



# A Tale of Two Measures: Initial Validation Studies

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## Measure 1: Subtle Trauma Screen (STS)

- 59-99% of women with co-occurring disorders and who are homeless have trauma histories (Markoff, Reed, Fallot, Elliott, & Bjelajac, 2005)
- Trauma can be difficult to assess due to stigma and shame.
- Women are sensitive to language used when exploring or assessing trauma (McHugo et al., 2005)
- A measure to screen for trauma contained within a larger assessment tool may be more palatable for clients
- The purpose of this study was to validate a subset of items from the "What I Want from Treatment" measure (Miller & Brown, 1994) as a possible subtle screening tool for trauma.
- An initial study of a created index of these items found good internal consistency ( $\alpha=.88$ ) (Hohman & Corbett, 2008)

## Method / Sample / Measures

- Data were gathered from clients at intake/assessment by self-report
- Sample included all women who were admitted to two SAMHSA-funded residential substance abuse treatment programs at one agency for women who are homeless with co-occurring disorders ( $n=191$ ) and for women who are pregnant and/or parenting ( $n=142$ ) between 10/1/2004 and 12/31/2007 ( $N=333$ ).
- Measures: demographic and drug use history data that are gathered per state requirements (CalOMS)
- "What I Want From Treatment", a 69-item Likert scale is given to clients at admission to assess treatment needs/expectancies. Scores range from 0=No, 1=Maybe, 2=Yes, 3=YES!
- 16 items that were conceptually related to trauma (similar to items on the Trauma Symptom Checklist 40, Briere & Runtz, 1989) were used for a factor analysis using a varimax rotated component matrix.

## Results

- The sample was 58% Caucasian, 12% African American, and 30% cited "other race." One-third were Latina ethnicity. Their average age was 34.
- Two-thirds (65%) were on Probation, Parole, or some sort of diversion program. 53% listed methamphetamine as their primary drug and the sample had had 2.5 prior drug treatment experiences. They had used drugs for an average of 16 years.
- 16 items were utilized in the factor analysis; 14 items were left in the final equation with 3 factors
- Homeless women scored significantly higher on 2 subfactors and the overall scale

Table 1: Mean Scores on Trauma Subfactors and STS by Group

	Homeless Women		Parenting Women	
	M	SD	M	SD
Trauma Symptoms*	2.23	.75	2.03	.77
Trauma Exposure	.85	.89	.67	.81
Anxiety & Confusion***	1.17	.76	.74	.72
STS Total***	1.42	.66	1.15	.61

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Table 2: Rotated Component Matrix of Subtle Trauma Screen ( $\alpha=.87$ ) (N=291)

Factor	1	2	3
<b>Factor 1: Trauma Based Symptoms (<math>\alpha=.82</math>)</b>			
21. I want help to decrease my stress and tension.	.650		
26. I want help with angry feeling and how I express them.	.645		
27. I want to have healthier relationships.	.692		
30. I want to learn how to relax better.	.782		
32. I want help with feelings of loneliness.	.642		
36. I want to work on having better self-esteem.	.717		
<b>Factor 2: Trauma Exposure (<math>\alpha=.77</math>)</b>			
28. I would like to discuss sexual problems.		.560	
33. I want to discuss having been physically abused.		.861	
34. I want to prevent violence at home.		.662	
35. I want to discuss having been sexually abused		.785	
<b>Factor 3: Anxiety and Confusion (<math>\alpha=.69</math>)</b>			
37. I want help with sleep problems.			.601
42. I want help overcoming shyness.			.640
45. I want help with personal fears or anxieties.			.641
47. I feel very confused and want help with this.			.726

## Measure 2: Motivational Interviewing Measure of Staff Interaction (MIMSI)

- Motivational Interviewing (MI) is a communication/counseling style that is directive but client-centered and seeks in a respectful, empathic manner to help clients determine their own internal motivators for change (Miller & Rollnick, 2002).
- Because of demonstrated positive outcomes, many residential treatment programs now train their staff in MI and want to see that the MI "spirit" (collaboration, evocation, and autonomy support) in interactions with clients is used by all staff members, not just their primary counselors.
- Programs are interested in evaluating outcomes of MI training, to see not only if their staff gained skills from participating in training but are actually using them. Self-report measures of MI trainings and skill use have been found to not be valid as counselors tend to overestimate their own proficiency (Miller et al., 2004).
- Typically, to determine skill use, counselors audiotape sessions with clients for coding by an expert in MI (Miller & Mount, 2001); this is both labor intensive and expensive, typically beyond the capabilities of most non-profit treatment programs. Client report may be a less expensive alternative.
- The purpose of this study is to validate a measure of MI spirit: The Motivational Interviewing Measure of Staff Interaction.

