

# **MANUAL FOR THE CLINICAL ASSESSMENT INTERVIEW FOR NEGATIVE SYMPTOMS (CAINS)**

**Developed by: CANSAS Collaborative Group**

*(Collaboration to Advance Negative Symptom Assessment in Schizophrenia Research)*

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## INTRODUCTION TO THE CAINS

Negative symptoms are an absence or decrease in subjective experiences and behaviors that are normally present in a person from the same culture. Negative symptoms include experience-related deficits (decreases in desire for close relationships, decreases in motivation, and decreases in pleasure) and expression deficits (decreases in the outward expression of emotion and speech). Negative symptoms are distinct from other features of schizophrenia and related disorders, including psychotic, disorganization, mood, and anxiety symptoms, and cognitive deficits.

The Clinical Assessment Interview for Negative Symptoms (CAINS) was developed through a multi-stage scale development process to measure current level of severity of negative symptoms in people with schizophrenia and schizoaffective disorder (Forbes et al., 2010; Blanchard et al., 2011; Horan et al., 2011; Kring et al., submitted). The time frame for the ratings is the past **one-week**. The scale was designed for use in treatment trials but it can also be used in other types of negative symptom research.

Unlike most negative symptom scales that provide a single negative symptom severity rating, the CAINS is comprised of two scales that are scored separately. Instead of reporting a single negative symptom severity rating, separate scores are reported for the nine-item Motivation and Pleasure scale and the four-item Expression scale. The items within these scales and the basis for scoring the items are summarized in the following tables:

### 1. Motivation and Pleasure (MAP) Scale

<u>Item</u>	<u>Name</u>	<u>Basis for ratings</u>
1.	Motivation for Close Family/Spouse/Partner Relationships	Reported motivation and desire for close relationships and engagement in relevant interactions
2.	Motivation for Close Friendships & Romantic Relationships	Reported motivation and desire for close relationships and engagement in relevant interactions
3.	Frequency of Pleasurable Social Activities – Past Week	Reported number of days that pleasurable social activities were experienced
4.	Frequency of Expected Pleasurable Social Activities – Next week	Reported number of expected pleasurable social activities in the following week
5.	Motivation for Work & School Activities	Reported motivation and desire for work or school and engagement in relevant activities
6.	Frequency of Expected Pleasurable Work & School Activities – Next Week	Reported number of expected pleasurable work or school activities in the following week
7.	Motivation for Recreational Activities	Reported motivation and desire for recreational activities and engagement in relevant activities
8.	Frequency of Pleasurable Recreational Activities - Past Week	Reported variety and daily frequency of pleasurable recreational activities
9.	Frequency of Expected Pleasurable Recreational Activities – Next Week	Reported number of expected pleasurable recreational activities in the following week

## 2. Expression (EXP) Scale

<u>Item</u>	<u>Name</u>	<u>Basis for ratings</u>
10.	Facial Expression	Observations of behavior throughout the interview
11.	Vocal Expression	Observations of behavior throughout the interview
12.	Expressive Gestures	Observations of behavior throughout the interview
13.	Quantity of speech	Observations of behavior throughout the interview

All ratings are based on a semi-structured interview with prompts and queries. Items are rated on a 5-point (0-4) scale, with anchor points ranging from the symptom being absent (0) to severe (4). It should be noted that lower “impaired” scores on several of the items may be within the range of normal variation in the general population. All ratings should be made based solely on descriptors in the anchors without attempting to compare them to clinical or non-clinical reference groups.

### Organization of the CAINS Manual

The manual first covers general considerations and issues specifically relevant to rating motivation and pleasure. Then, the manual covers each item by including a definition and basis for rating, the item anchor points, considerations specific to that item, and an illustrative vignette to demonstrate what each anchor point might look like in the context of a person’s reported experience.

### General Considerations When Using the CAINS

1. Administration of the CAINS requires **following the interview probes detailed in the measure**. Although it is not necessary to ask all the suggested questions during the interview, it is important to follow the structure of the probes provided verbatim and to ask as many questions as is necessary to make an informed rating. It is important not to veer off the provided interview probes other than in the service of good clinical interviewing and needed follow-up questions for clarification.
2. In general, it is important to begin with open-ended questions and then follow-up with more specific questions and prompts for information and clarification. Avoid when possible questions that encourage “yes” or “no” responses. Yes or no responses should be followed up with additional probes as necessary to elicit information required to make the ratings.
3. Relatedly, Interviewers should avoid asking leading questions whenever possible. For example, when asking about frequency of pleasurable recreational activities - past week, the interviewer should not bring up specific activities but rather begin with the general probe questions provided in the interview. As another example, if a person denies any pleasurable experiences in response to probes for the frequency of pleasurable social activities – past week item, the interviewer should not probe further by asking, “You mentioned earlier that you went shopping with your mother on Tuesday – was there something that you found enjoyable during that afternoon you spent together with her?” It is also important for interviewers to avoid the excessive use of probe questions – the

goal is to obtain information offered in response to the probes provided in the interview rather than working to extract as much information as possible.

4. Many of the follow up probe questions are included to ascertain whether the participant's reports reflect other factors or symptoms (delusions, depression) instead of the negative symptoms that are rated on the CAINS. Other clinical assessments may be informative when conducting the CAINS. Investigators might find it useful to do other clinical ratings prior to completing the CAINS (e.g., positive symptoms, depression, agitation, anxiety).
5. Some people may report experiencing or expecting to do events or have social interactions that are very unlikely (e.g. have a conversation with the President at work) or are based on psychotic beliefs/experiences (e.g., romantic involvement with a character on TV). In general, these experiences should NOT be counted as they occur in the context of psychotic symptoms. Continue probing to try to find material that is realistic and not delusional.
6. If someone brings up material in the interview that is relevant to a different item (e.g., someone brings up a social pleasure during the recreational pleasure items, but hadn't mentioned it during the social section), the information should be counted in the appropriate rating item and, if necessary, the prior rating should be revised to reflect new information. For example, when asking about particular social relationships where a person may have talked about family, friends, and romantic partners, a person may offer answers related to pleasure or enjoyment that should be followed up when asking about pleasure specifically. For example, "You told me earlier about how you enjoyed dinner with your family; I want to ask a bit more about these kinds of things you may have enjoyed with other people in the past week."
7. If a rater is torn between two scores (0 vs 1, 1 vs 2), **provide the higher (more pathological) rating**. Indeed, it is often a difficult decision to make between two anchor points as a person's response to interview probes may seem to fall between two anchors. For example, a person may have attended the one class he takes as a part time student and reported being motivated "for the most part", though he acknowledged it was difficult to get up early to make it three days a week. This would suggest a rating of 1. To achieve agreement across sites, interviewers should apply the higher rating when such a situation occurs.
8. Interviewers should avoid asking hypothetical questions. For example, if a person reports that interactions with his family have been stressful over the past week and there have been no enjoyable interactions, the Interviewer should not ask, "If you hadn't been arguing with your family, do you think you would have enjoyed spending time with them?" Instead, if there were no social contacts, be sure to ask if during the past week the person missed interactions, was interested in them, etc., so that level of interest/desire can be factored in even though the person was not in contact with others.

### **Considerations for the Motivation Items (items 1, 2, 5, & 7)**

A key aspect of the CAINS motivation items is the dual consideration of experiential (internal) factors as well as actual behavior. This is reflected in anchors that incorporate desire/interest or motivation with behavior. One issue that arises is how to weigh experiential aspects with behavior when the two may not necessarily agree. Below are several guidelines:

1. Behavioral deficits alone are not sufficient for rating high levels of pathology. Behavioral deficits may arise because of other factors such as opportunity or psychotic symptoms. Thus, when behavioral deficits are observed it is important to explore the reasons for such difficulties to

determine if they are more accurately attributable to external factors (e.g., living circumstances; financial factors; medical [nonpsychiatric] problems).

