

DIGS 1.0
Training Manual

DIAGNOSTIC INTERVIEW FOR GENETIC STUDIES

DIGS 1.0 TRAINING MANUAL

NIMH MOLECULAR GENETICS INITIATIVE

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INTRODUCTION TO DIGS TRAINING MANUAL

ADAPTED FROM "INSTRUCTIONS FOR USE OF THE SCHEDULE
FOR AFFECTIVE DISORDERS AND SCHIZOPHRENIA, REGULAR
VERSION AND LIFE-TIME VERSION*
(SADS AND SADS-L)," by J. Endicott et al., June 1977

PURPOSE

The purpose of the Diagnostic Interview for Genetic Studies (DIGS) is to record information regarding a subject's functioning and psychopathology with primary emphasis on information relevant to the study of the affective disorders and schizophrenia. The interview also covers a wide variety of symptoms associated with many other conditions such as alcoholism, drug abuse, and personality disorders. The organization of the interview and the item coverage are designed to elicit information necessary for making diagnoses based on multiple diagnostic criteria. The interview is suitable for use in studies of probands and their relatives. It allows for assessment of current and past episodes of illness. However, it includes only a partial examination of the mental status (e.g., Modified Mini-Mental Status Exam).

PERSONNEL AND TRAINING

The most suitable personnel for administering this instrument are individuals with experience in interviewing and making judgments about manifest psychopathology. Although most of the items are defined to ensure uniform criteria for all raters, the types of judgments called for require more knowledge of psychiatric concepts than do many of the more commonly used observational scales.

The DIGS and the relevant diagnostic criteria¹ should be studied in detail before use so that the interviewer understands the proper procedures for using the instrument and the criteria for judging the items, and knows the information needed for critical diagnostic distinctions. If this is not done, the initial interviews with subjects will be extremely awkward and unnecessarily long because the interviewer will not know when to skip over items or sections, when to interrupt the subject because he already has sufficient information, or whether the subject is providing information that is irrelevant with respect to making the required judgments. *

Experience has shown that nothing is more valuable for training than conducting several interviews. Initially this can be done by having interviewers try out the instrument on one another and the person being

¹DSM-III-R, DSM-III, RDC, modified RDC (Gershon), Feighner, the symptom list for the OPCRIT 3.0 program, ICD-10 criteria, and DSM-IV proposed guidelines for Somatization and Schizophrenia.

interviewed assuming the role of a subject. Next, they should try it out on actual subjects, preferably representative of those who will be examined in the research study. If possible, these should be joint interviews with researchers making independent ratings, and there should be discussion of the interviewing technique and of all causes of disagreement in scoring.

Most of the items in the DIGS are scored on the basis of life-time occurrence of symptomatology, although some of them (e.g., current episode ratings) are limited to specific time periods.

DATA SOURCE

If the subject is too disturbed initially, observations should be made and the interview finished later when he is less disturbed. The judgments of items should be based upon contact with the subject.

JUDGMENTS

Particular attention should be given to whether the item refers to subjective symptoms that the subject must acknowledge to someone (e.g., feelings of depression, complaints of memory impairment) or to behavior that is observable by others (e.g., depressed appearance). Each item should be rated independently. For example, both retarded and agitated behavior may have been present during one period of illness. The interviewer should not infer the presence of an item (such as depressed mood), merely because of the presence of other items (such as lack of interest or other items in the depressive syndrome). However, he should probe further if an initial denial of a symptom appears to be invalid. If there is any information available, the interviewer should make his best judgment about the presence of the symptom.

When an interviewer is uncertain how a question should be coded, he should write enough information in the left margin so that a decision can be made after the interview is completed.

INTERVIEW

Even if an interviewer, after many repetitions, has committed the protocol to memory, he should still use the instrument as a guide to ensure coverage of the areas in which judgments are required. The use of the instrument in this way will also increase comparability across subsequent examinations with the same subject, examinations of different subjects, and examinations performed by different interviewers. The instrument contains many open-ended questions to encourage the subject to describe symptoms, rather than to simply answer yes or no as he would to a questionnaire.

* It is unnecessary to ask all of the suggested questions if sufficient information is available to score them. To do so makes the interview unnecessarily long. Also, the interviewer should not limit himself to the instrument, but should modify, omit and supplement questions, probe

for details, or alter the order of topics whenever necessary. He should be sufficiently familiar with the key diagnostic distinctions to know when it is necessary to review a section (e.g., returning to major depressive disorder when later inquiry suggests a previous false negative rating), or to consider two or more sections at once in determining the most appropriate rating.

