A Pilot Study of Dual Diagnosis Screening Tools in Broome County:

The RAFFT and the Modified MINI

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Overview

Screening for dual diagnoses of mental illness and substance abuse disorders often is a daunting task. Mental health and substance abuse agencies are faced with challenges such as selecting effective screening tools, training staff to implement them, and determining the validity of such tools. In addition, the practical components of time spent on training staff, administering the measures, and scoring the measures also need to be considered. Rather than having each agency continue with this struggle independently, or worse, completely relinquish any attempt to screen for both disorders, mental health and substance abuse agencies in Broome County have collaborated to address this problem in the Screening and Assessment Workgroup of the Dual Recovery Project.

Part of the outcome for the Dual Recovery Project is to pilot several screening tools, evaluate them, and then select which tools will be used as common screening tools across agencies in Broome County. The Screening and Assessment Workgroup invested a significant amount of time into researching an assortment of screening tools. The criteria needed for the screening instruments were quite challenging. Specifically, the workgroup decided that the screening tools had to be easy to learn, score, and interpret, and they had to be available to the public for no charge. In addition, the workgroup wanted to ensure that the substance abuse screening tool addressed both alcohol and drugs. These immediately eliminated many otherwise highly desirable screening instruments. However, good options remained.

After reviewing multiple screening measures and their properties, members of the workgroup selected the RAFFT[1] for screening substance disorders and the Mini International Neuropsychiatric Interview-Modified (Modified MINI)[2] for screening mental health disorders. Both instruments had good psychometric properties and had been successfully used as screening tools in clinical populations. (The reader is referred to Appendix A and B for these two instruments.)

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[1] Bastiens, L., Riccardi, K., & Sakhrani, D. (2002). The RAFFT as a screening tool for adult substance use disorders. *American Journal of Drug and Alcohol Abuse*, 681-690.

[2] Sheehan, D.V., Lecrubier, Y., Harnett Sheehan, K., Amorim, P., Janavs, J., Weiller, E., Hargueta, T., Baker, R., & Dunbar, G.C. (1998). The Mini-International Neuropsychiatric Interview (MINI): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. Journal of Clinical Psychology, 59, 22-33.

Members of the Screening and Assessment Workgroup also decided to pilot both screening tools in mental health and substance abuse agencies. As the mental health agencies believed that it would be beneficial to administer a mental health screening tool in addition to the substance disorders, it was decided to administer the modified MINI and the RAFFT across the both types of agencies.

Once these screening tools were selected, the workgroup decided that a pilot study of these instruments at select mental health and substance abuse agencies in the county would be quite beneficial in assessing the utility and effectiveness of the tools. Given that OASAS has previous experience conducting pilot research with the modified MINI, the workgroup sought input and technical assistance from OASAS about their experience and any recommendations they had. We also adapted the implementation plan from OASAS to develop our training manuals. This helped in the development of an effective pilot study in Broome County.

Initially, four agencies agreed to participate in the study. The two participating mental health agencies were the Broome County Mental Health Clinic and the Community Treatment and Rehabilitation Center (CTRC). The two participating substance abuse agencies were New Horizons and the Addiction Center of Broome County (ACBC). Due to time constraints, the Community Treatment and Rehabilitation Center (CTRC) was unable to participate in the pilot study. However, the staff at CTRC have been trained in the instruments and continue to be involved in the Screening/Assessment Workgroup and the planning for any expansion of the project.

Method

A total of ninety-one modified MINI questionnaires and eighty-eight RAFFT questionnaires were administered to individuals seeking clinical services. The Broome County Mental Health Clinic administered both the modified MINI and the RAFFT to forty-seven individuals, New Horizons administered the modified MINI to twenty-six individuals and the RAFFT to twenty-seven individuals, and the Addiction Center of Broome County administered the modified MINI to eighteen individuals and the RAFFT to fourteen individuals. Individuals who administered the questionnaires completed feedback forms for each measure. (The reader is referred to Appendix C and D to view

these feedback forms.) These feedback forms asked questions about practical issues such as the utility of the measures and the time that it took to administer and score the measures. The data from the feedback forms was entered and analyzed in order to assess the benefit and practicality of using these measures to screen for mental health and substance abuse problems. Staff who administered the screening instruments also were asked to identify any additional comments, questions, or complaints they had about the screening instruments.

