

**Conference On State Mental Health Agency  
Services Research, Program Evaluation and  
Policy Research to Inform the System  
Transformation Process  
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# **Psychometrics of a Recovery Scale**

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# Recovery: Guiding Vision of Mental Health Services

- President's New Freedom Commission on Mental Health (2003)
- Surgeon General's Report (2000)
- Consumer Advocates (long history)

# What is Recovery?

- Traditional, Medical Model
  - “Cure,” remission of symptoms
- Disability Movement/Social Recovery
  - Like other chronic conditions
  - Emphasis on functioning
- Current - Consumer Accounts/Personhood
  - Individually defined
  - Themes of Hope, Personal responsibility, Meaningful lives, Community integration
  - Universal process

# What is Illness (Wellness) Management and Recovery?

- A structured program that helps people
  - seek meaningful goals for themselves
  - acquire information and skills to develop more control over their psychiatric illness
  - make progress towards their own personal recovery

# Specific Goals

- Help people set and make progress towards personal recovery goals
- Teach people about psychiatric illness and its treatment
- Teach people how to use medication effectively
- Help people develop relapse prevention plans
- Teach people strategies for coping with and reducing persistent symptoms and other problems

# Components of IMR Program

- Structured curriculum of 10 modules
- Individual or small group format
- 4 to 8 months of weekly sessions with trained practitioner
- People set personal goals and pursue them
- Practitioners use motivational, educational, and cognitive-behavioral techniques

# Components of IMR Program, cont'd

- People practice strategies and skills in sessions
- People have home assignments to practice strategies and skills in the real world
- Significant others are invited to participate in sessions and homework
- **EVERYTHING IS TAILORED TO THE INDIVIDUAL**

# Topics of Modules

1. Recovery Strategies
2. Practical Facts about Mental Illness
3. The Stress-Vulnerability Model
4. Building Social Support
5. Using Medication Effectively

# Topics of Modules

6. Reducing Relapses
7. Coping with Stress
8. Coping with Problems and Symptoms
9. Getting Your Needs Met in the Mental Health System
10. Substance Abuse (recently developed)

# IMR Scale Development

- Needed a way to assess the potential impact of the IMR program
- Ideal to have consumer and practitioner report
- Mueser and Gingerich lead a group of people (including consumers) to develop items to reflect modules
- Clarity in presentation, anchored scale points

1. <u>Progress towards personal goals</u> : In the past 3 months, I have come up with...				
1	2	3	4	5
No personal goals	A personal goal, but have <u>not done anything</u> to finish my goal	A personal goal and made it a <u>little way</u> toward finishing it	A personal goal and have gotten <u>pretty far in</u> finishing my goal	A personal goal and have <u>finished it</u>
2. <u>Knowledge</u> : How much do you feel like you know about symptoms, treatment, coping strategies (coping methods), and medication?				
1	2	3	4	5
Not very much	A little	Some	Quite a bit	A great deal
3. <u>Involvement of family and friends in my mental health treatment</u> : How much are people like family members, friends, boyfriend/girlfriend, and other people who are important to you (outside your mental health agency) involved in your mental health treatment				
1	2	3	4	5
Not at all	Only when there is a serious problem	Sometimes, like when things are starting to go badly	Much of the time	A lot of the time <u>and</u> they really help me with my mental health

# Methods of Psychometric Study

- 20 clinicians at Thresholds in Chicago completed surveys on 3 consumers whom they planned to see in the next day
- The clinicians asked the consumers to fill out surveys as well (total possible  $N=60$ )
- Same consumers and clinicians completed the surveys 2 weeks later

# Results of Psychometric Study

Demographics for Thresholds Psychometrics Study	
Demographic	Frequency (%); Mean (SD), N= 59
AGE	43.5 (10.0)
GENDER	
Males	39 (66.1)
Females	20 (33.9)
RACE	
African American	30 (50.8)
American Indian	1 (1.7)
Caucasian/White	24 (40.7)
Hispanic/Latino	4 (6.8)
MARITAL STATUS	
Single, never married	49 (83.1)
Divorced, widowed, separated	10 (16.9)
EDUCATION	
Less than High School	6 (10.2)
High School/ GED	25 (42.4)
Some College	18 (30.5)
Associates Degree	2 (3.4)
Bachelor's Degree	7 (11.9)
Graduate Degree	1 (1.7)

# Psychometric - Reliability

<b>Internal Consistency</b>		
<b>Instrument</b>	<b>Alpha (time 1)</b>	<b>Alpha (time 2)</b>
Illness Management and Recovery Scale: Consumer Version	0.68	0.72
Illness Management and Recovery Scale: Clinician Version	0.80	0.71

Alphas are standardized values.