The use of the instrument does not remove the interviewer's responsibility to be certain of the subject's replies. A symptom should not be rated as present simply because the subject says yes. A further description should be elicited, in the subject's own words, to make sure that the subject understands and is describing the symptom being rated. Similarly, if the subject says no, the interviewer must be certain that the symptom or behavior is not actually present. If there is strong evidence that the symptom is present (e.g., alcohol detected on subject's breath after denying current alcohol use), the symptom should be noted as present even if the subject denies its presence.

When there are many symptoms that are likely to be absent, the interview period can be shortened by combining and abbreviating questions, such as "What about..., ..., or ...?"

The interviewer should frequently remind the subject of the time being considered with such questions as "The first time that you were sick, did you...?" "How bad did it get then?" "How long did that last?"

REVIEW OF RATINGS

After the interview is completed, the interviewers should review his ratings and change them wherever appropriate. If necessary, the subject should be questioned further.

CODING

1. While filling in answers, no spaces should be left empty; zeros should be entered instead (e.g., age 7 = 07, four times = 04).
2. Code "UU" for "don't know" or "can't remember."
3. 00 = Never
99 = Too many to count
RF = Refuse to answer

For the "never" or "none" responses (00) or the "too many to count" (99) responses, please completely fill the boxes. That is, if it is a three-digit item use 000 or 999; a four-digit item, use 0000 or 9999, etc.

4. Leave blank only those questions that were skipped by instruction.
5. A current episode is defined as occurring within the past 30 days.
6. Often - 3 or more times
7. Ever - once or more
8. Frequently - 3 or more times
9. Repeatedly - 3 or more times
10. When coding columns that ask for days and weeks, fill in only one. If more than 7 days, code number of weeks. For example, it is not necessary to code 2 weeks and 3 days.
11. When asking onset and recency questions, use your own judgment about whether to review all the symptoms of a particular episode, e.g., "How old were you the last time you were manic/hypomanic?" (review symptoms).
12. Adolescence is defined as the period from ages 12-18.
13. If the subject is currently ill, prioritize sequence of sections, e.g., if psychotic, go directly to the Psychosis section.
14. ONS AGE - Age of onset of first symptom
REC AGE - Age of last symptom
15. Whenever uncertain how to code, write enough information in the left margin so that the editor can make a decision.
16. Probe, remember as much as possible, and use good judgment in case of any inconsistencies. The coding system is to be followed

strictly, whereas the proposed probing pattern is flexible; sometimes it will require more, sometimes fewer questions to be asked.

17. Site Optional - Each site's Principal Investigator will determine which site optional sections will be used.
18. Averaging can be minimized by interviewer's judgment, e.g., 7-10 beers/night, code 10; 24-26 years old, code 25.
19. Whenever "Specify" appears below a question, obtain and record an example or description of the symptom or phenomenon that is the evidence for a rating. This convention forces the interviewer to ask for a description of the behavior rather than merely accepting "yes" to a question that may have been misunderstood. (SCID)
20. Two issues should be addressed when an organic factor is discovered to have preceded the onset of a syndrome: 1) Is the organic factor one that is known to be likely to cause the syndrome?, and 2) Does the syndrome persist only in the presence of the organic factor? For example, a major depressive episode might occur following treatment with antihistamines; however, since there is no evidence that antihistamines can cause a depressive syndrome, it would be unreasonable to consider this organic factor as etiologic to the depression. On the other hand, while marijuana is known to be etiologically related to panic attacks, an individual who begins having panic attacks after smoking marijuana but continues to have attacks for weeks after discontinuing use could be given a diagnosis of panic disorder (i.e., the organic exclusion criterion would not apply). (SCID)
21. Symptoms should be coded as present or absent without any assumptions about what would be present if the subject were not taking medication. Thus, if the subject is taking 1000 mg of chlorpromazine and no longer hears voices, auditory hallucinations should be coded as currently absent, even if the interviewer suspects that without the medication the hallucinations would probably return. Similarly, if the subject is taking a sedative every night and no longer has any insomnia (initial, middle, or terminal), insomnia should be coded as currently absent. (SCID)
22. If the answer to a question is obtained from information in previous sections, code the answer without asking the question.
23. For items that are re-coded, strike through the original entry and record corrected information in right-hand margin.