Analyses

Information from the Feedback Forms was entered into the statistical program *SPSS*. Data was analyzed for basic descriptive information, such as mean and standard deviation of scores and the length of time to administer each of the screening tools. Descriptive analyses also were performed to assess the demographic information of the clients who completed the questionnaires.

Results

Descriptive Information:

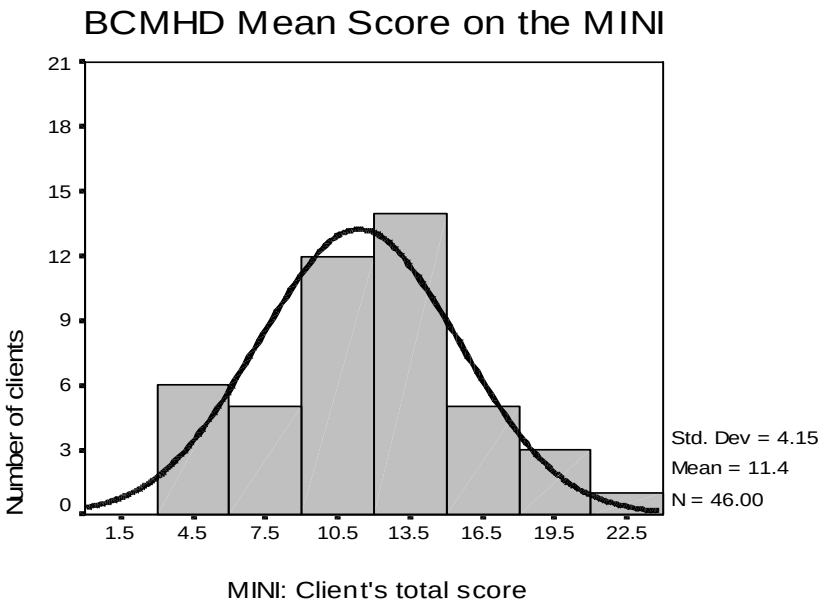
Table 1 presents the descriptive information for the total responses and for each agency. It is important to note that each agency had multiple test evaluators. Eight staff at Broome County Mental Health Department, seven staff at New Horizons, and four staff at the Addiction Center of Broome County administered the screening instruments. Further analyses indicated that of the clients assessed with the modified MINI, 63.7% were male and were 36.3% were female. Of the clients assessed with the RAFFT, 64.8% were male and 34.1% were female. Approximately 48.4% of individuals screened for a mental health disorder had a pre-existing mental health diagnosis, and 46.6% of individuals screened for a substance abuse disorder had a pre-existing substance abuse diagnosis.

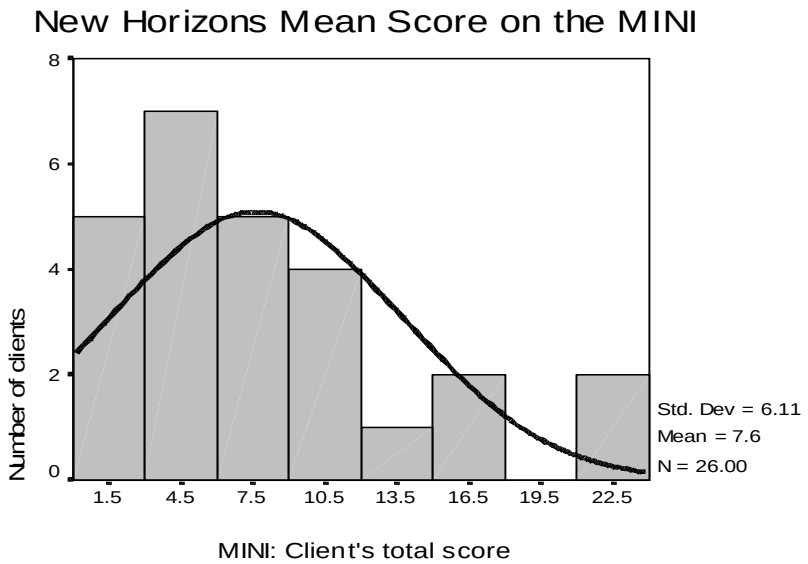
When reviewing Table 1 and Graphs 1 through 3, it is important to note the standard deviation in addition to the mean. Standard deviation is a measure of dispersion around the mean. It provides a more detailed way of interpreting the data and the variability of it. Graphs 1, 2, & 3 provide a visual depiction of this information for the total scores of the modified MINI. The data exhibits the variability of scores at each agency.

