

Competency Assessment Instrument (CAI): An Instrument to Assess Competencies of Providers Treating Severe Mental Illness

Serious mental illnesses (SMI) such as schizophrenia are expensive and challenging to treat. One approach to enhance the quality of care is to improve provider competencies. Provider competencies include the critical attitudes, knowledge, and skills providers need to deliver high quality care. The measurement of provider competencies can be useful in hiring and quality improvement efforts.

Background and History

Given the potential utility of a competency instrument, researchers at the VISN 22 MIRECC at the West Los Angeles VA, Value Options Healthcare, RAND, and Comprehensive Neuroscience Inc created such an instrument through a project funded by the Center for Health Care Strategies, a subsidiary of the Robert Wood Johnson Foundation.

First, the instrument, called the Competency Assessment Instrument (CAI), was developed using a list of competencies for providers of clients with SMI assembled by Alex Young and collaborators (Young et al., 2000). The set of competencies was assembled by reviewing existing literature and competency statements, and conducting focus groups, interviews, and an expert panel with representatives of clients, family members, clinicians, managers, policy-makers and experts. The set of 37 competencies identified are important in determining outcomes, emphasize such concepts as rehabilitation, self-help, client empowerment, and recovery, and have often been found to be lacking in current clinicians. Then the instrument was evaluated using providers who deliver services to SMI clients at several clinics within five publicly financed treatment organizations under a behavioral managed care company in two western states (Chinman et al., In press).

The Competency Assessment Instrument (CAI)

The CAI measures 15 provider competencies developed by Young et al (2000) that were viewed as central to recovery-oriented care. Each competency is measured with its own scale, which is made of a combination of three to five Likert items requesting a numerical response on a four or five-point scale. Demographic questions assessing race/ethnicity, gender, education level, job title, job duties, and number of years in mental health are also included. The first two tables below show the 15 competency scales, the items that comprise them, and the corresponding item number on the CAI. Using the baseline and two-week data from the project, Chinman et al. (In press) conducted psychometric analyses on the 15 CAI scales and found that most scales are reliable and valid.

The next two tables in this section provide scale-by-scale instructions on how to calculate the CAI scale scores, including which items need to be reverse coded. The final table displays a set of items that were included in the final CAI but that were not part of any of the 15 scales.

For more information about the CAI development and evaluation or the list of competencies, follow the links listed in the references on the last page.

Competency Assessment Instrument CAI Scales & Items

| Scales | Item # | Items |
|---|--------|---|
| Goal Functioning ¹ : Assists clients in acquiring the skills needed to get and keep chosen goals. | 23a | Assessed the client's level of functioning in relation to a personal goal |
| | 23b | Discussed the client's strengths and weaknesses in relation to a personal goal |
| | 23c | Discussed strategies to help the client achieve their goals |
| Stress ¹ : Helps clients understand and cope with stressors that trigger deterioration. | 23d | Helped the client identify people who can assist them during a crisis |
| | 23e | Identified triggers that cause the client's symptoms to get worse |
| | 23f | Identified warning signs that come before the client gets symptoms |
| | 23g | Helped the client decide how to respond to triggers and warning signs |
| Client Preferences ² : Learns and respects their clients' preferences regarding their treatment. | 15 | It is sometimes necessary to disregard a client's preferences in order to provide the best treatment |
| | 16 | Every behavioral health provider needs to know their clients' preferences about the selection of psychiatric medications |
| | 20 | Respecting clients' choices improves their functioning |
| | 21 | Almost all clients can learn how to make well-informed choices about their care |
| Intensive Case Management ³ : Leaves the office to help clients obtain services and housing. | 32b | Leaving the office with clients to help them obtain housing or benefits |
| | 32c | Helping clients find more programs, entitlements, or services |
| | 32d | Assisting clients when agencies deny them services or benefits |
| Holistic Approach ² : Elicits clients' life experiences in a trusting atmosphere. | 25 | The diagnosis of a client affects whether rehabilitation is possible |
| | 26 | It is best to keep my work with clients focused on their mental illness |
| | 27 | Whether a client can return to work is related to how strong their psychotic symptoms are |
| | 28 | The goals of "normal" people are often too stressful for clients |
| Family Education ⁶ : Educates family members and other caregivers about mental illness. | 45a | How confident are you about providing education to family members about psychiatric illness |
| | 45b | How confident are you about providing education to family members about medication treatment |
| | 45c | How confident are you about providing education to family members about rehabilitation |
| | 45d | How confident are you about providing education to family members about mutual support groups |
| Rehabilitation: Practices professionally accepted psychiatric rehabilitation. (Scale has items with different response choices-see individual item) | 33a | ² Try to direct Jane towards more practical ideas that don't involve horses |
| | 33b | ² Acknowledge her interest, but don't intervene since her goal does not seem realistic |
| | 34 | ⁹ What percentage of all your clients could benefit from rehabilitation services that are designed to substantially improve their functioning? |
| | 35 | ⁹ What percentage of all your clients could benefit from rehabilitation services that specifically focus on work? |
| | 36 | ⁹ What percentage of all your clients are currently receiving rehabilitation services that focus on work? |
| Skills advocacy: Creates opportunities for clients to practice skills. (Scale has items with different response choices-see individual item) | 46 | ⁷ How often do you arrange activities in which clients can practice making decisions for instance, shopping or opening a bank account? |
| | 47 | ⁷ How often do you assist clients in maintaining activities that are meaningful to them? |
| | 48 | ⁷ How often do you teach clients confidence building and self-advocacy skills? |
| | 32a | ³ How often do you usually teach clients about medication and the symptoms of their illness? |
| | 32f | ³ How often do you usually teach clients about rehabilitation? |