DIGS DO'S AND DON'T'S

1. DO give the subject a brief explanation of the purpose of the interview before beginning. In research studies this will usually be part of obtaining informed consent. (SCID)
2. DON'T apologize for using a structured interview. ("I have to read these questions. Most of them won't apply to you. Just bear with me. I have to give this standardized interview.") When the DIGS is properly administered, it is a clinical interview and needs no apology. (SCID)
3. DON'T ask in detail in the Overview about specific symptoms that are covered in later sections of the DIGS. (SCID)
4. DO stick to the initial questions, as they are written, except for necessary minor changes to account for what the subject has already said, or to request elaboration or clarification. (SCID)
5. DON'T make up initial questions because you think it's a better way of obtaining the same information. A lot of care has gone into the exact phrasing of each question. (SCID)
6. DO feel free to ask additional clarifying questions, such as "Can you tell me about that?" or "Do you mean that...?". (SCID)
7. DO use judgment about a symptom, taking into account all of the information available, and gently confront the subject about responses that are at odds with other information. (SCID)
8. DON'T necessarily accept the subject's response if it contradicts other information or you have reason to believe it is invalid. (SCID)
9. DO make sure that the subject understands the questions. It may be necessary to repeat or rephrase questions or ask subjects if they understand you. In some cases it may be valuable to describe the entire syndrome you are asking about (e.g., a manic episode). (SCID)
10. DON'T use words that the subject does not understand. (SCID)
11. DO make sure that you and the subject are focusing on the same (and the appropriate) time period for each question. (SCID)
12. DON'T assume that the symptoms the subject is describing occurred simultaneously unless you have clarified the time period. For example, the subject may be talking about one symptom that occurred a year ago and another symptom that appeared last week, when you are focusing on symptoms that occurred jointly during a 2-week period of possible major depressive episode. (SCID)

13. DO focus on obtaining the information necessary to judge all of the particulars of a criterion under consideration. As noted above, this may require asking additional questions. (SCID)
- V.P. [14. DO make sure that each symptom noted as present is diagnostically significant. For example, if the subject says that he has always had trouble sleeping, then that symptom should not be noted as present in the portion of the DIGS dealing with the diagnosis of a major depressive episode (unless the sleep problem was worse during the period under review). This is particularly important when an episodic condition (such as a major depressive episode) is superimposed on a chronic condition (such as dysthymia). (SCID)
15. DO make sure your handwriting is legible, especially when recording medications.
16. DON'T use fractions or decimals.

Section A

DEMOGRAPHICS

This section was designed to obtain basic demographic information.

Q3 If the subject married into the index family and is adopted, continue. If the subject is a family member and the adoption was familial (adopted from within the family) continue. If the subject is a family member but was adopted from outside the family, skip to FIGS.

Q5 For geographical definitions, see Appendix A, page 115. It is unnecessary to read the entire list to the subject.

Q5a-5h Four possible codes have been allowed for both mother and father.

Q6 The Protestant religious category includes:

Pentecostal
Baptist
Presbyterian
Methodist
Episcopalian
Lutheran
Seventh-Day Adventist
Jehovah's Witness

Q7 This question refers to legal marriages only. This question does not apply to common-law marriages.

Q8 Information wanted here concerns living children. Include adopted children. Deceased children will be picked up in pregnancy section for female subjects and in family history section for males.

Q9 Non-linear - For the purpose of this interview non-linear is defined as relatives other than parents or children. If the subject is not legally married but has been living with a partner for eleven months or less, code under "Other" and specify.

Q10 Do not count volunteer work.

Q10a Highest level job refers to the job with the highest level of responsibility the subject has ever held. For job classifications, see Appendix B, page 116-119.

Q10b When coding for head of household, code based on most of his working career. Head of household is defined as the individual with the highest level of employment according to

the occupational chart on page 3 of the DIGS instrument and Appendix B of the DIGS manual. If the occupational category of both those eligible for head of household is the same, code the occupation of the one with the highest income and note in the margin who is being considered as the head of household.

Q11 Code for number of years

Grades 1-12

1 year of college or any number of years of technical school	= 13
2 years college	= 14
3 years college	= 15
4 years college	= 16
Masters Degree	= 18
Ph.D.	= 20+

Code only formal education or technical training. This information should be written in the "Record Response" space. If subject obtained a GED, record number of years of school completed and record GED in available space.

Q12a The intent of this question is to determine why a subject was rejected from the military. There may be several reasons such as being a sole surviving son, a conscientious objector, a cleric, or having an essential occupation.

Section B

MEDICAL HISTORY

This section assesses whether the subject has had any physical illness or injury.

- Q1 Does not include psychiatric problems. The medical records information sheet (page 140) may be used at this point to get detailed information if needed.
- Q2 This question may be used to obtain medical records. Therefore, it is essential that the list of nonpsychiatric, nonabuse related hospitalizations be as complete as possible. If the subject has had numerous hospitalizations, the information can be recorded in the margins. Minor surgeries such as tonsillectomies should be recorded in the "Times" box, but it is not necessary to record the details of these hospitalizations.
- Q3 Indicate under "Notes" whether the subject was diagnosed by a physician.
- Q3a Do not include hormonal imbalance during menopause.
- Q3b Probe for a description of headaches. Migraine headaches are usually described as acute, episodic, throbbing, one-sided, and with nausea and visual disturbance.
- Q3d Iron deficiency is not included here. Psychiatric symptomatology does not result from iron deficiency. Code "yes," any vitamin deficiency that was confirmed by the subject's physician, and list deficiency.
- Q3g Include familial tremors, tics, tardive dyskinesia, and Tourette's syndrome.
- Q4 Indicate under Notes why the subject had the test, what the results were, where the tests were completed, and the name of the physician if known.
- Q5 Note if the subject is on experimental medication.
- Q6 Ask about birth abnormalities. Probe for specifics if there was a prolonged hospitalization following birth. Probe for early developmental problems such as delayed motor development. Early development is from birth to age 6. Do not code yes for forceps used at birth.
- Q7a Refers to cigarette smokers only