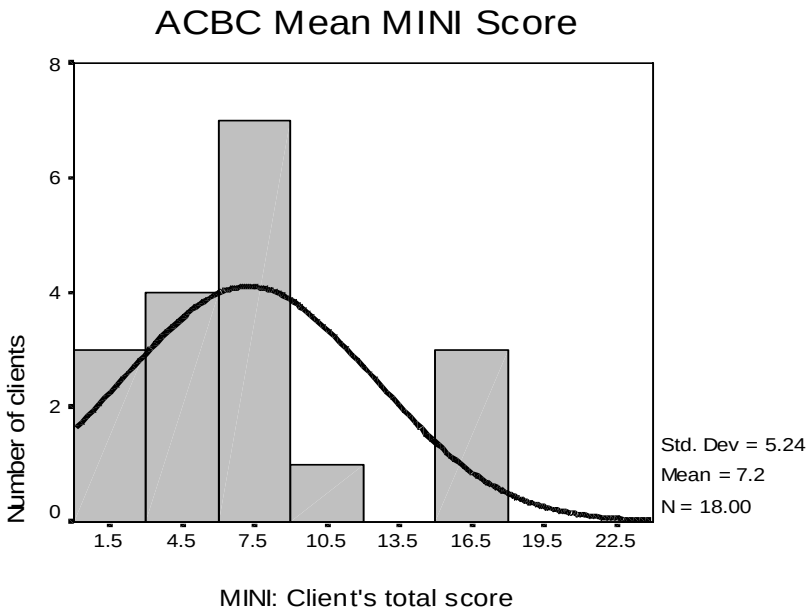
Table 1: Descriptive information

	Modified MINI		RAFFT	
Variable	**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
Total: **(MINI: N = 91)** **(RAFFT: N = 88)**				
Time to administer (min.)	11.33	4.65	2.34	2.28
Time to score (min.)	3.06	1.83	1.25	.73
Client's age	36.65	9.73	34.73	10.50
Client's score	9.46	5.32	2.53	1.55
Utility score	5.01	2.59	3.48	2.02
BCMHD: **(MINI: n = 47)** **(RAFFT: n = 47)**				
Time to administer	9.46	5.27	3.40	2.65
Time to score	2.98	1.73	1.43	.93
Client's age	34.89	10.13	34.89	10.20
Client's score	11.37	4.15	1.68	1.40
Utility score	5.30	2.19	3.96	2.20
New Horizons: **(MINI: n = 26)** **(RAFFT: n = 27)**				
Time to administer	15.00	.00	1.19	.79
Time to score	4.40	1.53	1.07	.38
Client's age	39.46	10.10	33.37	12.13
Client's score	7.62	6.11	3.70	.95
Utility score	2.77	1.92	2.78	1.91
ACBC: **(MINI: n = 18)** **(RAFFT: n = 14)**				
Time to administer	10.83	3.09	1.00	.00
Time to score	1.39	.78	1.00	.00
Client's age	37.17	7.20	36.79	8.19
Client's score	7.22	5.24	3.15	1.21
Utility score	7.50	1.65	3.21	.97

Graphs 1-3: Means and standard deviations of the MINI scores at each agency







In order to better the understand the time invested by agencies in administering the MINI and the RAFFT, a summary score was calculated to evaluate the average total time it took to administer and score each of the instruments at each agency. Table 2 indicates these findings.

Table 2. Mean time to administer and score the screening instruments

Agency	**MINI**		**RAFFT**	
	Mean	Standard Deviation	Mean	Standard Deviation
BCMHD	12.31	6.46	4.83	3.27
New Horizons	19.40	1.53	2.26	.86
ACBC	12.22	3.69	2.00	.00

As expected, these results indicate that the modified MINI takes much longer to administer than the RAFFT. The findings also suggest inter-agency variability in the administration of the questionnaires. For example, evaluators at New Horizons took about seven minutes longer to administer and score the modified MINI, while evaluators at Broome County Mental Health Department took approximately two minutes longer than the other agencies to administer and score the RAFFT.