2. For all motivation items, if a person describes a high level of interest and desire for relevant experiences but has not engaged in any relevant behavior during the rating period, the lowest (least pathological) permissible rating is “2”.
3. When reports of internal experience (desire, drive) appear to be discrepant from behavior, it is necessary to probe for reasons that may underlie this lack of consistency. The lack of agreement could suggest that the verbal report is problematic or merely reflects socially desirable responses. Alternatively, the lack of behavior may occur due to other factors and the self-report may be deemed credible. Asking the person about the reasons for a lack of behavior, and even noting the discrepancy with their self-reported motivation or interest, may provide additional information to resolve the ratings. If the reasons provided are convincing, then the final rating will be weighted in the direction of internal experience.

Example: If the person reports high levels of interest in family relationships but has not interacted with any family members in the last week, the rater should explore why the person has not sought to initiate contact given the apparent importance of such relationships. Considerations that have been encountered on the CAINS include reports of family being out of town or living far away to explain lack of current relationship efforts. In these cases the people noted their clear interest and desire for close family relationships but felt that their current circumstances would not allow them to interact with family members. In these cases, a rating of 2 was assigned rather than a rating of 4 if just the lack of behavior had been considered.

### **Considerations for the Pleasure Items (items 3, 4, 6, 8, & 9)**

1. The CAINS rates two distinct aspects of pleasure: past week and future week. It should be noted that the nature of probing used to assess these two aspects of pleasure differs in the CAINS interview. For the past pleasure items (3 and 8), the interviewer is attempting to obtain the most accurate assessment of a person’s pleasurable experiences that occurred in the past week. Therefore, it is clinically appropriate to bring up specific enjoyable events or interactions that were mentioned in a different section of the interview but that were not discussed in response to probe questions for items 3 and 8 in order to get an accurate count of past week experienced pleasure (see point 2 on the next page). Ignoring such reports of pleasure could yield an inaccurate assessment.

By contrast, the future week pleasure items (4, 6, and 8) are intended to assess a person’s ability to generate future predictions or expectations about pleasurable events or activities. Thus, it is important to avoid leading questions in these items because the clinical goal is to assess capacity to generate these expected events and activities rather than providing a person with them and then asking them to report on expected pleasure. Thus, the interview probes for these items are purposely more general than past pleasure so that the person must generate the answer without the benefit of particular events or activities being suggested by the interviewer.

2. If a person mentions clearly enjoying something during an earlier or later section of the CAINS but does not bring up these experiences in response to the initial probes for the pleasurable social or recreational activities in the **past week items**, the interviewer should refer to this material. This

material should be brought up by the interviewer if and only if the person provided a clear verbal indication that the relevant experience(s) were pleasurable – it is not necessary that the person used the word “pleasure” in the other sections of the interview, but a close synonym (e.g., enjoyed, liked) is required. For example, if a person states that she had fun going to dinner with her brother during the motivation for close family/spouse/partner relationships item (# 1), the interviewer should refer to this experience during the frequency of pleasurable social activities – past week item (# 3) if the person doesn’t mention the event in response to the general probe questions for this item; if the person did not provide any indication that the interaction was enjoyable during the motivation for close family/spouse/partner relationships item, the interviewer should not refer back to this experience during the frequency of pleasurable social activities – past week item.

3. Past week or future week events may include the experience of pleasure as well as unpleasant emotions. Thus, if a person reports negative emotions the interviewer should not assume an absence of pleasure and should ask about the experience of pleasure.
4. Pleasurable experiences of any intensity/magnitude are considered (i.e., there is no threshold for only counting highly pleasurable experiences). Any experience described as pleasurable or enjoyable is counted.
5. The rating anchor points for past week pleasure differ for the Social and Recreational domains. It is particularly important to pay attention to the basis for these ratings – the Social item rating is based on the number of days when pleasure was experienced whereas the Recreation item is based on the number of days and diversity of experiences.
6. Interviewers should use follow-up probes for frequency of pleasure items to assess for nature of enjoyment and not just accept a “yes” answer (e.g., “Tell me what you enjoyed about it” or “What did you find pleasurable?”). Raters should only rate those instances where there is some elaboration on the pleasure experienced.
7. Past week and future week pleasure ratings should be based solely on the person’s reported emotional experience, regardless of whether there is any accompanying observable expression of positive emotions (e.g., a person with a very high level affective flattening in the face, voice, or gestures can still receive ratings of “0” on the pleasure-related items).

## MOTIVATION AND PLEASURE (MAP) SCALE

### I. SOCIAL: Motivation & Pleasure

#### Items 1 – 2: Social Motivation (Family/Spouse/Partner Relationships; Friends/Romantic Relationships)

##### General Definition

Impairment in motivation for social relationships is defined in terms of decreased interest in, desire/motivation for, and actual engagement in social relationships. Ratings are made in the areas of Family/Spouse/Partner Relationships and Friendships/Romantic Relationships. The item ratings are based on 1) reports of internal experiences, including the degree to which the person values and desires close social bonds and the person's motivation to engage and persist in these interactions and relationships 2) observable behaviors, namely, the extent to which the person actually engages in interactions with others and 3) desire to change if relationships are lacking.

##### General Basis for Ratings

Ratings are based on the person's self-reported motivation, interest, and desire for social interactions as well as actual social behavior. Internal experience relates to self-reported beliefs, level of interest, motivation to seek out, engage, and persist in relationships, and preference reported for relationships with others. People lacking any interest or motivation for close affiliative relationships may report internal experiences such as:

- a) Belief that close, intimate relationships are not important or valuable
- b) Limited motivation to maintain or develop close relationships
- c) Lack of interest in mutual caring and sharing with other people
- d) Preference for non-social activities
- e) Lack of loneliness even though isolated
- f) Lack of interest in cooperating and working together with others
- g) If lacking a close relationship, person reports no desire to establish such a relationship

Social behavior can provide further evidence for these interests, but it is important to consider if a lack of behavior reflects lack of opportunity rather than lack of interest. For instance, a person may have limited social activity, but may receive a somewhat lower rating on this scale *if* the person reports clear interest in and desire for close personal relationships. A lack of motivation may be reflected in social behavior, such as:



- a) When in a social setting, engaging in only superficial or brief exchanges, remaining aloof, or receding into the background
- b) Having no other person that the person is “close” or “intimate” with, including the lack of someone to discuss personal matters
- c) Absence of participation in events or activities with other people
- d) If lacking a close relationship, person shows no attempt to initiate relationships with others
- e) Limited initiation and persistence in social relationships; rarely seeks out interactions with other people

When there is a discrepancy between reported interest (e.g., apparent motivation, interest and desire) and behavior (e.g., isolation), the interviewer should ask probe questions about internal experience to ensure that the subject is not simply providing socially appropriate responses. If probing yields convincing and credible responses then interest can receive greater weight than behavior. **If a person reports a great deal of interest but no behavior to correspond to that interest, a score of 2 is warranted.**

Within each social context the interviewers should first attempt to determine if there has been any social contact in the week prior to the interview. This is followed-up by determining the nature of the contact including the frequency, duration, and the involvement or desire/interest of the person during these contacts. This information allows the interviewer to determine if social activity is occurring in each context and to what extent the person is actually involved. Such descriptions are important to determine if the person’s engagement is merely superficial or peripheral (even if contacts are frequent) as well as to determine if the person initiated and persisted in these interactions. Alternatively, a person may have fewer social contacts but these are accompanied by active engagement, frequent initiation of the contact, reflecting the person’s interest and desire for close relationships and social interaction. Finally, if there is diminished social contact in any context, the interviewer needs to use the provided questions to determine if the person has a desire for this to change so that he or she can have more close social relationships.