#PPD = number of packs per day smoked

#YRS = number of years smoking "X" amount of packs (average)

- Q8b Include miscarriages, stillbirths, and abortions. Record subject's response. Twins or other multiple births are counted as one pregnancy.
- Q9 (Menstruation) Ask about mood changes, either depressed, high, or irritable. Specify direction, duration, and severity of any mood change.
- Q10 (Menopause) Code as yes if the subject is currently going through menopause. Menopause could be natural or precipitated by surgery. Ask about hormone replacement therapy here.

Section C

MODIFIED MINI-MENTAL STATUS EXAMINATION (If Applicable)

This examination is to be used when the subject is disoriented, confused, cannot give coherent answers, or appears to have substantial memory deficit.

Q1 Orientation

- 1) Ask for the date. Then ask specifically for parts omitted. One point for each correct answer. Score 0-5
- 2) Ask in turn "Can you tell me the name of this hospital (town, county, etc.)?". One point for each correct answer.

Score 0-5

Q2 Registration

Ask the subject if you may test his memory. Then say the names of three unrelated objects, clearly and slowly, about one second for each. After you have said all three words, ask the subject to repeat them. This first repetition determines the score (0-3) but keep saying them until all three can be repeated, up to six trials. If the subject does not eventually learn all three, recall cannot be meaningfully tested.

Q3 Attention and Calculation

Ask the subject to begin with 100 and count backwards by 7. Stop after five subtractions (93,86,79,72,65). Score the total number of correct subtractions. Make a notation if the subject cannot perform any addition or subtraction tasks. Then ask him to spell the word "world" backwards. The score is the number of letters in correct order, e.g., dlrow = 5, dlrow = 3.

Score 0-5

Q4 Recall

Ask if the subject can recall the three words you previously asked him to remember.

Score 0-3

Q5 Language

Naming. Show the subject a wristwatch and ask him what the object is. Repeat for pencil.

Score 0-2

Repetition. Ask the subject to repeat "No ifs, ands, or buts" after you. Allow only one trial.

Score 0 or 1

3-Stage command. Give the patient a piece of plain blank paper and repeat the command. Score one point for each part correctly executed. Score 0-3

Q6 Cognitive State

Reading. On a blank piece of paper print the sentence "Close your eyes" in letters large enough for the subject to see clearly. Ask him to read it and do what it says. Score one point only if the subject actually closes his eyes. Score 0-1

Writing. Using the available space at the bottom of page 10, ask the subject to write a sentence for you. Do not dictate a sentence; it is to be written spontaneously. It must contain a subject and verb and be sensible. Correct grammar and punctuation are not necessary. Score 0-1

Copying. On a clean piece of paper, draw intersecting pentagons, each side about 2.5 cm, and ask the subject to copy it exactly as is. All ten angles must be present and four lines must intersect, as in the example, to score one point. Tremor and rotation are ignored. Score 0-1

Q8 Estimate the subject's level of consciousness and circle the appropriate rating.

- 1 = Alert
- 2 = Drowsy
- 3 = Stupor

Section D

SOMATIZATION

This section provides diagnostic criteria for somatization disorder using DSM-III-R and DSM-IV (proposed guidelines).² Because the diagnosis of somatization disorder can require many questions, a branching procedure with appropriate skip outs has been included.

- Q1 DSM-III-R requires the following for somatization disorder:
(1) the subject must have a history with onset before age 30 of many physical complaints or the belief that he is "sickly";
(2) at least 13 symptoms listed in the section that describe body pain, gastrointestinal troubles, neurological troubles, and general nonspecific troubles must be present and of a nonorganic or nonpathophysiologic origin (not due to a physical illness or injury, or be the result of medication, drugs, or alcohol); and (3) must not occur only during a panic attack, and have caused the subject to take prescription (non-over-the-counter) medication, see a doctor (or other health professional), or alter his lifestyle. This section has further been organized along proposed guidelines for DSM-IV, so that if the subject has not had four or more body pains, he skips out of the section.

The interview schedule is made more efficient by "skipping out" at the appropriate and indicated questions. When in doubt, however, the interviewer should proceed to the next question.