# Psychometric - Stability

<b>Test-Retest Reliability</b>	
<b>Instrument</b>	<b>Test-retest reliability</b>
<i>Instruments Rated by Consumers</i>	
IMR Scale: Consumer Version	.81 **
Colorado Symptom Index (CSI)	.89**
Recovery Assessment Scale (RAS)	.70**
<i>Instruments Rated by Clinicians</i>	
IMR Scale: Clinician Version	.81**
Substance Abuse Treatment Scale	
O1	.41**
O2	.79**
O3	.79**
Multnomah Community Ability Scale (MCAS)	.77**
** . Correlation significant at 0.01 level (2-tailed).	

# Validity of IMR Scales

## Correlates of Consumer IMR Scale at Baseline

	Consumer IMR Scale
<b>Consumer-Rated Scales</b>	
Colorado Symptom Index	.41**
Recovery Assessment Scale	.59***
<b>Clinician-Rated Scales</b>	
Clinician IMR Scale	.23
Multnomah Community Ability Scale	.12
Substance Abuse Treatment Scale	
Overall Substance Abuse	-.07
Alcohol Use Scale	.14
Drug Use Scale	.04

\*. Correlations significant at the .05 level (2-tailed).

\*\* . Correlations significant at the .01 level (2-tailed).

\*\*\*. Correlations significant at the .001 level (2-tailed).

## Correlates of Consumer IMR Scale at 2-week Follow-Up

	<b>Consumer IMR Scale</b>
<b>Consumer-Rated Scales</b>	
Colorado Symptom Index	.47**
Recovery Assessment Scale	.65***
<b>Clinician-Rated Scales</b>	
Clinician IMR Scale	.33*
Multnomah Community Ability Scale	.31*
Substance Abuse Treatment Scale	
Overall Substance Abuse	-.12
Alcohol Use Scale	.05
Drug Use Scale	-.07

\*. Correlations significant at the .05 level (2-tailed).

\*\* . Correlations significant at the .01 level (2-tailed).

\*\*\* . Correlations significant at the .001 level (2-tailed).

## Correlates of Clinician IMR Scale at Baseline

	Clinician IMR Scale
Consumer-Rated Scales	
Consumer IMR Scale	.23
Colorado Symptom Index	-.01
Recovery Assessment Scale	.16
Clinician-Rated Scales	
Multnomah Community Ability Scale	.67***
Substance Abuse Treatment Scale	
Overall Substance Abuse	.07
Alcohol Use Scale	-.05
Drug Use Scale	-.41**

\*. Correlations significant at the .05 level (2-tailed).

\*\* . Correlations significant at the .01 level (2-tailed).

\*\*\*. Correlations significant at the .001 level (2-tailed).

## Correlates of Clinician IMR Scale at 2-Week Follow-Up

	<b>Consumer IMR Scale</b>
<b>Consumer-Rated Scales</b>	
Consumer IMR Scale	.33*
Colorado Symptom Index	-.03
Recovery Assessment Scale	.19
<b>Clinician-Rated Scales</b>	
Multnomah Community Ability Scale	.54***
Substance Abuse Treatment Scale	
Overall Substance Abuse	-.15
Alcohol Use Scale	-.14
Drug Use Scale	-.38**

\*. Correlations significant at the .05 level (2-tailed).

\*\* . Correlations significant at the .01 level (2-tailed).

\*\*\* . Correlations significant at the .001 level (2-tailed).

