Screening for Co-occurring Mental & Substance Use Disorders in Minority Offenders

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Alexandra Duncan, MPH; Stanley Sacks, PhD; Gerald Melnick, PhD; Carrie Coen, MA

National Development & Research Institutes, Inc., Center for the Integration of Research & Practice

Study Aims

Co-Occurring Disorders Screening Instrument (CODSI) Minority Supplement Aim:
To test the psychometric properties and validity of the CODSI screening battery among substance using African American and Latino offenders; to compare the performance of the CODSI screening battery among substance using African American, Latino, and white offenders; to compare the rate of COD among African American and Latino offenders to a similar group of white offenders.

Co-Occurring Disorders Screening Instrument (CODSI) Study Aim:
To provide a reliable and valid brief screening instrument to identify offenders with COD for use in CJ-DATS and by the criminal justice field.
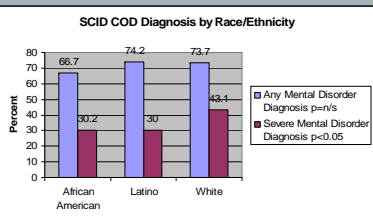
Methods & Sample

Offender Eligibility Criteria

- African American or Latino
- 18 years of age or older
- New to Therapeutic Communities or Prison-based Substance Abuse Outpatient Programs

Recruitment

Site	Supplement Sample		Parent Sample		
	Afr Am	Latino	Afr Am	Latino	White
NDRI Rocky Mountain	46	45	19	30	64
Texas Christian University			15	12	28
Lifespan Brown University			16	15	37
UCLA			18	8	

Selected Background Characteristics

	Afr Am	Latino	White	P-value
Mean age	35.73	32.74	36.02	n/s
% male	56.3%	60.8%	58.4%	n/s
% legally married	25.0%	23.3%	22.6%	n/s
Median lifetime arrests	13.0	9.0	10.0	n/s
% received prior treatment for substance abuse	67.7%	70.8%	57.7%	n/s

SCID COD Diagnosis by Race/Ethnicity

	African American	Latino	White
Any Mental Disorder Diagnosis p=n/s	66.7	74.2	73.7
Severe Mental Disorder Diagnosis p<0.05	30.2	30	43.1

Measures

Screening

- Global Appraisal of Individual Needs Short Screener (GSS)
- MINI Modified Screen (MMS)
- The Mental Health Screening Form III (MHSF)
- Additional Items from Anti-Social Personal Disorder (ASPD) and Borderline Personality Disorder (BPD) Screeners

Brief Qualitative Interview

Structured Clinical Interview for DSM-IV (SCID)

Measures of Precision Defined

Sensitivity: the probability that the screening test is positive given that the person has the disease. This is also known as the true positive rate.

Specificity: the probability that the screening test is negative given that the person does not have the disease. This is also known as true negative rate.

Overall Accuracy: is the combination of sensitivity and specificity – the probability that the screening test is positive given that the person has the disease combined with the probability that the screening test is negative given that the person does not have the disease.

CODSI Instruments

CODSI 6-item Mental Disorder Screen (CODSI-MD)

- o Have you ever felt you needed help with your emotional problems, or have other people told you that you should get help for your emotional problems?;
- o Have you ever talked to a psychiatrist, psychologist, therapist, social worker, or counselor about an emotional problem?;
- o Have you ever been told by teachers, guidance counselors, or others that you have a special learning problem? (reverse coded);
- o Have you ever been advised to take medication for anxiety, depression, hearing voices, or for any other emotional problem? (reverse coded);
- o Do you feel anxious or uneasy in places or situations where you might have the panic like symptoms we just spoke about? Or do you feel anxious or uneasy in situations where help might not be available or escape might be difficult?;
- o During the past 12 months have you been a bully or threatened other people two or more times?