- Q2 This question is not asking if the subject ever had this pain, but if he has ever been bothered by problems with particular body pains. Ask this question as written.
- Q3-13f The level of impairment codes (0,1,2,3,4) is a method of determining both the severity and the etiology of each symptom.

A professional is defined as a doctor, chiropractor, nurse, social worker, psychologist, or counselor.

²Permission for use of the Somatization Disorder section of the "DSM-IV Options Book: Work in Progress (9/1/91)," was granted under the following conditions: permission is nonexclusive and limited to the single use in the NIMH Genetics Initiative Cooperative Agreement; use is limited to the English language only; permission must be requested for subsequent uses from the American Psychiatric Association.

Impairment code 2 refers to alcohol and street drugs. Symptoms secondary to prescription drugs should be coded "3."

This coding structure applies to the entire Somatization section. For someone who has somatization disorder, this section can take a long time to complete. Individuals with this disorder generally like to go into minute detail concerning each symptom. It is important to record pertinent details of help-seeking behavior and information obtained, but an effort should be made to keep descriptions of the symptoms to a minimum.

Sometimes it is difficult to differentiate between a legitimate and an imaginary pain. Most of the pains/problems listed are descriptive and thus self-explanatory. Some problems are conditional, such as "having a lump in your throat other than when you feel like crying."

Sometimes the subject will answer, after he has been asked about pains in the joints, that he has pains in the leg or arm. Tell the subject that this will be asked about later. The symptom should be noted, and then the question should be re-asked, with emphasis on "other than in the arms or legs." Some subjects will mention pains that are not listed, such as a "painful, burning sensation on the forehead." All pains not listed should be recorded under the "Other pain" line.

All information pertaining to a particular symptom should be recorded. This is done in several ways. First, the interviewer asks the subject about the symptom:

I: "You told me that you were bothered by problems with back pain. Did you talk to a doctor or other health professional about the back pain?"

The interviewer also wants to determine severity:

I: "Did the back pain interfere with your life or activities a lot?"

In this case, the interviewer is trying to determine whether or not the pain was severe enough to cause the subject to seek professional or other help.

The subject may say that he sought professional help:

S: "I immediately went to my internist. He said that he didn't feel qualified to examine my spine so he sent me to an osteopath."

The interviewer is recording this information on the "Who was seen" line. The interviewer must then ask:

I: "What did the osteopath say?"

The subject might respond with:

S: "He said that I had a terrible curve in my spine, scoliosis, and that because of the way I sit at my computer at work, my spine had become very stressed and that I should wear a back brace."

With this information the interviewer knows that he should first record the subject's physical problem, and if this pain was always the result of scoliosis (or another physical illness or injury), the interviewer should circle a 3 in the code box.

The subject might also have responded this way:

S: "The osteopath said that there wasn't anything wrong with my spine. I'm still having problems with my back though."

In this case, the interviewer would code "No diagnosis (no problem found)" under the "What told" line. The interviewer would then ask the following:

I: "Was this trouble with your back ever the result of taking medication, drugs, or alcohol?"

S: "No, I don't think so."

I: "Was this trouble with your back ever the result of a physical illness or injury?"

S: "Definitely not."

At this point the interviewer codes a 4, indicating that the back pain could very well be of psychiatric origin.

Q2f FOR FEMALES ONLY (painful sexual intercourse) does not include the time period following childbirth.

Q3L If 4 or more answers are coded 4, skip to Q5. If 4 or more answers are coded 3 or 4, probe for more information, especially on questions coded as 3. Use stated probes and others as needed.

Q4 If unsure, continue with section.

NOTE: Interviewer note after Q7 in DIGS refers to impairment codes in Q7a-7e only.

Q7e "Three or more foods making you sick." These are three or more different types of food, not three of the same type of food (e.g., ice cream, cheese, whipped cream are all milk products and thus the same type of food).

Q16e "your heart beating so hard you could feel it pounding in your chest?" If the subject says yes to this, make certain that this is not only during vigorous exercise or while watching scary movies. The symptom must occur spontaneously.

The interviewer will need to pay special attention to skip outs after Q2, Q3, Q4, Q7, Q10, Q13.b.2, Q13f, Q16g. The skip outs will allow him to proceed to the next section.

Section E

OVERVIEW OF PSYCHIATRIC DISTURBANCE

The overview is an open-ended history of emotional problems that the subject acknowledges. If there are several different ones, do them in order of apparent relevance to the study. For subjects who are able to give a succinct or clear narrative account, this will speed up the interview. For those who don't acknowledge any problems, you may ask additional probing questions and ask the subject to expand on any positive response. Some subjects will offer an overly-detailed litany of complaints. You will need to gently redirect them to a question-and-answer style after giving them about 5 minutes to establish a rapport. The overview is also important in providing information about a subject's premorbid level of functioning. This section will vary in length; for most subjects with pathology, it should take between 10-20 minutes to complete.