Romantic relationships can be rated in either Item 1 or Item 2 but NOT both. A spouse/partner relationship in which the couple is living together should be assessed in Item 1. A dating/romantic relationship in which the couple is not living together should be assessed in Item 2.

**Problematic relationships:** In some situations, a person may report not interacting with family or romantic partner because of a problematic relationship. For example, this may occur if there has been a history of abuse in the family or drug/alcohol problems in the family. The person may avoid such relationships because of these problems. In making ratings, interviewers should be sure to probe about why the subject is upset and avoiding these relationships and probe as to whether the subject nonetheless misses such relationships, is interested in them, and finds them important.

## ITEM 1: MOTIVATION FOR CLOSE FAMILY/SPOUSE/PARTNER RELATIONSHIPS

### 1.1 Rating Anchor Points

- 0 = No impairment:** VERY INTERESTED in and highly values close family bonds as one of the most important parts of life. Strongly desires and is highly motivated to be in contact with family. Regularly initiates and persists in interactions with family and actively engages in these interactions; good and bad times are openly discussed. Well within normal limits.
- 1 = Mild deficit:** GENERALLY INTERESTED in and values close family bonds though response suggests some minor or questionable reduction. Generally desires and is motivated to maintain contact with family. Has a close relationship with family member(s) in which good and bad times can be discussed. Mild deficit in initiating and persisting in regular interactions with family – generally actively engaged when interactions occur.
- 2 = Moderate deficit:** SOMEWHAT INTERESTED in family relationships and considers them somewhat important. May occasionally miss close connections with family but is only somewhat motivated to seek out interaction with family. Notable deficit in initiating and persistently engaging in interactions; discussion of good and bad times is limited. Interactions with family members may occur but are largely superficial and participation is best characterized as “going through the motions”; interactions are more likely initiated by family with mostly passive involvement of the person.
- 3 = Moderately severe deficit:** LITTLE INTEREST in family relationships (could “take it or leave it”) and does not describe family bonds as important. Describes hardly any motivation and minimal effort to have close family relationships. Rarely has discussion of good and bad times with family members. Contact and engagement with family is superficial and passive with almost all initiation and efforts to engage coming from others.
- 4 = Severe deficit:** NO INTEREST in family relationships and does not consider them at all important. Prefers to be alone and is not at all motivated to be with family. If person does see family, it is done so grudgingly, passively and with no interest.

### 1.2 Additional Considerations

1. In evaluating family/spouse/partner interactions as an indication of closeness and intimacy it is important to consider the nature of these interactions. For some people family interactions are one-sided; for example, a relative may have a sense of closeness and a strong desire for a relationship with the subject, thus actively engages and involves the subject in family activities regardless of the subject’s own desire for such interactions. In such contexts it is important to determine the person’s level of interest and desire for closeness and intimacy as the person may merely be passively responding to family members’ efforts. It is important to clarify how the person is involved (e.g., participating in the conversation) and if the person is actually interested in, motivated for, and desires this social contact with the family member(s).
2. Some people may not be able to be in contact with family members because of geographical separation or other barriers (e.g., homelessness prevents calling relatives). In this case, the interviewer should assess the person’s desire and interest in such contacts. Follow-up assessment should seek to clarify the extent of this desire to ensure that it does not merely reflect a socially desirable response.
3. In some instances a person may report that he or she avoids relatives because of family problems (e.g., drug abuse or physical violence by the person’s relative). This family disengagement should not be seen as pathological but rather an appropriate response. As noted above, in such cases

the rater should focus on the person's interest, motivation, and desire for family interaction, if this could be done in a healthy manner (e.g., the family member received treatment and recovered from their addiction).

4. A person could discuss only one family member and still possibly receive a rating of 0. This would be appropriate if the relationship reflects close and intimate bonds that the person is highly motivated to maintain. The person should also show the necessary regular initiation and persistence within the relationship.

### **1.3 Illustrative Vignettes**

0. *No impairment:* Person describes relationship with parents as very close and important to him. He has almost daily phone calls with parents that he initiates and that involve catching-up on family events and also seeking advice from father about recent difficulties with housing. Person has regularly attended family events including family dinners and other activities such as a movie night. The person describes his close and caring relationship with spouse. Comments on how supportive his wife is and how "loving" he has been toward her. Reports that he has taken daily walks with his wife during which they visit and discuss the day's events. Person reports that he is actively engaged in each of these social activities and often wants them to last longer.
1. *Mild deficit:* Person says relationship with family is "good" and "kind of important". Person notes that family (especially older brother) is helpful with financial support. He says that relationship is "good" and that he is "pretty close" with brother. He is motivated to stay in touch with his brother, and he mostly initiates conversations with him. In past week has seen brother every few days and reports that conversations are friendly but he does not always feel comfortable with discussing personal problems but will when he "needs help". Person notes that he will call his brother if he does not hear from him.
2. *Moderate deficit:* Person describes relationship with family as "alright" and "good to have" but does not elaborate. Person has irregular phone calls with siblings (about once in past week), and it is usually the siblings who initiate. Person says motivation to stay in touch is "so-so." Person says he does not usually make the effort to call family but reports that he does miss it when his siblings don't call. Person talks to family and finds out what they are doing but reports that he prefers to keep things to himself and does not share anything personal during these calls.
3. *Moderately severe deficit:* Person only sees family for "special dinners" once or twice a year (e.g., Christmas). These visits are initiated entirely by relatives and person reports that she would not care if they did not visit. All such visits are organized by the family and person notes that she does not really talk much as she "has nothing to say" to her family. She prefers to stay to herself and would not miss these dinners.
4. *Severe deficit:* Person has lost contact with his relatives even though they live in the same city. Person reports that he does not miss his family and has never made an effort to contact them. He notes that he is a "loner" and says that he does not miss contact with his relatives.

## ITEM 2: MOTIVATION FOR CLOSE FRIENDSHIPS & ROMANTIC RELATIONSHIPS

### 2.1 Rating Anchor Points

- 0 = No impairment:** VERY INTERESTED in and highly values friend/romantic relationships as one of the most important parts of life. Strongly desires and is very motivated to engage in friendships. Regularly initiates and persists in interactions with friends/partner and actively engages in these interactions; good and bad times are openly discussed. Well within normal limits.
- 1 = Mild deficit:** GENERALLY INTERESTED in and values friend/romantic relationships though response suggests some minor or questionable reduction. Generally desires and is motivated to engage in friendships. Has friendships/relationship in which good and bad times can be discussed though this may be less consistent. Mild deficit in initiating or persistently engaging during interactions with friends/partner. If no friends/relationship, misses friend/romantic relationships, is motivated to have friends/relationship, and makes efforts to seek out friends/relationship.
- 2 = Moderate deficit:** SOMEWHAT INTERESTED in friend/romantic relationships and considers them somewhat important. May occasionally miss close connections with friends/partner and is somewhat motivated to have friends/partner. Notable deficit in initiating and persistently engaging in interactions; discussion of good and bad times is limited. Interactions with friends/romantic partner may occur but are largely superficial and participation is best characterized as “going through the motions”; interactions are initiated by others with mostly passive involvement of the person. If no friend/romantic relationships, is only somewhat motivated to have friends/partner and rarely if ever seeks out friends/partner.
- 3 = Moderately severe deficit:** LITTLE INTEREST in friend/romantic relationships (could “take it or leave it”) and does not describe friends/partner as important. Describes hardly any motivation to have friendships, and would just as soon be alone. Contact and engagement with others is superficial and passive with almost all initiation and efforts to engage coming from others.
- 4 = Severe deficit:** NO INTEREST in friend/romantic relationships and does not consider them at all important. Prefers to be alone and is not at all motivated to have friends/partner.