Competency Assessment Instrument CAI Scales & Items (continued)

| Scales | Item # | Items |
|---|--------|---|
| Integration/ Natural Supports ⁵ : Encourages clients to choose, find and use their own natural supports. | 42a | How many of your clients are involved in 12-step groups such as AA or Double Trouble? |
| | 42b | How many of your clients are involved in mutual support groups? |
| | 42c | How many of your clients are involved in hobby clubs or other organized social groups? |
| Stigma ² : Works with clients to cope with being stigmatized. | 41a | Clients with mental illness experience discrimination every day |
| | 41c | I am aware of common stereotypes about people with mental illness |
| | 41d | The stress of discrimination often causes clients' symptoms to increase |
| Community Resources ⁴ : Refers clients to local employment, self-help and other rehabilitation programs. | 37 | How often does the presence of too few programs that help people obtain employment interfere with improving your client's functioning |
| | 39 | How often does the difficulty of getting clients accepted into rehabilitation programs interfere with improving your client's functioning |
| | 40 | How often does the lack of self-help groups interfere with improving your client's functioning |
| Medication Management ² : Teaches clients symptom and side-effect self-monitoring skills. | 30 | All clients can learn to accurately identify psychiatric symptoms and medication side-effects |
| | 31 | With correct use of medication, symptoms can be reduced to very low levels in almost all clients |
| Family Involvement ³ : Involves family members and helps them cope effectively. | 32e | Teaching family members about mental illness |
| | 32g | Gathering information from family members or friends |
| | 32i | Helping family members cope with stress |
| Team Value ² : Provides services as part of a strongly coordinated team. | 51 | Mental health professionals from other agencies are usually included when we problem solve about particular clients |
| | 52 | I often don't have enough time to coordinate services between the various members of the treatment team |
| | 53 | I can have other staff members assist with my clients when those staff member have a particular skill |
| | 54 | We have regular meetings as a team to problem-solve about particular clients |
| Evidence-based practice ⁸ : Focuses on services that have been demonstrated to improve outcomes. | 22a | How effectively does completing a structured diagnostic assessment improve outcomes in your clients |
| | 22b | How effectively does adjusting, when necessary, the dosage of psychiatric medication improve outcomes in your clients |
| | 22c | How effectively does providing intensive treatment in the community not at clinics and offices improve outcomes in your clients |
| | 22d | How effectively does educating and helping family and friends improve outcomes in your clients |
| | 22e | How effectively does teaching the client how to improve their daily functioning improve outcomes in your clients |
| Optimism (Grusky et al, 1989) ¹⁰ : Assesses the degree to which providers in community mental health systems believe that their clients will improve and have positive outcomes. | 12a | Will remain in the mental health system for the rest of their lives |
| | 12b | Will be able to greatly increase their involvement in the community |
| | 12c | Will be able to function very well in the community |
| | 12d | Will need to be hospitalized again in the future |
| | 12e | Will remain pretty much as they are now |
| | 12f | Will find work that enables them to be economically self-sufficient |

