

**SERVICES RESEARCH ON  
CO-OCCURRING DISORDERS:  
APPLICATIONS OF THE DUAL DIAGNOSIS  
CAPABILITY IN ADDICTION TREATMENT  
(DDCAT) INDEX**

**ADDICTION HEALTH SERVICES RESEARCH  
ANNUAL MEETING**

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# CO-OCCURRING SUBSTANCE USE AND PSYCHIATRIC DISORDERS

1. Common in the population and even more so in clinical settings.
2. Associated with negative outcomes
3. Integrated treatments associated with improved outcomes.
4. No more than 1 in 10 of persons with co-occurring disorders get treatment for both.
5. Chronic illness management and recovery models are necessary.

# MEASURES OF DUAL DIAGNOSIS CAPABILITY IN ADDICTION TREATMENT SERVICES

1. **COMPASS (Minkoff & Cline)**  
Mental health, SMI & systems level
2. **IDDT (Drake & Mueser)**  
Mental health, SMI & team level
3. **ASAM-PPC-2R taxonomy (Mee Lee et al)**  
Addiction, program level, defined but not operationalized)
4. **ASAM levels: Addiction Only Services (AOS)**  
Dual Diagnosis Capable (DDC) &  
Dual Diagnosis Enhanced (DDE)

**STAGE I:  
DETERMINING DUAL DIAGNOSIS  
CAPABILITY BY ADDICTION TREATMENT  
PROVIDER SURVEY**

<b>Addiction Only Services (AOS)</b>	<b>97 (23.0%)</b>
<b>Dual Diagnosis Capable (DDC)</b>	<b>275 (65.3%)</b>
<b>Dual Diagnosis Enhanced (DDE)</b>	<b>49 (11.6%)</b>

**(n=453)(McGovern et al, 2006b)**

**STAGE I:  
ASAM DUAL-DIAGNOSIS TAXONOMY  
SURVEY IS USEFUL BUT  
MAY HAVE ACCURACY PROBLEMS**

- 92.9% of sample responded to item (421/453)
- No differences in categories by professional role:  
Agency Directors vs. Clinical Supervisors vs. Clinicians
- Modest agreement among staff within programs: 47.3%
- Survey method is rapid and economical:  
Provides initial data (screening)
- Survey method may have bias and error (ambiguity)

# APPLYING THE FIDELITY SCALE METHODOLOGY FOR A MORE OBJECTIVE ASSESSMENT OF DUAL DIAGNOSIS CAPABILITY

- Site visit (yields data beyond self-report)
- Multiple sources:
  - 1) Documents and materials
  - 2) Ethnographic observation
  - 3) Interviews with staff and patients
- Unit of analysis: Program
- “Triangulation” of data

# DDCAT (2.4): 7 DIMENSIONS & CONTENT OF 35 ITEMS

	Dimension	Content of items
I	Program Structure	Program mission, structure and financing, format for delivery of mental health services.
II	Program Milieu	Physical, social and cultural environment for persons with psychiatric problems.
III	Clinical Process: Assessment	Processes for access and entry into services, screening, assessment & diagnosis.
IV	Clinical Process: Treatment	Processes for treatment including pharmacological and psychosocial evidence-based formats.
V	Continuity of Care	Discharge and continuity for both substance use and psychiatric services, peer recovery supports.
VI	Staffing	Presence, role and integration of staff with mental health expertise, supervision process
VII	Training	Proportion of staff trained and program's training strategy for co-occurring disorder issues.

# DDCAT INDEX RATINGS

- 1 - Addiction only (AOS)
- 2 -
- 3 - Dual Diagnosis Capable (DDC)
- 4 -
- 5 - Dual Diagnosis Enhanced (DDE)

# DISTRIBUTION OF PROGRAM TYPE ACROSS FOUR STUDIES: *All stages to date*

	Stage I	Stage II Phase I	Stage II Phase II	Stage III
n	421	28	16	53
AOS	23.0%	68.0%	75.0%	58.5%
DDC	65.4%	32.0%	25.0%	41.5%
DDE	11.6%	0	0	0