Table 1 displays the differences between instruments and agencies in regard to the utility ratings. While the results from New Horizons indicated low ratings of utility on the MINI and the RAFFT, the trends at BCMHD and ACBC showed moderate to high rates of utility for the modified MINI and low rates of utility for the RAFFT. As utility ratings on the RAFFT were low across agencies, this data suggests that the MINI was perceived as a more useful instrument than the RAFFT. (The reader is referred to Appendix E for specific feedback and comments from the screeners.)

There also was variation in the total scores produced on the modified MINI. (Refer to Table 1 for scoring information for the MINI and the RAFFT.) Results indicated that individuals at the mental health agency (BCMHD) scored higher on the MINI and lower on the RAFFT. From the other perspective, individuals at the substance abuse agencies (New Horizons and ACBC) scored higher on the RAFFT and lower on the MINI. As individuals who present with serious mental health problems as their primary concern are

more likely to seek mental health services, it would be expected that they would score higher on the MINI. The same justification would be given for individuals seeking treatment in substance abuse agencies to score higher on the RAFFT.

Graphs 1 through 3 illustrate the distribution of these scores at each agency. The skewness of the MINI and RAFFT scores (i.e., emphasis in one direction) varied by type of agency. Though there are obvious differences in the clients who are screened at mental health or substance abuse agencies, using both instruments at both types of agencies helps to identify individuals who are outliers (i.e., individuals scoring in the extremes) and whose mental health or substance abuse problems otherwise may go undetected. For example, in reviewing Graphs 2 and 3, it is apparent that there is a definite sub-portion of clients in substance abuse agencies who scored high on the MINI and who may be considered to have serious mental health concerns.

Summary

The purpose of this evaluation was to identify effective screening instruments which could identify individuals with co occurring mental health and substance abuse disorders. A number of instruments were researched and, with the guidance of the Screening and Assessment Workgroup, two instruments were selected to be further evaluated. Two substance abuse agencies and one mental health agency participated in a pilot study to assess the utility of the Modified MINI and the RAFFT. In general, the RAFFT was not found to be useful among the clinicians participating in the pilot study. There was some support, however, for the Modified MINI. Still, among the two substance abuse agencies likely to use this instrument, impressions regarding the utility of this instrument were mixed. ACBC found it to be very useful while New Horizons did not. Results suggest, however, that the Modified MINI may be useful at identifying the seriously mentally ill among a population of substance abusers, especially if the criterion score is raised. Information gathered from the psychometric properties of these instruments, the pilot study results and the authors own observations are provided on the subsequent pages.

RAFFT

Strengths

- Assesses for both drug and alcohol use
- Short and easy to use
- Strong psychometrics (good positive predictive value, good sensitivity, acceptable negative predictive value and specificity)
- Minimal difference in sensitivity and specificity between individuals with and without psychiatric disorders
- Correlations do not indicate any effect of gender, race, or socioeconomic status

Weaknesses

- The CAGE is better at identifying alcohol use disorders
- Not as much research on it as compared to screening tools like the CAGE or MAST

Utility Scores

- All three agencies agreed that the RAFFT was not very useful as a screening tool.

Positive Feedback

Some evaluators indicated that the RAFFT was helpful. Site coordinators did not provide any positive comments about the RAFFT.

Negative Feedback

Some evaluators indicated problems in defining the period of time for which the RAFFT was screening and unclear wording. Some site coordinators provided the following comments:

- It failed to clearly define the period of time for which it was screening (i.e., what is the definition of "current"?)
- MAST or CAGE viewed as a better tool
- Useless at substance abuse agencies where everyone already has been identified with a substance disorder
- Complaint of more paperwork and extra work

Modified MINI

Strengths

- Strong psychometrics (good interrater reliability, good test-retest reliability, good predictive value)
- Provides a good deal of information on the person's mental health functioning
- Assesses a wide range of problems
- Questions are clearly worded and well-rounded in their diversity
- Easy to score
- May be useful at identifying the seriously mentally ill among a substance abuse population if criteria score is raised.