*Scale Response Choices:

- 1 1=All clients to 5=few or no clients
- 2 1=Strongly agree to 5=Strongly disagree
- 3 1=Several times a day to 5=Never
- 4 1=Always a problem to 5=Never a problem
- 5 1=All to 5=None

- 6 1=Completely confident to 4=Little or no confidence
- 7 1=All the time to 5=Rarely or never
- 8 1=Extremely effective to 4=Little or no effect
- 9 0% to 100
- 10 1=Almost all to 5=None

How to Calculate the CAI Scales

The following table shows how to calculate a single score for each scale. Because different types of items are combined to form the scales, we recommend recoding the items (and their scales) so that they range from 0 to 1 (with 0 representing the absence of competency and 1 representing complete competency).

| Scales | Item # | Procedures | R=Item score is Reversed |
|-------------------------------|--------|---|--------------------------|
| Goal Functioning | 23a | <ul style="list-style-type: none"> Recode all three items using the following: $((6\text{-item score})-1)/4$ Average the three scores together to create a scale score Only calculate the scale if 2 out of the 3 items are present (non-missing) | R |
| | 23b | | R |
| | 23c | | R |
| Stress | 23d | <ul style="list-style-type: none"> Recode all four items using the following: $((6\text{-item score})-1)/4$ Average the four scores together to create a scale score Only calculate the scale if 3 out of the 4 items are present (non-missing) | R |
| | 23e | | R |
| | 23f | | R |
| | 23g | | R |
| Client Preferences | 15 | <ul style="list-style-type: none"> Reverse and recode #15 with the following: $(\text{item score}-1)/4$ Recode #s 16,20,21 using the following: $((6\text{-item score})-1)/4$ Average the four scores together to create a scale score Only calculate the scale if 3 out of the 4 items are present (non-missing) | |
| | 16 | | R |
| | 20 | | R |
| | 21 | | R |
| Intensive Case Management | 32b | <ul style="list-style-type: none"> Recode all three items using the following: $((6\text{-item score})-1)/4$ Average the three scores together to create a scale score Only calculate the scale if 2 out of the 3 items are present (non-missing) | R |
| | 32c | | R |
| | 32d | | R |
| Holistic Approach | 25 | <ul style="list-style-type: none"> Reverse and recode all four items with the following: $(\text{item score}-1)/4$ Average the four scores together to create a scale score Only calculate the scale if 3 out of the 4 items are present (non-missing) | |
| | 26 | | |
| | 27 | | |
| | 28 | | |
| Family Education | 45a | <ul style="list-style-type: none"> Recode all four items using the following: $((5\text{-item score})-1)/3$ Average the four scores together to create a scale score Only calculate the scale if 3 out of the 4 items are present (non-missing) | R |
| | 45b | | R |
| | 45c | | R |
| | 45d | | R |
| Rehabilitation | 33a | <ul style="list-style-type: none"> Reverse and recode #s 33a & 33b with the following: $(\text{item score}-1)/4$ Reverse and recode #s 34,35,36 with the following: $(100\text{-item score})/100$ Average the five scores together to create a scale score Only calculate the scale if 3 out of the 5 items are present (non-missing) | |
| | 33b | | |
| | 34 | | |
| | 35 | | |
| | 36 | | |
| Skills advocacy | 46 | <ul style="list-style-type: none"> Recode all five items using the following: $((6\text{-item score})-1)/4$ Average the five scores together to create a scale score Only calculate the scale if 3 out of the 5 items are present (non-missing) | R |
| | 47 | | R |
| | 48 | | R |
| | 32a | | R |
| | 32f | | R |
| Integration/ Natural Supports | 42a | <ul style="list-style-type: none"> Recode all three items using the following: $((6\text{-item score})-1)/4$ Average the three scores together to create a scale score Only calculate the scale if 2 out of the 3 items are present (non-missing) Count the "Don't know" response (=6) as missing | R |
| | 42b | | R |
| | 42c | | R |
| Stigma | 41a | <ul style="list-style-type: none"> Recode all three items using the following: $((6\text{-item score})-1)/4$ Average the three scores together to create a scale score Only calculate the scale if 2 out of the 3 items are present (non-missing) | R |
| | 41c | | R |
| | 41d | | R |
| Community Resources | 37 | <ul style="list-style-type: none"> Reverse and recode all three items with the following: $((6\text{-item score})-1)/4$ Average the three scores together to create a scale score Only calculate the scale if 2 out of the 3 items are present (non-missing) | R |
| | 39 | | R |
| | 40 | | R |
| Medication Management | 30 | <ul style="list-style-type: none"> Recode both items using the following: $((6\text{-item score})-1)/4$ Average the two scores together to create a scale score Only calculate the scale if both items are present (non-missing) | R |
| | 31 | | R |
| Family Involvement | 32e | <ul style="list-style-type: none"> Recode all three items using the following: $((6\text{-item score})-1)/4$ Average the three scores together to create a scale score Only calculate the scale if 2 out of the 3 items are present (non-missing) | R |
| | 32g | | R |
| | 32i | | R |