### 2.2 Additional Considerations

1. A friend may be someone the person spends time with, someone the person considers a friend, or someone the person can rely on or count on.
2. It is important to make sure that interest in romantic partners refers to interest in a close personal relationship rather than merely interest in a partner for sex and physical gratification.
3. If a person mentions just one friend, but values this very much and is in close contact and shares good times and bad with the friend, the person can get a rating of 0.
4. Treatment staff members are not counted as friends (even if person considers them as such).
5. Co-workers or other participants in treatment or research programs (i.e., other patients) can count as friends, but adequate probing needs to establish the nature of the relationships and that these are not merely passive interactions.

### **2.3 Illustrative Vignettes**

0. *No impairment:* Person reports that he thinks friendships/romantic relationships are “great to have” and that he has “very close buddies” in the VA that are “good friends” whom he trusts. Describes frequent informal contacts (seeing each other during appointments) as well as weekly organized card games during which they joke and chat about their families. Person regularly initiates these and wishes he could see his friends/romantic partner more often. Person notes that he would “really miss them” if he did not have current friends. Person reports that he has dates with his girlfriend two nights in the past week. He reports that this relationship is important to him and that he initiates almost nightly phone calls with her and that he arranges activities for their dates.
1. *Mild deficit:* Person describes having a friend that lives in his group home and describes this as “a good support” to have when he is upset. They see each other frequently and discuss some issues but person also notes that these conversations usually focus on more superficial topics including their shared interest in sports. He is motivated to see his friend, but does not always seek him out.
2. *Moderate deficit:* Person has no one that she considers a friend but would like to have someone because “friends are good to have”. Describes missing having a friend but also says “it’s not a big deal”. Says that she has tried to make friends but can’t recall any specific examples of what she has done. She says that she is not dating anyone currently but would like to meet someone. However, she notes that she has not done anything in the past week to try to meet someone to date.
3. *Moderately severe deficit:* Person describes “friends” in neighborhood but these are actually casual encounters that involve “saying hello” or briefly commenting about the weather. Person has no contacts outside of these accidental encounters and expresses no interest in establishing closer ties with neighbors (“I like it the way things are”). When asked if he would like to make deeper friendships he shrugs and notes that would be “okay” but that he is also “just fine on his own”. He notes that he would like to have a partner to date but also says that he does not think this would be worth the “trouble.” Person has made no efforts to establish friendships or romantic relationships.
4. *Severe deficit:* Person has no friend/romantic relationships and notes that he does not think that friends are important and prefers to be alone. Reports not missing having a friend (“I don’t even think about that”) and has no interest in making friends or becoming romantically involved with anyone.

## ITEM 3: FREQUENCY OF PLEASURABLE SOCIAL ACTIVITIES – PAST WEEK

### 3.1 Definition

This item measures the frequency of enjoyable or pleasurable social experiences over the past week – i.e., consummatory pleasure.

### 3.2 Basis for Ratings

Ratings for past week pleasure are based on a person's report of their experiences of pleasure in social interactions over the past week. The domains of relationships (family, spouse/partner, friend, romantic) listed above for items 1 and 2 are considered here as well as any pleasurable experiences from other social interactions. **Frequency ratings of past week social pleasure are based on participants' description of the number of days that they had pleasure experiences.**

### 3.3 Rating Anchor Points

- 0 = No impairment:** Pleasure experienced daily.
- 1 = Mild deficit:** Pleasure experienced 5-6 days.
- 2 = Moderate deficit:** Pleasure experienced 3-4 days.
- 3 = Moderately severe deficit:** Pleasure experienced 1-2 days.
- 4 = Severe deficit:** No pleasure reported.

### 3.4. Additional Considerations

1. The rater should not confuse the frequency of social interactions with frequency of pleasure experienced. Some people may report frequent social interactions, and the desire for social interactions, but it may be that many of the specific events experienced in the last week were actually stressful or unpleasant rather than pleasurable.
2. The time frame involves social interactions that took place during the past week. Although the ratings are intended to assess frequency of in-the-moment pleasure, that is, pleasure experienced when with other people, the interview probes necessarily require the person to think back over the past week and thus remembering pleasurable activities and interactions will be necessary to answer the interview questions.
3. Interviewers should use follow-up probes for frequency of pleasure items to assess for nature of enjoyment and not just accept a "yes" answer (e.g., "Tell me what you enjoyed about it" or "What did you find pleasurable?"). Overall the goal is to have the person talk about the pleasure in more detail to ensure credibility of "yes" response and that experience was indeed pleasurable. **Raters should only rate those instances where there is some elaboration on the pleasure experienced.** These probes will also allow the rater to determine if the pleasure was derived from the social interaction and not some other aspect of the event (enjoying the food at a meal with relatives rather than enjoying the relatives). The word *pleasure* does not need to be used; *enjoy*, *fun*, *like*, or other synonyms may be used. The term pleasure is considered by some to refer only to sexual pleasure.
4. If person reports a number of different social activities that are pleasurable, it may be unclear if these activities overlapped on the same day(s) or are spread out across multiple days. This determination is important to make the frequency ratings, which are based on frequency of days in which pleasurable social interactions took place, not the total frequency of pleasurable social

encounters. After obtaining specific information the rater should ask on how many days these events occurred. If there are a number of social experiences, the rater may find it easier to ask for clarification as to whether there were any days when the person had *no* pleasurable activities.

5. Ratings are based on ANY people that the interviewee mentions in response to the probe question (regardless of the “quality” of the interaction) – i.e., relevant social interactions are not restricted just to family, spouses, partners, friends, or romantic partners mentioned during items 1 and 2 of the CAINS. Treatment providers may be included in this rating.

### **3.5 Illustrative Vignettes**

0. *No impairment:* Person reports almost daily phone calls with parents that are consistently enjoyable. She sees her romantic partner several times during the week and enjoys each of these events. Reports pleasurable social activities with her church group four days in the past week. Overall, across these activities she reports a pleasurable social encounter every day in the past week.
1. *Mild deficit:* Person reports that he has had pleasurable social activities with his girlfriend regularly in the past week with the exception of when she was out town over the weekend. During that time he was alone and had no other social activities. He experienced pleasure from social activities during 5 of the last 7 days.
2. *Moderate deficit:* Person reports having two pleasurable dinners with his mother (during which he enjoyed her company and talking with her) and visiting with his neighbor on another night. Other than these three evenings, he had no other pleasurable social activities.
3. *Moderately severe deficit:* Person had one social interaction when her brother stopped by to take her food shopping. She enjoyed this visit. She reports no other pleasurable social activities.
4. *Severe deficit:* Although person reports several social interactions, all of these were described as stressful and upsetting. Person reports no pleasurable social activities in last week.

## **ITEM 4: FREQUENCY OF EXPECTED PLEASURABLE SOCIAL ACTIVITIES – NEXT WEEK**

### **4.1 Definition**

This item measures the frequency of enjoyable or pleasurable social experiences expected over the next week – i.e., anticipatory pleasure. The domains of relationships (family, spouse/partner, friend, romantic) listed above for items 1 and 2 are considered here as well as pleasurable experiences from any other social interactions.