## Method / Sample / Measures

- 40 items considered to reflect the "spirit" of MI were drafted by 2 experienced MI trainers, using a Likert scale of 1 (Never) to 5 (Always). These items were pilot-tested by clients who provided feedback regarding clarity, etc. Some items will need to be reversed scored in analysis.
- The Working Alliance Inventory (Horvath, 1994), a 7 point Likert scale of therapeutic alliance, was used for concurrent validity. Items were reworded from "my counselor" to "staff". Factors of the scale measure client-counselor alliance on tasks and goals as well as their bond.
- Surveys were administered during weekly community meetings to all clients of two SAMHSA-funded residential programs: (1) For women with substance misuse problems and (2) for men and women who are homeless who may also have substance misuse problems. Surveys were given in April and May, 2008.
- 227 clients out of 281 who were present consented to fill out the survey, giving a response rate of 81%.

- Results** indicated that the sample was 40% male and had an average age of 41.
- 46% were Caucasian, 21% Latino, and 16% African American
- 71% indicated they had had drug problems; 36% listed methamphetamine as their drug of choice, 14% alcohol, 8% cocaine, and 7% heroin
- They had used drugs for 11.8 years. Half had been in drug treatment before, an average of 1.6 times; The sample had been in residential care for an average of 27 weeks
- 23% had lived with family prior to treatment/residential care with 16% being admitted from the streets. 12% came to their program from jail or prison
- The factor analysis produced 3 factors with loadings over .500
- All factors correlated significantly with the Working Alliance Inventory

Table 3: Rotated Component Matrix of MI Measure of Staff Interaction ( $\alpha=.94$ ) (N=227)

Factor	1 $\alpha=.95$	2 $\alpha=.82$	3 $\alpha=.73$
7. The staff here seems to think I know what is best for myself.			.900
8. The staff asks me to think about both sides of a situation or problem I might be having.	.710		
13. I find that staff is able to help me think through my problems.	.744		
14. The staff is interested in helping me solve my problems my own way.			.787
15. I enjoy talking with staff here.	.668		
16. Staff here helps me to recognize my own strengths	.796		
19. The staff asks me about my own goals.	.758		
23. I feel empowered by my interactions with staff.	.768		
25. The staff is curious about my thoughts and feelings.	.740		
28. Staff helps guide me to make good decisions for myself.	.804		
33. The staff here helps me look at both sides of a problem.	.780		
34. Staff here respects my right to make choices about my life.	.734		
36. I feel hurried and rushed when talking to staff.		.814	
37. The staff finds it easier to tell me what to do instead of asking for my input.		.811	
40. Staff gets angry with me when I don't agree with what they are telling me.		.729	

## Discussion

- Both groups scored very high on the Trauma Symptoms factor of the STS which may be easier to report than actual physical or sexual abuse; these higher scores could also be drug-related symptoms.
- Homeless women may have scored higher on these scales due to being older, having longer drug use history and having had more years on the streets than their pregnant and parenting counterparts.
- Concurrent validation is needed with a scale such as the Trauma Symptom Checklist-40 to determine if the scale is measuring the same construct; it should also be repeated again after a period of abstinence.
- The scale should also be measured for construct validity comparing those who have reported trauma with those who do not have trauma histories.
- The MIMSI shows good validity in measuring the MI "spirit" and is highly correlated with the Working Alliance Inventory, indicating that both are measuring a similar construct.
- Not all items fit neatly into a priori MI spirit categories and intercorrelations also show measurement of similar constructs.
- The MIMSI may measure MI spirit but not necessarily specific skill use. Agencies interested in determining if staff or counselors are using MI will still need to tape/code/coach to determine MI adherence.
- The MIMSI may be a promising tool, however, as an alternative for those who are unable to provide individual supervision.
- Further research could determine if the MIMSI is correlated with MI skill adherence measures.
- Findings are only preliminary and need to be taken carefully. Further research is needed with both measures regarding their validity.