- Q2a Age of onset: Earliest age at which professional advice was sought for psychiatric reasons or age at which symptoms began to cause subjective distress or impair functioning.
- Q2b Unemployment: The subject was not employed at onset of illness as defined above. Circle "yes" for employment if a woman was working full-time at home or if a student was attending classes on a full-time basis. (OPCRIT)
- Q4 If the subject has a long history of illness, it may be helpful to read the medications listed after Q4, page 17 of the instrument. A more complete list can be found in Appendix C, page 120-121.

In general, new interviewers will want to start by using the Overview of Psychiatric Disturbance to record appropriate information. As the interviewer becomes more experienced, the blank pages preceding the table may be used. Record symptoms, treatment, etc., in the narrative account.

Be aware that medical records will need to be requested on all psychiatric hospitalizations and outpatient psychiatric treatments by using the form on page 140 of the DIGS.

- Q5a If the subject has been hospitalized and then discharged to another hospital, this is counted as one hospitalization.

Section F

MAJOR DEPRESSION

This section provides diagnostic criteria for major depression using DSM-III-R, DSM-III, RDC, modified RDC (Gershon), ICD-10, and records symptoms for the OPCRIT 3.0 program.

The interview assesses both the most severe and the current episodes. A current episode is defined as having occurred within the past 30 days. If the subjects have had at least one week of feeling depressed, sad, blue, or irritable, or a period when he does not enjoy his usual activities, the full section will be administered. For DSM-III-R, even if the current episode does not meet the full criteria, but another episode (most severe) meets the criteria, the diagnosis is made for lifetime.

Boxed Codes: A number of questions are included to cover the full spectrum of potential depressive symptoms. In order to group symptoms into major systems, the response codes are enclosed in boxes by category. Thus, the subject can be coded as positive for sleep disturbance regardless of the variety of ways this was manifested for him. Some response codes, as well as the quantitative measurements of time, weight, etc., are not enclosed in boxes. Data should be accurately recorded there, however, since computer analysis of responses may add weight to symptom categories.

If the subject states that the current episode is the most severe, then symptom questions Q6-16 are coded in the most severe column.

Q1-2 Check on inclusion criteria. To complete section, the subject must answer yes to either Q1 or Q2. A minimum period of 1 week is included in both of these screening questions, and they should be coded no if the subject admits to the feeling but the duration of the symptom(s) is less than 1 week. If both Q1 and Q2 are coded no, the rest of the section is skipped. Write a marginal note if the subject answers yes to Q1 and his only symptom is irritability.

Q4b This period needs to last at least 1 week.

Q6a If there has been a mixture of weight gain and loss within one episode, code the greatest difference in weight change.

Q6d A weight loss or gain of 5% of body weight within a month, or an increase or decrease in appetite nearly every day is the DSM-III-R guideline for this symptom.

- Q7-7f Check for the symptom of a change in sleep pattern. This can be sleeping either too little or too much. If the subject answers yes to Q7, Q7a-7f are used to indicate the change in sleep pattern.
- Q8 This symptom must have occurred to the extent that other people could have noticed a difference in the subject's behavior even though they might not have noticed or commented.
- Q10 A decrease in the ability to enjoy usual activities during the particular episode being discussed.
- Q17 Count the number of symptoms by counting one positive symptom per box, e.g., even if Q12 and Q13 are both coded yes, when counting symptoms they are counted as one positive symptom because they are in the same box. If there are fewer than three positive symptoms in Q6 through Q16 in the current episode, return to Q6 and code the most severe episode.
- Q18 Code yes only if five symptoms are present (including Q1 and Q6-16) nearly every day during a 2-week period.
- Q20-21 Specify the content of the delusions or the hallucinations. Q22 will be coded based on information obtained here. Probe for more information necessary and get examples.
- Q20b Do not count duration of psychiatric symptoms during depression.
- Q22 Determine if the psychotic symptoms were mood-congruent or mood-incongruent. This is an important distinction. A decision will be made regarding diagnosis based in part on whether the psychotic symptoms are mood-incongruent (schizoaffective disorder) or mood-congruent (major depression) (RDC). Only one example is needed in order to rate an item mood-incongruent (write all examples in margins). According to the DSM-III-R, mood-congruent psychotic features would be "delusions or hallucinations whose content is entirely consistent with a depressed mood." Paranoid delusions related to depressed themes are considered mood-congruent. If the mood is depressed, the content of the delusions or hallucinations would involve themes of either personal inadequacy, guilt, disease, death, nihilism, or deserved punishment. Mood-incongruent psychotic features are described as "delusions or hallucinations whose content is not consistent with a depressed mood...examples of such symptoms are thought insertion, thought broadcasting, and delusions of being controlled whose content has no apparent relationship to any of the themes listed above."
- Q24 If the subject was also prescribed antipsychotics, code yes.