CODSI 3-item Severe Mental Disorder Screen (CODSI-SMD)

- o Have you felt sad, low, or depressed most of the time for the past two years?
- o Did you ever attempt to kill yourself?
- o Have you ever had a period of time when you were so full of energy and your ideas came very rapidly, when you talked nearly non-stop, when you moved quickly from over activity to another, when you needed little sleep, and believed you could do almost anything?

Results

Results by Race/Ethnicity – Comparison of Sensitivity

Any Mental Disorder

Instrument	Afr Am	Latino	White	White vs. Afr Am P-value	White Vs. Latino P-value	Afr Am vs. Latino P-value
CODSI-MD	71.6%	80.7%	81.6%	n/s	n/s	n/s
MHSF	89.5%	82.9%	87.8%	n/s	n/s	n/s
MMS	86.6%	75.0%	74.5%	n/s	p<0.1	p<0.1
GSS	92.5%	88.6%	76.5%	p<0.01	p>0.01	p<0.05

Severe Mental Disorder

	Afr Am	Latino	White	P-value	P-value	P-value
CODSI-SMD	44.0%	48.6%	56.0%	n/s	n/s	n/s
MHSF	40.0%	20.0%	42.0%	n/s	p<0.1	n/s
MMS	52.0%	42.9%	48.0%	n/s	n/s	n/s
GSS-IDS	24.0%	22.9%	32.0%	n/s	n/s	n/s

Results by Race/Ethnicity – Comparison of Specificity

Any Mental Disorder

Instrument	Afr Am	Latino	White	White vs. Afr Am P-value	White Vs. Latino P-value	Afr Am vs. Latino P-value
CODSI-MD	65.5%	62.5%	61.5%	n/s	n/s	n/s
MHSF	44.8%	53.1%	38.5%	n/s	n/s	n/s
MMS	48.3%	50.0%	58.9%	n/s	n/s	n/s
GSS	44.8%	37.5%	53.8%	n/s	n/s	n/s

Severe Mental Disorder

	Afr Am	Latino	White	P-value	P-value	P-value
CODSI-SMD	85.9%	82.4%	89.7%	n/s	n/s	n/s
MHSF	87.3%	82.4%	89.7%	n/s	n/s	n/s
MMS	77.5%	74.1%	82.8%	n/s	n/s	n/s
GSS-IDS	94.4%	95.3%	82.8%	p<0.01	p<0.05	p<0.01

Results by Race/Ethnicity – Comparison of Overall Accuracy

Any Mental Disorder

Instrument	Afr Am	Latino	White	White vs. Afr Am P-value	White Vs. Latino P-value	Afr Am vs. Latino P-value
CODSI-MD	70.8%	76.7%	75.9%	n/s	n/s	n/s
MHSF	76.0%	75.0%	73.7%	n/s	n/s	n/s
MMS	76.0%	69.2%	70.1%	p<0.1	n/s	p<0.1
GSS	75.0%	75.0%	70.1%	p<0.05	p<0.05	n/s

Severe Mental Disorder

	Afr Am	Latino	White	P-value	P-value	P-value
CODSI-SMD	76.0%	72.5%	77.4%	n/s	n/s	n/s
MHSF	75.0%	70.0%	73.7%	n/s	p<0.1	n/s
MMS	70.8%	64.2%	70.1%	n/s	n/s	n/s
GSS-IDS	76.0%	74.2%	64.2%	p<0.01	p<0.01	p<0.05

Findings

- ❖ The short length of the CODSI Instruments is desirable for use in the criminal justice system.
- ❖ The CODSI-MD and CODSI-SMD exhibit no differences in sensitivity, specificity, or overall accuracy by race/ethnicity.
- ❖ The CODSI-MD performs best in overall accuracy for Latinos and whites. CODSI-SMD performs best in overall accuracy for whites and is tied with the GSS-IDS for best overall accuracy among African Americans.

Limitations

The population being studied can affect results:

- ❖ General performance of each instrument will change based on population.

Prevalence of mental disorder of the population will affect results:

- ❖ Sensitivity is more important for higher prevalence populations
- ❖ Specificity is more important for lower prevalence populations