### **4.2 Basis for Ratings**

Ratings for expected pleasure are based on a person’s report of their expected frequency of pleasure from social experiences in the coming week. This relates specifically to predicted future pleasure (rather than pleasure that is currently experienced as one anticipates future experience). Since the ratings are intended to assess capacity for predicting/expecting pleasure, the interview probes necessarily require the person to imagine the future. The interview probes are purposefully open-ended to assess capacity to generate anticipated pleasurable activities. **Frequency ratings are**

based on the number of expected experiences reported, regardless of days or types of experiences.

#### **4.3 Rating Anchor Points**

- 0 = No impairment:** Expecting MANY (7 or more) pleasurable experiences.
- 1 = Mild deficit:** Expecting enjoyment from SEVERAL (5-6) pleasurable experiences.
- 2 = Moderate deficit:** Expecting enjoyment from a FEW (3-4) pleasurable experiences.
- 3 = Moderately severe deficit:** Expecting a COUPLE (1-2) pleasurable experiences.
- 4 = Severe deficit:** Expecting NO pleasurable experiences.

#### **4.4 Additional Considerations**

1. There is no requirement that a person expects to enjoy activities on all days of the week; rather the focus here is that they expect to experience a number of pleasurable activities, whether each day or on just a few days. In other words, the number of expected enjoyable activities is counted without consideration of how many days the person expects to experience these on.
2. The number of activities is counted, regardless of diversity of type of activities. So, for example, if a person looks forward to talking to a family member twice a week, these are 2 activities.
3. This section should be administered even if there are no relevant experiences of pleasure during the past week. That is, just because a person reported no pleasure last week, they may nonetheless expect pleasure during the next week.
4. Ratings are based on ANY people that the interviewee mentions in response to the probe question – i.e., relevant social interactions are not restricted just to family, spouses, partners, friends, or romantic partners mentioned during items 1 and 2 of the CAINS. Treatment providers may be included in this rating.

#### **4.5 Illustrative Vignettes**

0. *No impairment:* Person looks forward to daily pleasurable activities with her romantic partner including daily walks. Reports expected pleasure from two upcoming calls with her parents and brother.
1. *Mild deficit:* Person expects to enjoy visiting with his neighbor on three evenings in the next week. He has two dates planned with his girlfriend that he thinks will be pleasurable.
2. *Moderate deficit:* Person expects to enjoy his one weekly phone call with his mother. He reports expecting to enjoy a dinner with his brother. He also expects to enjoy visiting his friend for coffee once this week.
3. *Moderately severe deficit:* Person only expects to enjoy a dinner with her parents. She has no other social activities that she expects will be enjoyable.
4. *Severe deficit:* Person does not expect to have any pleasurable social activities.



## II. WORK & SCHOOL: Motivation & Pleasure

### ITEM 5: MOTIVATION FOR WORK AND SCHOOL ACTIVITIES

#### 5.1 Definition

Impairment in motivation for work and school is defined in terms of decreased interest in, desire for, and actual engagement in productive vocation-related or school activities. The item rating is based on 1) internal experience of motivation and 2) actual initiation and persistence of active engagement in work, school, or volunteer activities.

#### 5.2 Activities Considered in this Rating

The following types of activities can be considered for this rating:

- Paid employment (full- or part-time work, or work-seeking activities)
- Volunteer work (outside of the context of treatment programs, or work-seeking activities)
- Educational activities (outside of the context of treatment programs, or education-seeking activities)
- Participation in specialized work rehabilitation programs (or work rehabilitation seeking activities)

#### 5.3 Basis for Ratings

Interview prompts are intended to elicit discussion about internal experience (i.e., level of motivation to engage in productive work or school activities), frequency of initiation of such activities, and persistence in actively engaging in these activities. Vocational/educational motivation ratings are intended to emphasize the person's internal motivation to engage in goal-directed activities.

Accordingly, people may have limited behavioral manifestations of productive vocational or school activities, but still receive a relatively low rating on this item if they experience interest and motivation to engage in goal-directed activities.

#### 5.4 Rating Anchor Points

- 0 = No impairment:** Person is VERY MOTIVATED to seek out work or school, or new opportunities in work or school; initiates and persists in work, school, or job-seeking on a regular basis. Well within normal limits.
- 1 = Mild deficit:** Person is GENERALLY MOTIVATED to seek out work or school or new opportunities in work or school; a mild deficit in initiating and persisting; may report instances of initiating, but with moderate persistence.
- 2= Moderate deficit:** Person is SOMEWHAT MOTIVATED to seek out work or school or new opportunities in work or school; notable deficit in initiating; may have initiated activities, but needed reminders on multiple occasions, and/or not initiated any new activities, and/or not persisted for very long.
- 3 = Moderately severe deficit:** Person is only SLIGHTLY MOTIVATED to seek out work or school or new opportunities in work or school; significant deficit in initiating; may have needed constant reminders, and/or initiated a few activities; did not persist for very long.
- 4 = Severe deficit:** Person is NOT AT ALL MOTIVATED to seek out work / school; nearly total lack of initiation and persistence in work, school, or job seeking.

### **5.5. Additional Considerations**

1. For people who report high levels of interest and motivation yet demonstrate no actual work/school/volunteer or work-seeking behavior: a rating of “2” is the least impaired rating such a person can receive (i.e., 0 or 1 cannot be assigned).
2. The type of activity that counts as “work” or vocational activity is something that requires some semblance of a set schedule, accountability, and reliability to do the work. Thus, taking cans to a recycling center or donating plasma would not count as this is rather ill-defined, not requiring a set schedule, and is on the periphery of what would be considered employment. Note, however, that this pertains primarily to western cultures and what constitutes work and vocational activity may vary in different cultures and countries.
3. People who report participating in many activities because they are required to (as in, for example, a work rehabilitation program) but do not initiate these activities may receive a more impaired rating on motivation for work & school activities than people who are less active but initiate a small number of activities on their own.
4. “Seeking out” new experiences within a job is not the only evidence of motivated behavior (e.g., many will not seek out new opportunities in an established job) – seeking out is only one potential source for ratings. Persistence in active engagement in work activities is also considered.
5. If a person is only working part time, they may still receive a “0”.
6. If all work requirements are accomplished (with no deficits or difficulties) but the individual nonetheless reports very low motivation, then a rating of 1 or 2 would be appropriate.
7. With respect to whether therapeutic activities can count as school, only engagement in vocational rehabilitation programs is relevant. No other type of therapeutic activity, group, or class is relevant.
8. If a person requires reminders to perform vocational activities, this could be for motivational or cognitive reasons. Be sure to ask probe questions to ascertain this.

### **5.6. Illustrative Vignettes**

0. *No impairment:* Person expresses a strong motivation for work/school achievement. Has a full-time or part time competitive paid job, or enrolled in school, and views this as very important. If unemployed, spends much of her time engaged in job search related activities. Completes all work/school related tasks with a high level of enthusiasm and commitment.
1. *Mild deficit:* Person expresses consistent interest and motivation to engage in work or school tasks, along with actual engagement in work or school activities. Completes most work/school related tasks, but occasionally lets something slide. If on disability, engages in volunteer work, under-the-table work, or vocational rehab activities with reasonably consistent completion of job expectations.
2. *Moderate deficit:* Person believes that work/school is important to get by, but is not particularly interested in these activities. May be involved in equivalent full- or part-time work/school activities, but is not particularly concerned about letting things slide. Takes few steps to seek out more interesting activities.

3. *Moderately severe deficit:* Person expresses minimal interest in work/school activities and low motivation to engage in these activities. If working/going to school, is typically just “going through the motions” and requires prompting from others. Has little concern about fulfilling responsibilities – may often fail to fulfill them. May require frequent reminders or encouragement to engage in these activities. If unemployed/out of school, makes superficial efforts to seek work/school activities.
4. *Severe deficit:* No interest in working, going to school, or engaging in vocational rehab related activities. Makes essentially no effort to initiate these activities. If compelled by others to engage in these activities, rarely if ever follows through on engaging in and completing them.