Q23-26a These questions ask about what kind of help the subject received for this episode of depression, if any, and are used to determine the level of impairment during the episode. If the subject received ECT (shock treatments) or was hospitalized for 2 days or more, he is considered to have been incapacitated and you can skip to Q29 and code #2 = INCAPAC.

Q27-28b These questions also attempt to determine the subject's level of impairment. If the subject was completely unable to function in his major role for at least 2 days, he is considered to have been incapacitated. If, on the other hand, the major role was continued but there was a decrease in the quality of the subject's performance in this role that was noticeable to others, the subject is considered to have been impaired rather than incapacitated. Major role is defined as what the subject is doing full-time. For example, if going to school full-time and working part-time, the major role is school. Also, if a subject works outside of the home and is also assuming the responsibility of a household and/or children, the major role is considered to be job.

In Q27 homeless person would be coded 4 = Other.

In Q28 under "Specify:" note how functioning was affected and for how long.

Q29 Make marginal notes to justify your coding.

Q30 If there was no incapacitation or impairment, based on ECT, hospitalization for 2 days or more, or inability to function in major role, ask this question about impairment in a minor role.

Q31-35 These questions are used to determine if there was an organic precipitant. The question should not be coded yes based on the subject's initial answer. To be considered a precipitant, a change (e.g., new medication or significant increase in drug or alcohol use) should have occurred during the month prior to the onset of the episode. Also, persistence of symptoms following the cessation of the possible precipitant (e.g., 2 weeks) implies nonorganic etiology. After obtaining more information, code the answer based on your judgment of whether what the subject was talking about was indeed an organic precipitant. Be careful to specify information when asked. These written comments will be used to assist in making a final diagnosis. If you suspect there might have been an organic precipitant, try to determine if there has been at least one "clean" episode, i.e., no organic precipitant.

NOTE: If there are no other episodes of depression or other episodes are also "dirty," the Major Depression section items would remain as coded and it would be evident from items 31-36 that it was not a clean episode.

- Q32 Episodes that begin within 6 weeks of childbirth are called postpartum depression.
- Q36 Episodes that begin within 3 months of a death of a relative, spouse, or unusually close friend are called bereavement or grief reaction.
- Q37 Answer this question based on information obtained while coding specific episodes or through your unstructured attempts to establish another clean episode.
- Q38 This question and its subparts are used to determine recurrence. At least two episodes of depression are necessary to establish a diagnosis of recurrent major depression. If two episodes, i.e., current and most severe, have already been established, this question can be skipped. The recurrent episode can be severe and/or incapacitating.

NOTE: If there are other clean episodes of depression uncovered via the checklist (Item 38b) on page 31 or during other probing, write information on clean episode in margins. Do not go back through the Depression section and re-code the items.

- Q42 This question is asked because sometimes, in a person with bipolar disorder, medical treatment for depression such as tricyclic antidepressants or ECT will precipitate a manic or hypomanic episode. This information can be useful in making a diagnosis of bipolar disorder.

NOTE: A timeline may be helpful in this section to establish course of illness.

See Appendix D on page 122 for a list of common causes of depressive syndromes.

Section G

MANIA/HYPOMANIA

This section provides diagnostic criteria for mania/hypomania using DSM-III, DSM-III-R, RDC, modified RDC (Gershon), ICD, and records symptoms for the OPCRIT 3.0 program.

In the following sections determine if the subject has ever had an episode, i.e., a relatively discrete period of impaired functioning or psychopathology that can be clearly distinguished from prior or subsequent functioning, which meets the criteria for manic or hypomanic syndrome described below. If the full criteria for a manic or hypomanic syndrome are not met, but there is evidence of some affective disturbance, the disturbance should be noted in the narrative.

Please note that unlike the SADS-L, the DIGS has only one section to elicit manic and hypomanic episodes. The essential differences between manic and hypomanic episodes are in severity of symptoms and in impairment. In fact, it is essentially the case that hypomanias produce no functional impairment.

In this section, based on screening questions (Q1a-1d) and on other information received, make a decision about whether to continue the section. If Q1e is coded no, skip to Q35, page 39.

If manic symptoms have been present during the past 30 days, the current episode will be coded first.

In the probe questions it is essential that the phrase CLEARLY DIFFERENT FROM YOUR NORMAL SELF be emphasized.