How to Calculate the CAI Scales (continued)

| Scales | Item # | Procedures | R=Item score is Reversed |
|-------------------------|--------|--|--------------------------|
| Team Value | 51 | <ul style="list-style-type: none"> • Reverse and recode #52 with the following: $(\text{item score}-1)/4$ • Recode #s 51,53,54 using the following: $((6\text{-item score})-1)/4$ • Average the four scores together to create a scale score • Only calculate the scale if 3 out of the 4 items are present (non-missing) | R |
| | 52 | | |
| | 53 | | R |
| | 54 | | R |
| Evidence-based practice | 22a | <ul style="list-style-type: none"> • Recode all five items using the following: $((5\text{-item score})-1)/3$ • Average the five scores together to create a scale score • Only calculate the scale if 3 out of the 5 items are present (non-missing) | R |
| | 22b | | R |
| | 22c | | R |
| | 22d | | R |
| | 22e | | R |
| Optimism | 12a | <ul style="list-style-type: none"> • Reverse and recode #12a, 12d, 12e with the following: $(\text{item score}-1)/4$ • Recode #s 12b, 12c, 12f using the following: $((6\text{-item score})-1)/4$ • Average the six scores together to create a scale score • Only calculate the scale if 4 out of the 6 items are present (non-missing) | |
| | 12b | | R |
| | 12c | | R |
| | 12d | | |
| | 12e | | |

Additional Non-Scale Items on the CAI

| Item # | Items |
|--------|---|
| 13 | My clients know what to do when their mental health begins to deteriorate |
| 14 | Every client served by my agency should have a clearly documented crisis prevention plan |
| 17 | Functional assessment consists primarily of identifying a client's capacities regarding activities of daily living |
| 18 | When a client has a suggestion for improving our services, I am often able to get it implemented |
| 19 | The program I work in has clear procedures for implementing client suggestions |
| 20 | Respecting clients' choices improving functioning |
| 21 | Almost all clients can learn to make well-informed choices about their care |
| 23h | Identify role models who demonstrate that improvement is possible |
| 23i | Expose clients to more independent living options in their community |
| 24 | I always seek out clients who have left treatment to see if they should return to treatment |
| 29 | It is best to wait until clients are mostly symptom free before discussing their goals |
| 38 | Little client interest in changing their functioning |
| 41b | There is little that clients can do about discrimination |
| 43 | I always encourage my clients to join self-help groups |
| 44 | As long as a client is seeing their psychiatrist, other staff usually don't need to ask about medication side-effects |
| 49 | Involving family members or friends in treatment often makes things worse for the client |
| 50 | I have contacts at a number of community programs where my clients can become involved |
| 55 | I talk on a regular basis with my clients' psychiatrists |

References

1. Chinman MJ, Young, AS, Rowe M, Forquer S, Knight E, Miller A. (In press). An instrument to assess competencies of providers treating severe mental illness. Mental Health Services Research.
2. Grusky O, Tierney, K, Spanish MT. Which community mental health services are most important? Administration & Policy in Mental Health. 1989; 17: 3-16.
3. Young, A. S., Forquer, S. L., Tran, A., Starzynski, M., & Shatkin, J. (2000). Identifying clinical competencies that support rehabilitation and empowerment in individuals with severe mental illness. Journal of Behavioral Health Services Research, 27(3), 321-333