## **ITEM 6: FREQUENCY OF EXPECTED PLEASURABLE WORK & SCHOOL ACTIVITIES - NEXT WEEK**

### **6.1 Definition**

This item measures the frequency of enjoyable or pleasurable experiences expected during vocation-related activities over the next week – i.e., anticipatory pleasure.

Note that the rating of pleasure in the work and school domain is limited to *expected* future pleasure. This differs from ratings in the other MAP domains (i.e., social and recreation) that include both past and expected ratings of pleasure. Past week ratings of pleasure from work and school are not included in the CAINS based on findings that ratings from a vocational past week pleasure item were often missing as many participants are not in a relevant role (work, school, or volunteer) and thus could not report on past experienced pleasure (see references). Moreover, past week ratings were strongly correlated with *expected* pleasure, indicating that the expected pleasure item could capture work and school related pleasure. Thus, the CAINS assesses only expected pleasure for work and school activities.

### **6.2 Basis for Ratings**

Ratings for expected pleasure are based on a person’s report of their expected frequency of pleasure from work or school experiences in the coming week. More specifically, these ratings are based on the person’s description of how often they expect to experience work-related pleasure in the next week. This relates specifically to predicted/expected pleasure rather than pleasure that is currently experienced as one anticipates future experience. Since the ratings are intended to assess capacity for predicting/expecting pleasure, the interview probes necessarily require the person to imagine the future. Like other aspects of the interview, the interview probes begin open-ended with some “cues” about work experiences. **Frequency ratings are based on the number of expected experiences reported, regardless of days or types of experiences.**

### **6.3 Rating Anchor Points**

- 0 = No impairment:** Expecting MANY (7 or more) pleasurable experiences.
- 1 = Mild deficit:** Expecting enjoyment from SEVERAL (5-6) pleasurable experiences.
- 2 = Moderate deficit:** Expecting enjoyment from a FEW (3-4) pleasurable experiences.
- 3 = Moderately severe deficit:** Expecting a COUPLE (1-2) pleasurable experiences.
- 4 = Severe deficit:** Expecting NO pleasurable experiences.

#### **6.4. Illustrative Vignettes**

0. *No impairment:* Person expects to enjoy attending project meetings held each morning (5x), four individual meetings with co-workers, and attending two training classes to learn a new computer program, and working with customers each day.
1. *Mild deficit:* Person expects to enjoy meeting with someone he supervises two times and looking for new places to send his resume two times.
2. *Moderate deficit:* Person expects to enjoy going to the library to research job opportunities twice next week; also has one interview set up that she is looking forward to.
3. *Moderately severe deficit:* Person expects to enjoy attending vocational training classes two days next week.
4. *Severe deficit:* Does not expect any pleasurable experiences.

### **III. RECREATION: Motivation & Pleasure**

#### **ITEM 7: MOTIVATION FOR RECREATIONAL ACTIVITIES**

##### **7.1 Definition**

Impairment in motivation for hobbies and recreation is defined in terms of decreased motivation for, interest in, desire for, and actual engagement in hobbies or recreational activities. The item rating is based on 1) internal experience of motivation and 2) actual initiation and persistence of active engagement in hobbies or recreational activities.

##### **7.2 Activities Considered in this Rating**

Any self-defined type of hobby or recreational activity is considered for this rating. That is, this rating covers those activities that a person does in his or her free time, and can include things such as reading, watching TV, playing sports, watching/listening to sports, playing video games, playing music, listening to music, computer, exercise, going to church, playing with pets, working on games, crafts, etc.

##### **7.3 Basis for Ratings**

Interview prompts are intended to elicit discussion about internal experience (i.e., level of motivation to engage in leisure time activities), frequency of initiation of such activities, and persistence in actively engaging in these activities. Recreation motivation ratings are intended to emphasize the person's internal motivation to engage in goal-directed activities. Accordingly, people may have limited behavioral manifestations of recreational activities, but still receive a relatively low rating on this item if they experience interest in and motivation to engage in goal-directed activities.

## **7.4 Rating Anchor Points**

- 0 = No impairment:** Person is VERY MOTIVATED to seek out hobbies and recreational activities; initiates and persists in hobbies and recreational activities on a regular basis, well within normal limits.
- 1 = Mild deficit:** Person is GENERALLY MOTIVATED to seek out hobbies and recreational activities; a mild deficit in initiating and persisting; may report initiating hobbies, but with moderate persistence.
- 2 = Moderate deficit:** Person is SOMEWHAT MOTIVATED to seek out hobbies and recreational activities; notable deficit in initiating; may have initiated some activities and/or not persisted for very long. Others were somewhat more likely to initiate hobbies or activities.
- 3 = Moderately severe deficit:** Person is only SLIGHTLY MOTIVATED to seek out hobbies and recreational activities; significant deficit in initiating and persisting; may have initiated a few activities and not persisted for very long. Others were much more likely to initiate hobbies or prompt initiation.
- 4 = Severe deficit:** Person is NOT AT ALL MOTIVATED to seek out hobbies and recreational activities; nearly total lack of initiation and persistence in hobbies or recreational activities.

## **7.5. Additional Considerations**

1. Regular initiation and persistence in obtaining/using alcohol and drugs is not considered purposeful hobbies or recreation.
2. Passively watching TV or listening to the radio (e.g., “whatever happens to be on”) is not considered a motivated behavior.
3. If a person reports having just one hobby or activity but is very motivated to do it and shows initiation and persistence, a rating of 0 is warranted.
4. Relevant recreational activities discussed in the items covering social activities may be counted here as well.

## **7.6. Illustrative Vignettes**

0. *No impairment:* Person expresses a strong motivation for and interest in hobbies. Plays video games every day, watches the news every day at 5pm, and listens to music every day. Initiates and persists in these activities with no need for reminders or other prompts.
1. *Mild deficit:* Person expresses generally strong motivation for walking every day, listening to talk radio, and working on word puzzles. There were only a couple of times over the past week when the activity was started but put aside for lack of continuing interest.
2. *Moderate deficit:* Person reports having a good deal of interest in playing cards with others in the past week, but did not do so. Person reports being motivated to listen to radio, but only turned it on one time during the week. Usually motivated to attend church two times a week, but only went once at the prompting of his mother.
3. *Moderately severe deficit:* Person expresses minimal interest in hobbies and said she did not have much motivation to engage in these activities in the past week. She did not feel like playing

the guitar or watching her favorite daytime soap operas. She turned the TV on a couple of times, but she did not watch the entire program. She didn't care to listen to the radio or go window-shopping as she usually does most Saturdays. She looked at new websites with her sister but only because her sister asked her to do so.

4. *Severe deficit:* Person reports no motivation to do anything during his free time other than just lying around or sleeping. He is usually motivated to talk to his neighbor on the porch and watch whatever is on ESPN, but did not feel motivated to do these things in the past week. He said hello to his neighbor when he left the house for a doctor appointment, but otherwise did not go outside to sit on the porch. He did not watch any sports, even though his family asked him to do so.

## ITEM 8: FREQUENCY OF PLEASURABLE RECREATIONAL ACTIVITIES – PAST WEEK

### 8.1 Definition

This item measures the frequency of enjoyable or pleasurable experiences during hobbies or recreational activities over the past week – i.e., consummatory pleasure.

