short scale of only six items. The fact that the test-retest correlations are not higher may, of course, reflect impaired concentration or variable moods in this population.

Table 9
TEST - RETEST (N = 41)

<u>SCALE</u>	<u>CORRELATION</u>
Social Activity	.58
Coercion	.82
Crime	.86
Discrimination	.55
Stigma	.66
Crisis Support	.62
Employment Satisfaction	.51
Community Satisfaction	.73
Social Satisfaction	.51
Program Satisfaction	.76
QOL	.59
Program QOL	.71
Esteem	.68
Empowerment	.46
Recovery	.52

Several marker variables were included at the time of test-retest in order to examine concurrent validity. The new Recovery scale correlates .63 with the criterion recovery scale. The new Program Satisfaction scale correlates .55 with the criterion satisfaction scale. The new Empowerment scale correlates .40 with the criterion empowerment scale. These are all higher than the criterion correlations performed in the Step 1 analysis.

There was only a .17 correlations between the new Personhood scale and the criterion self esteem scale. This turned out to have two causes: (1) four items of the criterion scale need to be transposed; and, (2) Data entry of “9” for “not applicable” was included in the data base (instead of a system missing score). When these corrections were made, the correlation was a very acceptable .76.

Recommendations

The new Program Satisfaction scale is too long. This has been caused by the fact that some of the empowerment, personhood, and recovery items are phrased in two ways: (1) referring to the person; and, (2) referring to the program. Those items referring to the program are moved to the scales on empowerment, recovery and personhood.

Moved to Personhood: items 149, 154, 158, 159

Moved to Empowerment: items 75, 76, 145, 147, 155, 156, 157, 190, 191

Moved to Recovery: items 150, 151, 153

The scale of personhood correlate remains .76; the enlarged recovery scale correlates .94 with the earlier recovery scale; and the reduced program satisfaction scale correlates .94 with the longer scale.

The following items should be transposed on in the protocol, or are duplicates:

- 20 – transpose
- 27 – transpose
- 28 – transpose
- 29 – transpose
- 44d2 – transpose
- 44d5 – transpose
- 74 – transpose
- 92 – transpose
- 93 – transpose
- 110 – transpose
- 168 – transpose
- 186 – transpose
- 188 – transpose
- 195 – transpose

- 44d4 – duplicate
- 146 – duplicate
- 114 - duplicate

Analysis Results: Step 3

The final analysis of the protocol, based on 100 cases with 41 follow-ups, is based on the following modules (actual scales are marked with an asterisk):

Demographic Module

Items 1-19

Service Use Module

Service Use 32-42
Crisis Support 43 & 44

Employment Module

Employment 45-51
* Employment Satisfaction 52-63

Community Life Module

Community Demographic 65-69
* Community Satisfaction 70-74 & 76
(*) Social Activity 77-84
* Social Satisfaction 85-93
(*) Discrimination 134-137
(*) Crime 160-165
* Social Acceptance Scale 1-8

Quality of Life Module

* Health (SF-12) 20-31
* Quality of Life 101-108 & 111

Well-Being Module

* Personhood 138-143, 149, 154, 158
* Empowerment 75, 120, 130-133, 144-145, 147, 155-157, 190-191
* Recovery 119, 121-129, 150-151, 153

Program Satisfaction Module

* Program Quality of Life 112-118
* Program Satisfaction 94, 96, 98-100, 144, 148, 152, 166-189, 192-198
* Felt Coercion 1-10

Those scales with poor results are shown by ().

Means and standard derivations for those identified as scales are shown below:

<u>Scale</u>	N=	<u>M</u>	<u>SD</u>
Employment Satisfaction	55	33.8	6.94
Community Satisfaction	96	15.96	4.86
Social Satisfaction	98	29.3	6.23
Social Acceptance	97	32.14	9.0
Health (SF-12)	99	31.65	7.45
Quality of Life	99	27.21	6.01
Personhood	100	30.16	5.23
Empowerment	99	52.27	9.13
Recovery	96	43.65	7.11
Program Quality of Life	99	19.38	4.34
Program Satisfaction	88	126.91	21.64
Coercion	97	40.82	5.39

Cronbach's alpha and test-retest reliability are shown below:

Scale	Kappa Test-Retest	
Employment Satisfaction	.71	.47
Community Satisfaction	.72	.73
Social Satisfaction	.76	.54
Health (SF-12)	.85	.88
Quality of Life	.74	.63
Personhood	.83	.73
Recovery	.86	.61
Program Quality of Life	.88	.72
Program Satisfaction	.95	.78
Empowerment	.89	.63
Coercion	.83	.85
Social Acceptance	.93	.66
Social Activity	.55	.58
Crime	.54	.94
Discrimination	.80	.57
Crisis Support	---	---

The test-retest figures are based on a first wave of 100 and a second wave of 41.