Weaknesses

- Takes about 10-15 minutes to administer, which significantly adds to interview time
- Only provides information that a problem may exist, but no details such as frequency or intensity of symptoms are provided
- May be a ceiling effect in certain populations (i.e., most people endorse the majority of items, which leads to a limited range of scores and thus hinders interpretations)
- There is no way to ascertain if the client is telling the truth
- Unlike measures like the Brief Symptom Inventory (BSI), it cannot measure progress or change over time

Utility Scores

- Broome County Mental Health Department and ACBC both reported the modified MINI as being a useful instrument
- New Horizons did not report the modified MINI as being a useful instrument

Positive Feedback

Some evaluators indicated that the modified MINI was helpful, useful, accurate, and provided fast information. Some site coordinators made comments such as:

- Effectively and accurately detected mental health diagnoses
- Provided good individual contact with clients
- Easy to administer and score
- Therapeutic tool in addition to a screening tool
- Helpful in guiding clients' treatments
- Ease of administration and scoring outweighed any cons

Negative Feedback

Some evaluators indicated that the modified MINI was lengthy and too general. Some site coordinators made comments such as:

- It was viewed as extra paperwork
- Clients referred directly from hospitals all had very high scores
- Lengthy to administer

Next Steps

Based on the aforementioned information, several steps should be taken to help facilitate the decision-making process of whether or not these screening instruments should be implemented across mental health and substance abuse agencies in Broome County. First, the results and implications of the pilot study data need to be reviewed and discussed amongst members of the Screening and Assessment Workgroup. In turn, the Workgroup should reach a consensus for recommendations at the Core Group meeting in June of 2004. If it is decided that one or both of the screening tools will be implemented across agencies, then it is advisable to meet with OMH and OASAS to discuss the process and to gain input from their experiences. Further, if one or both of the instruments are judged to be unacceptable, then the Screening and Assessment Workgroup may need to return to the original selection process to determine if another screening tool exists that may be a good option. If one or more of the instruments are used, the Workgroup may want to explore possibly changing the criterion scores of these measures used to identify substance abuse or mental health problems.

Appendix A

RAFFT[3]

Please answer the following questions with regard to your current substance and/or drug use.

1. Do you drink/use drugs to relax, feel better about yourself, or fit in?

   YES NO

2. Do you ever drink or use drugs while you are by yourself or alone?

   YES NO

3. Do any of your close friends drink/use drugs?

   YES NO

4. Does a close family member have a problem with alcohol/drugs?

   YES NO

5. Have you ever gotten into trouble from drinking/using drugs?

   YES NO

TOTAL SCORE: _____

[3] Bastiens, L., Riccardi, K., & Sakhrani, D. (2002). The RAFFT as a screening tool for adult substance use disorders. *American Journal of Drug and Alcohol Abuse*, 681-690.

RAFFT Scoring Information

Each "Yes" response of the RAFFT receives a score of 1, and each "No" response receives a score of 0.

The total for the five questions simply needs to be added together by the test administrator.

The RAFFT clearly defines a score of 3 or more as the most accurate indicator that an individual needs further assessment.

Appendix B

Modified M.I.N.I.[4]

MINI INTERNATIONAL NEUROPSYCHIATRIC INTERVIEW

Client Name: _____ Date: _____

Interviewer: _____

SECTION A

1. Have you been consistently depressed or down, most of the day, nearly every day, for the past 2 weeks?

YES NO

2. In the past 2 weeks, have you been less interested in most things or less able to enjoy the things you used to enjoy most of the time?

YES NO

2. Have you felt sad, low or depressed most of the time for the last two years?

YES NO

4. In the past month**,** did you think that you would be better off dead or wish you were dead?

YES NO

5. Have you ever had a period of time when you were feeling up, hyper or so full of energy or full of yourself that you got into trouble or that other people thought you were not your usual self? (Do not consider times when you were intoxicated on drugs or alcohol.)

YES NO

6. Have you ever been so irritable, grouchy or annoyed for several days, that you had arguments, verbal or physical fights, or shouted at people outside your family? Have you or others noticed that you have been more irritable or overreacted, compared to other people, even when you thought you were right to act this way?