### 8.2 Basis for Ratings

Ratings for frequency of pleasurable recreational activities – past week are based on a person's reports of their experiences of pleasure from hobbies or recreational, leisure-time activities over the past week. Unlike frequency of pleasurable social or work-related activities, **this item requires a diversity of activities as well as daily experiences of pleasurable activities to receive a score of 0.** That is, the person must report more than one pleasurable experience daily to receive a score of 0. Watching TV every day, even if actively engaging in this activity, would not be sufficient to warrant a rating of 0. Thus, frequency ratings are based on how many distinct and different pleasure experiences the person describes and the number of days that these are experienced as pleasurable. As with all pleasure ratings, it is important to probe for pleasure or enjoyment – that is, be sure to follow up to ask what about a particular activity was enjoyable.

### 8.3 Rating Anchor Points

- 0 = No impairment:** At least A FEW (3) different types of pleasurable experiences, experienced daily.
- 1 = Mild deficit:** At least A FEW (3) different types of pleasurable experiences, experienced more days than not.
- 2 = Moderate deficit:** 1 or 2 different types of pleasurable experiences, experienced more days than not.
- 3 = Moderately severe deficit:** 1 type of pleasurable experience, experienced on just a few days.
- 4 = Severe deficit:** No pleasurable experiences.

### 8.4 Additional Considerations

The rater must count the diversity of activities as well as the days that the activities were enjoyable. To receive a rating of 1, a person must report a FEW different activities (i.e., 3 or more different hobbies or recreational activities) that were enjoyable more days than not (i.e., 3 to 4 days). To receive a rating of 0, a person must report a FEW different activities that were enjoyable every day.

### **8.5. Illustrative Vignettes**

0. *No impairment:* Person reported enjoyment from watching TV and listening to music every day in past week. She enjoyed going for a walk on three days. She enjoyed playing with her cat every day, and she enjoyed doing a word search puzzle every day.
1. *Mild deficit:* Person reported enjoyment from playing video games every day. He enjoyed watching movies on four days, and watching sports on three days. He enjoyed riding his bike on five days, and playing basketball on 1 day.
2. *Moderate deficit:* Person reported enjoying watching the news on TV every day and having a meal at a restaurant with his girlfriend on Friday. No other pleasurable experiences reported.
3. *Moderately severe deficit:* Person reported enjoying seeing his mother on Saturday and listening to the radio on two days.
4. *Severe deficit:* Person did not report any pleasurable experiences in the past week.

### **ITEM 9: FREQUENCY OF EXPECTED PLEASURABLE RECREATIONAL ACTIVITIES – NEXT WEEK**

#### **9.1 Definition**

This item measures the frequency of enjoyable or pleasurable experiences expected during hobbies or recreational activities over the next week – i.e., anticipatory pleasure.

#### **9.2 Basis for Ratings**

Ratings for future week pleasure are based on a person's report of their expected frequency of pleasure from leisure time hobbies or recreational activities in the coming week. This relates specifically to predicted/expected pleasure rather than pleasure that is currently experienced as one anticipates future experience. Since the ratings are intended to assess capacity for predicting/expecting pleasure, the interview probes necessarily require the person to imagine the future. Like other aspects of the interview, the interview probes begin open-ended with some "cues" about hobbies and recreational activities.

#### **9.3 Rating Anchor Points**

- 0 = No impairment:** Expecting MANY (7 or more) pleasurable experiences.
- 1 = Mild deficit:** Expecting enjoyment from SEVERAL (5-6) pleasurable experiences.
- 2 = Moderate deficit:** Expecting enjoyment from a FEW (3-4) pleasurable experiences.
- 3 = Moderately severe deficit:** Expecting a COUPLE (1-2) pleasurable experiences.
- 4 = Severe deficit:** Expecting NO pleasurable experiences.

#### **9.4 Additional Considerations**

1. This section should be administered even if there are no relevant experiences of pleasure during the past week.
2. The number of activities is counted, regardless of diversity of type of activities.

### **9.5. Illustrative Vignettes**

0. *No impairment:* Person reports expecting to enjoy watching TV every day, playing video games every day, going out to lunch three times, going for a walk, seeing a movie on Friday, and going to the gym.
1. *Mild deficit:* Person reports expecting to enjoy video games two times, playing on the internet once, going to the skate park once, and going to Game Stop to see if new games have come in once.
2. *Moderate deficit:* Person reports expecting to enjoy TV, the radio, and drawing in the next week, one time each.
3. *Moderately severe deficit:* Person reports expecting to enjoy watching TV and drawing in the next week, one time each.
4. *Severe deficit:* Person reports no expected pleasurable recreational activities for the next week.



## EXPRESSION SCALE

### IV. EXPRESSION

#### Items 10 – 13: Facial Expression, Vocal Expression, Expressive Gestures, and Quantity of Speech

##### General Definition

Impairment in expression is defined in terms of decreased observed expression **of emotion** and reactivity. The item rating is based on observed behavior of spontaneous expression of emotion during the entire interview. The dimensions of expression of emotion that should be observed and rated independently include: facial expression, vocal expression, and expressive gestures. Quantity of speech, i.e., the amount of speech produced throughout the interview, is also rated.

##### General Basis for Ratings

Ratings are based on the observed person's capacity to express emotions during the entire interview. Both the frequency and intensity of expression are considered in the ratings. Noting facial expression, vocal expression, expressive gestures, and quantity of speech, as the person responds to all sections of the interview is essential for rating at the end of the interview.

#### ITEM 10: FACIAL EXPRESSION

##### 10.1 Basis for Ratings

When making the facial expression rating, consider facial movements across all parts of the face, including in the eyes (e.g., raised brows), mouth (smiling or grimacing), and mid-face (e.g., wrinkled nose when disgusted).

##### 10.2 Rating Anchor Points

- 0 = No impairment:** WITHIN NORMAL LIMITS; frequent expressions throughout the interview.
- 1 = Mild deficit:** MILD DECREASE in the frequency of facial expressions, with limited facial expressions during a few parts of the interview.
- 2 = Moderate deficit:** NOTABLE DECREASE in the frequency of facial expressions, with diminished facial expressions during several parts of the interview.
- 3 = Moderately severe deficit:** SIGNIFICANT LACK of facial expressions, with only a few changes in facial expression throughout most of the interview.
- 4 = Severe deficit:** NEARLY TOTAL LACK of facial expressions throughout the interview.

### **10.3 Additional Considerations**

Observe changes and movements in the entire face when the person is talking about emotional experiences. Note that the content of what the person says might not be congruent with the facial expression.

### **10.4 Illustrative Vignettes**

0. *No impairment:* A full range of facial expressions is displayed when recounting experiences throughout the interview. There are frequent changes in facial expression that reflect the topic of the conversation, smiling brightly both with mouth and eyes when describing a funny movie, a pleasurable family encounter, and a trip she looks forward to next week. She frowns when describing her efforts to get a job and her lips tighten.
1. *Mild deficit:* The person is overall quite expressive during the interview and facial expressions are generally evident. However, the intensity of the expression is decreased during a few parts of the interview when talking about pleasurable social activities with friends in the past week. The smiles are less pronounced and the frowns are less noticeable.
2. *Moderate deficit:* The person shows overall decreased frequency and intensity of facial expressions during several parts of the interview. This is evident when talking about pleasurable social activity in the past week when going to a party, recreational activity watching a comedy on TV and expected trip next week. Smiles are faint during several parts of the interview and facial expressions are clearly decreased.
3. *Moderately severe deficit:* The person has limited facial expressions when describing engagement with family, social and recreational activities. Barely noticeable movements of the mouth appear infrequently.
4. *Severe deficit:* Throughout the interview the person does not change his facial expression.

## ITEM 11: VOCAL EXPRESSION

### 11.1 Basis for Ratings

This item refers to prosodic features of the voice. This item reflects changes in tone during the course of speech. Speech rate, amount, or content of speech is not assessed.