Relationship Within Modules

Appendix C gives the intercorrelations of all the scales (all Appendices for this report can be obtained by contacting the UIC National Research and Training Center on Psychiatric Disability). It will be seen that Personhood, Empowerment, and Recovery are all highly related.

Social Satisfaction, Community Satisfaction, and Quality of Life are highly correlated.

Program Quality of Life and Program Satisfaction are highly correlated.

Coercion is moderately correlated with Program Quality of Life and Program Satisfaction.

In actuality, the modules are just convenient groupings in terms of face validity. You can rearrange scales within modules as you like.

Appendix D shows the appropriate Alpha statistics (all Appendices for this report can be obtained by contacting the UIC National Research and Training Center on Psychiatric Disability).

Recommendations

1. Simply numbering of the items in the protocol by eliminating subdivisions.
2. Do not count stems as separate items.
3. Use Social Activity as a Demographic. It has low kappa and low test-retest.
4. Use Crime as a Demographic. It has low kappa because it refers to both aggression and victimization.
5. Use Crisis Support as a Demographic. It has a very low N in use because it has a conditional structure.
6. Discrimination is a fair scale of "knowledge", but I would use it as a Demographic.
7. The rest of the scales are fine, as shown.
8. The new Protocol should have reversals "built-in".
9. Do not use "9" in databases.
10. Arrange items first by Demographic sets, then by scales within modules.

Final Analysis Summary**Peer Outcomes Protocol (POP) PSYCHOMETRICS**

	Mean	SD	Kappa	Test-Retest	N
Employment Satisfaction	33.8	6.94	.71	.47	55
Community Satisfaction	15.96	4.86	.72	.73	96
Social Satisfaction	29.3	6.23	.76	.54	98
Social Acceptance	32.14	9.0	.93	.66	97
Health	31.65	7.45	.85	.88	99
Quality of Life	27.21	6.01	.74	.63	99
Personhood	30.16	5.23	.83	.73	100
Empowerment	52.27	9.13	.89	.63	99
Recovery	43.65	7.11	.86	.61	96
Program Quality of Life	19.38	4.34	.88	.72	99
Program Satisfaction	126.91	21.64	.95	.78	88
Felt Coercion	40.82	5.39	.83	.85	97

SCALE INTERCORRELATIONS (Within Modules)

Community Satisfaction & Social Satisfaction	.51
Community Satisfaction & Social Acceptance	.39
Social Satisfaction & Social Acceptance	.36
Health & Quality of Life	.66
Personhood & Empowerment	.85
Personhood & Recovery	.88
Empowerment & Recovery	.79
Program Quality of Life & Program Satisfaction	.83
Program Quality of Life & Felt Coercion	.38
Program Satisfaction & Felt Coercion	.59

CORRELATIONS WITH CRITERION SCALES

Criterion Social Acceptance Scale with <u>Recovery</u>	.55
Criterion (Rosenburg) Self-Esteem Scale with <u>Personhood</u>	.76
Criterion Recovery Scale with <u>Recovery</u>	.63

Criterion Empowerment Scale with <u>Empowerment</u>	.46
Criterion (QS-8) Satisfaction Scale with <u>Program Satisfaction</u>	.55

Basic Demographics (see Analysis Results: Step 1) provide a demographic and diagnostic description of the sample. It can be seen that the sample can be characterized as having "severe and persistent" mental illness.

The modules, of course, do not each measure a single construct. Rather, they are grouped to allow the user to select only those areas that are of particular interest.

The correlations with the criterion scales seem reasonable, establishing concurrent validity for the Program Satisfaction, Personhood, Empowerment, and Recovery Scales within the POP. They reflect the fact that some of the module units are quite complex conceptually. In other words, these new scales overlap with, but are not identical to the criterion scales.

Collections of items that are important, but which do not form scales, are identified as "items." The item sets must be analyzed item by item (such as frequencies, for instance). Certain groups of items provide important information, but do not form scales. The crime and violence items, for example, comprise both items for victims and for aggressors. Similarly, employment items do not form a scale. Service Use and Crisis Support are other examples of descriptive items that do not form scales.

For all the new scales, internal consistency (kappa) are good. Some of the test-retest correlations may seem low. This may be because the two samples (test and retest) are different because of data loss; or it may be that people tested had varying emotional levels between test sessions.

The strength of the protocol, of course, is that it reflects the ideas, wording and constructs of mental health consumers. As such, it should prove useful in evaluation of peer support projects.

Finally, it should be pointed out that this protocol is at a beginning stage rather than a final stage of development. Data now needs to be collected at a number of community-based peer support programs using the POP, with 6-month follow-up to determine its sensitivity. Such multi-site data could then be compared (Sans ID) for internal consistency and outcome significance.