YES NO

PLEASE TOTAL THE NUMBER OF "YES" RESPONSES TO QUESTIONS 1-6
SECTION B

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[4] Sheehan, D.V., Lecrubier, Y., Harnett Sheehan, K., Amorim, P., Janavs, J., Weiller, E., Hargueta, T., Baker, R., & Dunbar, G.C. (1998). The Mini-International Neuropsychiatric Interview (MINI): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *Journal of Clinical Psychology, 59,* 22-33.

7. Note this question is in 2 parts.

a. Have you had one or more occasions when you felt intensely anxious, frightened, uncomfortable or uneasy even when most people would not feel that way?

YES NO

b. If yes, did these intense feelings get to be their worst within 10 minutes?

YES NO

If the answer to BOTH a and b is YES, then code the question YES.
If the answer to either or both a and b is NO, then code the question NO.

YES NO

8. 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?
Examples Include:
__ Being in a crowd
__ Standing in a line
__ Being alone away from home or alone at home
__ Crossing a bridge
__ Traveling in a bus, train, or car

YES NO

9. Have you worried excessively or been anxious about several things over the past 6 months?

YES NO

If no to Question 9, answer "no" to Question 10 and proceed to Question 11.

10. Are these worries present most days?

YES NO

11. In the past month, were you afraid or embarrassed when others were watching you, or when you were the focus of attention? Were you afraid of being humiliated?
Examples Include:
__ Speaking in public
__ Eating in public or with others
__ Writing while someone watches
__ Being in social situations

YES NO

12. In the past month, have you been bothered by thoughts, impulses, or images that you couldn't get rid of that were unwanted, distasteful, inappropriate, intrusive, or distressing?

Examples Include:
__ Were you afraid that you would act on some impulse that would be really shocking?
__ Did you worry a lot about being dirty, contaminated, or having germs?
__ Did you worry a lot about contaminating others, or that you would harm someone even though you didn't want to?
__ Did you have fears or superstitions that you would be responsible for things going wrong?
__ Were you obsessed with sexual thoughts, images, or impulses?
__ Did you hoard or collect a lot of things?
__ Did you have religious obsessions?

YES NO

13. In the past month, did you do something repeatedly without being able to resist doing it?
Examples Include:
__ Washing or cleaning obsessively
__ Counting or checking things over and over
__ Repeating, collecting, or arranging things
__ Other superstitious rituals

YES NO

14. Have you ever experienced or witnessed or had to deal with an extremely traumatic event that included actual or threatened death or serious injury to you or someone else?
Examples Include:
__ Serious accidents
__ Sexual or physical assault
__ Terrorist attack
__ Being held hostage
__ Kidnapping
__ Fire
__ Discovering a body
__ Sudden death of someone close to you
__ War
__ Natural disaster

YES NO

15. Have you re-experienced the awful event in a distressing way in the past month?
Examples Include:
__ Dreams
__ Intense recollections
__ Flashbacks
__ Physical reactions

YES NO

PLEASE TOTAL THE NUMBER OF "YES" RESPONSES TO QUESTIONS 7-15

SECTION C
Now I am going to ask you about unusual experiences that some people have.

16. Have you ever believed that people were spying on you, or that someone was plotting against you, or trying to hurt you?

YES NO

17. Have you ever believed that someone was reading your mind or could hear your thoughts, or that you could actually read someone's mind or hear what another person was thinking?

YES NO

18. Have you ever believed that someone or some force outside of yourself put thoughts in your mind that were not your own, or made you act in a way that was not your usual self? Or, have you ever felt that you were possessed?

YES NO

19. Have you ever believed that you were being sent special messages through the TV, radio, or newspaper? Did you believe that someone you did not personally know was particularly interested in you?

YES NO

20. Have your relatives or friends ever considered any of your beliefs strange or unusual?

YES NO

21. Have you ever heard things other people couldn't hear, such as voices?

YES NO

22. Have you ever had visions when you were awake or have you ever seen things other people couldn't see?

YES NO

PLEASE TOTAL THE NUMBER OF "YES" RESPONSES TO QUESTIONS 16-22

MINI Scoring Information

Number of "YES" responses from Section A: _____

Number of "YES" responses from Section B: _____

Number of "YES" responses from Section C: _____

Total number of "YES" responses from A, B, & C: _____

"YES" response to Question #4: _____

"YES" responses to Questions #14 and #15: _____

Scores on the MINI fall into one of three "zones":

1. Green Zone
Total score of 0 – 5
(No further action needed)

2. Yellow Zone
Total score of 6-9
(Should be seriously considered for detailed diagnostic assessment; requires clinical judgement to make this decision)

3. Red Zone
Total score of 10 and above
(Should be definitely referred for assessment)

The scoring criteria decisions need to be made by each agency in order to determine which clients are referred for further assessment.