# Sensitivity to Change Over Time

- **Thresholds IMR implementation Study:**
  - 31 consumers at Thresholds have completed baseline and 3-month surveys.
  - Staff surveys were returned for all 31 subjects as well.
- **SAMHSA IMR implementation studies:**
  - 4 CMHCs in Indiana
  - 57 consumers across all 4 sites have completed baseline and 6-month surveys.
  - We received both staff surveys for 63 consumers.

# Change in Time for SAMHSA Sites

SAMHSA IMR Implementation Studies: Combined across 4 sites  
Outcome Data at Baseline and 6-Month Follow-Up

	Time 1: Mean (SD)	Time 2: Mean (SD)	Tests of Significance (t- test, p-value)
<b>IMR Scale: Clinician, N=63</b>	3.24 (.60)	3.75 (.51)	-6.67***
<b>IMR Scale: Consumer, N=57</b>	3.44 (.53)	3.72 (.47)	-4.92 ***
<b>Satisfaction with Services, N=54</b>	2.69 (.40)	2.76 (.32)	-1.47
<b>Goals/hope, N=57</b>	2.96 (.60)	3.11 (.54)	-2.15 *

\*. Significant at the .05 level (2-tailed).

\*\*\*. Significant at the .001 level (2-tailed).

IMR Scales have items rated 1-5, Satisfaction with Services is rated 1-3, and Goals/hope is rated 1-4. Higher scores indicate more positive outcomes.

# Change in Time at Thresholds

Thresholds IMR Implementation Study  
Outcome Data at Baseline and 3-Month Follow-Up

	Time 1: Mean (SD)	Time 2: Mean (SD)	Tests of Significance (t- test, p-value)
<b>IMR Scale: Clinician, N=31</b>	3.64 (.46)	3.67 (.62)	-.30
<b>IMR Scale: Consumer, N=31</b>	3.60 (.60)	3.79 (.66)	-2.90**
<b>Satisfaction with Services, N=31</b>	2.68 (.31)	2.78 (.29)	-1.80
<b>Goals/hope, N=29</b>	2.99 (.80)	3.17 (.70)	-1.88

\*\* . Significant at .01 level (2-tailed).

IMR Scales have items rated 1-5, Satisfaction with Services is rated 1-3 and Goals/hope is rated 1-4. Higher scores indicate more positive outcomes.

# Thresholds, 6 months

## Thresholds IMR Implementation Study Outcome Data at Baseline and 6-Month Follow-Up

	<b>Time 1: Mean (SD)</b>	<b>Time 2: Mean (SD)</b>	<b>Tests of Significance (t- test, p-value)</b>
<b>IMR Scale: Clinician, N=10</b>	3.57 (.33)	3.72 (.33)	-2.31*
<b>IMR Scale: Consumer, N=9</b>	3.31 (.46)	3.85 (.43)	-4.48**
<b>Satisfaction with Services, N=9</b>	2.62 (.37)	2.87 (.14)	-2.09
<b>Goals/hope, N=8</b>	3.05 (.73)	3.29 (.55)	-1.22

\*. Significant at .05 level (2-tailed).

\*\* . Significant at .01 level (2-tailed).

IMR Scales have items rated 1-5, Satisfaction with Services is rated 1-3, and Goals/hope is rated 1-4. Higher scores indicate more positive outcomes.

# Conclusions

- 1) IMR Scales have adequate internal consistency (alpha)
- 2) Stability over time is good (test-retest) for IMR Scales
- 3) Some method variance is implied as in general scales rated in the same manner (clinician vs. consumer) are correlated—sign of moderately good convergent validity

# Conclusions, cont.

- Preliminary Finding:
  - Consumers generally notice change early on (within 3 months)
  - Clinicians (who typically only see consumers once/week) may take longer than 3 months to notice a significant change.
  - By 6 months, clinicians also notice a significant change in the consumer.

# Closing Thoughts

“Having strategies for coping with mental illness is extremely important. It’s hard to enjoy your life if you are constantly sick with mental illness. . .

However, believing in yourself, having hope that things will continue to get better and looking forward to your future are also vital in overcoming mental illness. Our hopes and dreams are not delusions. Our hopes and dreams are what make us human.”

- David Kime, artist, writer, floral designer, person in recovery from bipolar disorder.

# How to Contact Us

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# Questions & Answers