# DDCAT PSYCHOMETRIC PROPERTIES

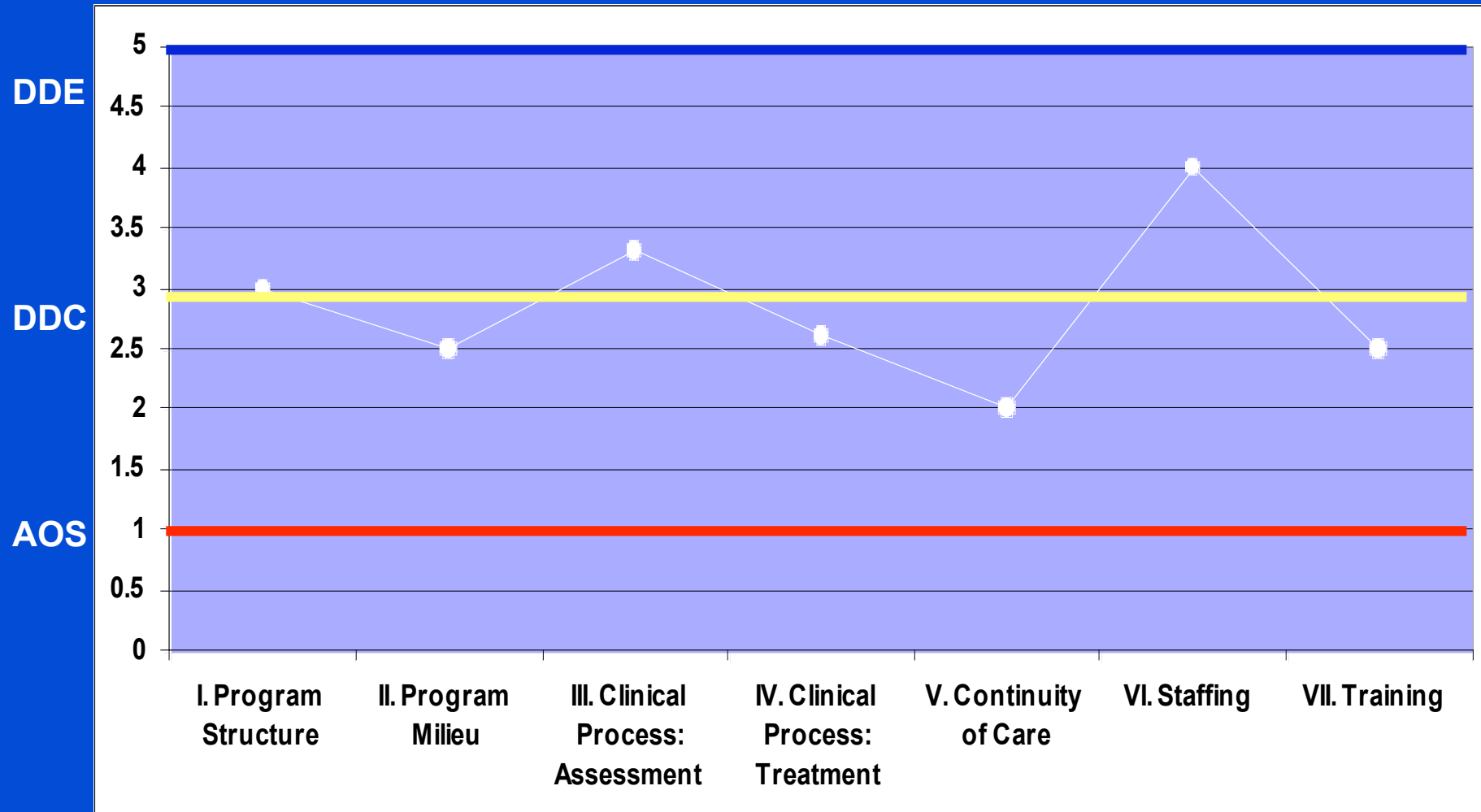
- Reliability: Median alpha = .81 (Range .73 to .93);  
Inter-rater reliability: % agreement = 76%; Kappa = .67 (median)
- Validity: Correlation with Integrated Dual Disorder Treatment Fidelity Scale: .69 (.38 to .82)
- Sensitivity to change: 3 groups of programs assessed at baseline and 9-months

(Gotham et al, 2004)

# DDCAT IMPLEMENTATION

1. Not the usual struggles with adoption
2. Implemented by states (22 in various stages), agencies, providers
3. Baseline and repeated measure: CQI, process improvement
4. Mental health version: Gotham & Brown
5. Scoring manual
6. Toolkit

# DDCAT PROFILE: PRACTICAL GUIDANCE FOR PROVIDERS



# DDCAT RESEARCH: CURRENTLY IN DATA COLLECTION PHASE

1. Combined DDCAT data from 6 (9) states
2. Refine measure
3. Studies of factors associated with program change in dual diagnosis capability
4. Relating program level capability to patient level outcomes

# LINKING DDCAT PROGRAM TYPE WITH PATIENT LEVEL OUTCOMES

1. Access
2. Engagement
3. Retention
4. Outcome

# ACCESS: LINKING DDCAT PROGRAM TYPE WITH PATIENT LEVEL OUTCOMES

1. Common screening measures used across 30 programs in at intake/admission.
2. DDCAT scores for these 30 programs are available.
3. Will DDE vs. DDC vs. AOS programs accept increasingly more severe persons for treatment?
4. Will there be any variation in patient substance severity at intake/admission?

# DDCAT PROGRAM CATEGORY BY MHSF AND SSI-AOD (n=15)

Program Type	MHSF-III		SSI-AOD	
	% Positive	M(SD) <sup>***</sup>	% Positive	M(SD) <sup>***</sup>
AOS (n=550)	69.1	3.39(3.69)	58.0	5.58(4.24)
DDC (n=36)	94.4	7.06(3.86)	94.4	10.11(3.44)

\*\*\*p<.001

# DDCAT PROGRAM CATEGORY BY MINI AND CAGE-AID (n=15)

Program Type	MINI		CAGE-AID	
	% Positive	M(SD)***	% Positive	M(SD)
AOS (n=452)	46.9	5.39(5.13)	84.8	3.83(2.54)
DDC (n=743)	52.5	6.57(5.87)	85.8	3.73(2.47)

\*\*\*p<.001

## NEXT STEPS

- Effort to utilize DDCAT index as self-administered measure: Economic, practical, less intensive resource issue: Projects underway in: MA, NJ, Australia, IN, national COSIG (Trade-offs found & more possible)
- Patient level research: Engagement, retention, outcome
- Implementation science research

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