Appendix C

RAFFT Feedback Form

Please complete the following questions after each administration of the RAFFT.

Date: _____

Length of time to administer the RAFFT: _____

Length of time to score the RAFFT: _____

Client's Age: _____

Client's Gender: MALE or FEMALE

Client's Total Score on the RAFFT: _____

Did this client come to your agency with an existing substance abuse diagnosis?

YES NO

How useful was the RAFFT in assessing this client's substance use?
(Please mark an X on the following line)

_____

Not at all useful *Extremely useful*

General Comments:

Agency:

Appendix D

MINI Feedback Form

Please complete the following questions after each administration of the MINI.

Date: _____

Length of time to administer: _____

Length of time to score: _____

Client's Age: _____

Client's Gender: *MALE* *or* *FEMALE*

Client's Total Score on the MINI: _____

Did this client come to your agency with an existing mental health diagnosis?

YES *NO*

How useful was the MINI in assessing this client's psychopathology?
(Please mark an X on the following line)

_____

Not at all useful *Extremely useful*

General Comments:

Agency:

Appendix E. Feedback and comments from the pilot study screeners.

Comments Regarding the Modified MINI

BCMHD

"Client is mentally ill. Could not fully understand."

"Client referred back to Kingston."

"Helpful, but lengthy."

"Useful, but lengthy."

New Horizons

"Not useful"

"Accurate"

"Is a client in outpatient mental health clinic"

"This client has been referred already to Outpatient Mental Health at the IOP level."

"Zero issues. Does well in our groups."

"Too generalized." (NOTE: This was mentioned 4 times)

"Sees therapist. Issues being addressed. Knew this without test."

"Accurate"

"Matches opinion that this man is pretty healthy."

"He presents very healthy. Question test."

"No mental health issues"

"Do not know client. First day in this group."

"He sees a counselor individually. Issues being addressed."

"Questions too general." (Note: This was mentioned 5 times)

ACBC:

"Easy to administer, fast information"

"Agreed with initial diagnosis of the psychiatrist."

"Great assessment tool."

"Patient had diagnosis this week for depression/anxiety and has started meds."

Comments Regarding the RAFFT

BCMHD

"Client is mentally ill. Could not fully understand."

"Client needed to be referred for drug/alcohol treatment."

"What period of time would you consider current substance abuse? Two years, one year, six months?"

"Client assessed "no" because [questions] 1-4 written in present tense."

"Helpful."

"Client has a long history of polysubstance dependence but because of wording of RAFFT, only answered one question YES."

"[rated low utility] because client has past history of misuse of ETOH."

New Horizons

"____ was referred by ACC."

"Patient came from Broome County Mental Health where he was given this test (RAFFT), and they sent him here rather than evaluate him there."

"This client was referred by OPMH and didn't think she belonged here—RAFFT was a good introduction for me to begin."

"Patient was self-referred. He readily admitted his concern about his alcohol use and frequency."

"Patient's last use was 1999. Had to ask questions in past—present answers all NO."

"Previously in treatment here."

"Patient had a previous assessment at the agency and was diagnosed at that time."

“Patient was previously here—I had her history.”

“Previously treated for substance dependency.”

“Paperwork (referral info) here prior to evaluation.”

“Primary diagnosis would be mental health—client reports no use of substances.”

“Repeat patient—several inpatient/outpatient treatment regimens.”

“Patient answered questions since “cutting down” use.”

“Patient self-reported previous treatment regimens and legal history.”

“Client reports living in structured drug-free residence and previous halfway house placements.”

“Patient here for DMV clearance—she brought documentation.

“Patient had been evaluated here previously.”

“Patient reports having been in detox in March, 2004.”

ACBC:

No comments were made.