### 11.2 Rating Anchor Points

- 0 = No impairment:** WITHIN NORMAL LIMITS. Normal variation in vocal intonation across interview. Speech is expressive and animated.
- 1 = Mild deficit:** MILD DECREASE in vocal intonation. Variation in intonation occurs with a limited intonation during a few parts of the interview.
- 2 = Moderate deficit:** NOTABLE DECREASE in vocal intonation. Diminished intonation during several parts of the interview. Much of speech is lacking variability in intonation but prosodic changes occur in several parts of the interview.
- 3 = Moderately severe deficit:** SIGNIFICANT LACK of vocal intonation with only a few changes in intonation throughout most of the interview. Most of speech is flat and lacking variability, only isolated instance of prosodic change.
- 4 = Severe deficit:** NEARLY TOTAL LACK OF change in vocal intonation with characteristic flat or monotone speech throughout the interview.

### 11.3 Illustrative Vignettes

- 0. *No impairment:* Prosodic speech with ample variation in intonation when providing information throughout the interview. Speech is animated and lively when describing close relationships with family and friends, enjoyment of recreational activities, both in the past week and expected in the next week.
- 1. *Mild deficit:* The person's speech is overall quite expressive during the interview. However, the variability in intonation is decreased during a few parts of the interview when talking about pleasurable social activities with family and friends in the past week. The voice shows fewer reflections and is more monotonous.
- 2. *Moderate deficit:* The person shows overall decreased variability in vocal expressions during several parts of the interview. The voice is monotonous at times when talking about pleasurable social activity in the past week such as visiting a friend, describing watching a comedy on TV and an expected exciting trip next week.
- 3. *Moderately severe deficit:* The person has limited vocal expressions when describing engagement with family, social and recreational activities. Barely noticeable change in voice intensity and prosody is mostly monotonous.
- 4. *Severe deficit:* The person has few if any changes in vocal expressions when describing engagement with family, social and recreational activities. No noticeable change in voice intensity and prosody is monotonous.

## ITEM 12: EXPRESSIVE GESTURES

### 12.1 Basis for Ratings

Expressive gestures are used to emphasize what is communicated verbally through gestures made with the hands, head (nodding), shoulders (shrugging), and trunk (leaning forward, leaning back).

### 12.2 Rating Anchor Points

- 0 = No impairment:** WITHIN NORMAL LIMITS; uses frequent gestures throughout the interview.
- 1 = Mild deficit:** MILD DECREASE in the frequency of expressive gestures, with limited gestures in a few parts of the interview.
- 2 = Moderate deficit:** NOTABLE DECREASE in the frequency of expressive gestures, with lack of gestures during several parts of the interview.
- 3 = Moderately severe deficit:** SIGNIFICANT LACK of expressive gestures, with only a few gestures throughout most of the interview.
- 4 = Severe deficit:** NEARLY TOTAL LACK of expressive gestures.

### 12.3 Additional Considerations

This item is based on frequency of gestures, regardless of diversity of different types of gestures

### 12.4 Illustrative Vignettes

0. *No impairment:* Throughout the interview, the person relaxes in the chair, motions with his hands frequently, and nods in agreement, even throwing his head back when describing pleasurable activities and moving forward to emphasize a point.
1. *Mild deficit:* When describing a pleasurable activities with her family, motivated and expected pleasurable work activities and hobbies, the person moves her hands and shakes her head but the frequency is mildly decreased and her body shows more limited expressive movements.
2. *Moderate deficit:* Throughout much of the discussion of social, school, and recreational activities, the person keeps his head tilted, slightly moves his hands only a few times and his body posture changes little during the conversation.
3. *Moderately severe deficit:* Throughout the interview, the person's hands and body remain still and there is slight shrugging of her shoulders upon probing about how she felt. This occurs only a handful of times throughout the entire interview.
4. *Severe deficit:* There were no almost no changes in hands, head, arms or other body gestures while recounting any activities.

## ITEM 13: QUANTITY OF SPEECH

### 13.1 Basis for Ratings

This item refers to the quantity of words spoken. Other speech abnormalities, such as disorganization, neologisms, or psychotic content are not rated here. For instance, a disorganized person may produce a large quantity of speech and have a low (normal) score on this item.

### 13.2 Rating Anchor Points

- 0 = No impairment:** NORMAL AMOUNT of speech throughout the interview. Replies provide sufficient information with frequent spontaneous elaboration.
- 1 = Mild deficit:** MILD DECREASE in the quantity of speech, with brief responses during a few parts of the interview.
- 2 = Moderate deficit:** NOTABLE DECREASE in speech output, with brief responses during several parts of the interview.
- 3 = Moderately severe deficit:** SIGNIFICANT LACK of speech, with very brief answers (only several words) in responses throughout most of the interview.
- 4 = Severe deficit:** All or nearly all replies are one or two words throughout the entire interview.

### 13.3 Illustrative Vignettes

0. *No impairment:* The person provides detailed responses during the interview. Spontaneously elaborates on a social encounter or event in the past week, detailing who was present offering a full description of the event. Lengthy and informative narratives are easily elicited in response to probes.
1. *Mild deficit:* The person is generally responsive conveying requested information but does not elaborate spontaneously when describing a recreational activity of going to a movie or reading a book in the past week. Responses to follow-up probes are brief during a few parts of the interview.
2. *Moderate deficit:* The person provides terse responses during parts of the interview and does not elaborate upon probing.
3. *Moderately severe deficit:* Responses to most questions are very brief and probes do not elicit further details. Answers consist of single words (e.g., yes, no) or very brief statements (e.g., It was ok, I was fine).
4. *Severe deficit:* The person clearly uses the smallest number of words possible for each response, (such as yes, no, maybe, I guess, don't know) to all parts of the interview.

**CLINICAL ASSESSMENT INTERVIEW FOR NEGATIVE SYMPTOMS (CAINS)**

Participant ID: \_\_\_\_\_ Date: \_\_\_\_\_ Rater: \_\_\_\_\_

**I. MOTIVATION AND PLEASURE (MAP): SOCIAL ITEMS**

1. Motivation for Close Family/Spouse/Partner Relationships: **Item 1.** \_\_\_\_\_
2. Motivation for Close Friendships/Romantic Relationships: **Item 2.** \_\_\_\_\_
3. Frequency of Pleasurable Social Activities - Past Week: **Item 3.** \_\_\_\_\_
4. Frequency of Expected Pleasurable Social Activities – Next Week: **Item 4.** \_\_\_\_\_

**II. MOTIVATION AND PLEASURE (MAP): WORK AND SCHOOL ITEMS**

5. Motivation for Work and School Activities: **Item 5.** \_\_\_\_\_
6. Expected Pleasurable Work and School Activities – Next Week: **Item 6.** \_\_\_\_\_

**III. MOTIVATION AND PLEASURE (MAP): RECREATION ITEMS**

7. Motivation for Recreational Activities: **Item 7.** \_\_\_\_\_
8. Frequency of Pleasurable Recreational Activities - Past Week: **Item 8.** \_\_\_\_\_
9. Frequency of Expected Pleasure from Recreational Activities – Next Week: **Item 9.** \_\_\_\_\_

<b>MAP total score:</b> _____
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**IV. EXPRESSION (EXP) ITEMS**

10. Facial Expression: **Item 10.** \_\_\_\_\_
11. Vocal Expression: **Item 11.** \_\_\_\_\_
12. Expressive Gestures: **Item 12.** \_\_\_\_\_
13. Quantity of Speech **Item 13.** \_\_\_\_\_

<b>EXP total score:</b> _____
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