- Q1a This is a criteria-based question. The second question ("Was this more than just feeling good?") can be asked if necessary to ensure that the subject is not talking about a period of time of feeling good that is not atypical.
- Q1b Mania can be experienced as feeling angry or irritable as well as feeling good or high. This question is used to cover this possibility.
- Q1c If it is unclear about whether the subject is responding positively about a true manic episode or if there is reason to believe the subject has had or is currently having a manic episode based on observation or on reports from family members or other informants, this space and the possible probes can be used to gather more information. If you suspect an episode based on something other than the respondent's report, attempt to get him to discuss symptoms without revealing the source of your suspicion. For example, you might be able to refer back to something the subject mentioned in an earlier section. If

you suspect the subject had a manic episode in 1987 and he had talked about something going on at that time, refer to it. "What about when you were hospitalized in 1987?" or "What about when you lost your job in 1987?" If you suspect a current manic episode based on the subject's behavior, you could say something like, "It seems like you are really feeling energetic and good today. How long have you been feeling this way? Let's talk about this period."

- Q1d In order to meet criteria, symptoms of mania must last persistently throughout the day or intermittently for 2 days or more.
- Q1e Use all of the above information to decide whether to continue through this section or skip out. If unsure, go through the section.
- Q2 Code without asking the question if information was obtained in Q1c.
- Q5-13 Check on manic symptoms necessary for criteria. If the subject's mood is both irritable and elated, circle elated and write in margin that the subject has mixed symptoms of both irritability and elation.
- Q10a-10b It is important to quantify hours (both normally and during the manic episode) since minor sleep pattern changes may not meet criteria for this symptom.
- Q18 Determine if the psychotic symptoms described in Q16-Q17 were mood-congruent or mood-incongruent. According to the DSM-III-R, mood-congruent psychotic features would be "delusions or hallucinations whose content is entirely consistent with the typical manic themes of inflated worth, power, knowledge, identity, or special relationship to a deity or famous person." Paranoid delusions related to manic themes are considered mood-congruent. Mood-incongruent psychotic features are either delusions or hallucinations whose content does not involve the typical manic themes of inflated worth, power, knowledge, identity, or special relationship to a deity or famous person. Included are such symptoms as persecutory delusions (not directly related to grandiose ideas or themes), thought insertion, and delusions of being controlled, thought broadcasting, insertion, or withdrawal.
- Q19-22a These questions are used to determine the level of impairment during the episode (for modified RDC). If the subject received ECT (shock treatments), was hospitalized, experienced delusions or hallucinations during the episode, was completely unable to function in a principal role for at least 2 days, or was unable to carry on a conversation, he is considered to have been incapacitated. If there was a

decrease in functioning but it was not severe enough to incapacitate the subject, he would be considered to have been impaired.

Q20 Score yes if a manic episode was treated with an antipsychotic drug.

Q24 Under "Specify:" note how functioning was affected and for how long.

Q25 Note details of improvement in margin.

Q27-29c These questions are used to determine if there was an organic factor that initiated and maintained the episode being discussed. Be careful to specify information when asked. Interviewer judgment will be necessary in determining if the organic factor mentioned could indeed cause the episode. For example, one time use of cocaine would not likely initiate and maintain a manic episode lasting 6 months. If you suspect an organic precipitant, try to determine if there has been at least one clean episode, i.e., no organic precipitant.

Q30 Answer this question based on information obtained while coding specific episodes or through your attempts to establish another clean episode. If manic episodes can be distinguished from hypomanic episodes, score this episode as mania and note in margin.

Q32 In a mixed affective state there is a combination of manic symptoms, such as high energy and racing thoughts along with a dysphoric or depressed mood. Mania can occur after a death or loss of a loved one. If this happens, it is considered a pathological reaction.

Q32a If a subject has had a long period of illness characterized by mixed affective states, this should not be considered one episode. If the number of episodes cannot be identified, code 99.

See Appendix D on page 122 for a list of common causes of mania.

Section H

DYSTHYMIA

This section provides diagnostic criteria for dysthymia using DSM-III-R.

Dysthymia is a depressed mood that occurs for most of the day, more days than not, for at least 2 years. In other words, it is a depressed mood that continues over an extended period of time, accompanied by depressive symptoms, but not as severe as a major depressive episode.

Q2 An episode of major depression during the 2-year period of dysthymia or during the 6 months just prior to the onset of the dysthymic period excludes that 2-year period from consideration.

Q3 Try to determine if organic factors such as street drugs, alcohol, medication, or physical illness precipitated and sustained the episode.

If either Q2 or Q3 are coded yes, attempt to identify another episode that is clean. If a clean episode can be identified, re-code ages given in Q1a and Q1b. If a clean episode cannot be identified, complete the section anyway obtaining information on the period even though it might be ruled out.

Q5 A period of at least 2 months of normal mood during a 2-year period of dysthymia excludes that 2-year period from consideration. Attempt to establish if another 2-year period existed during which the subject's mood did not return to normal for at least 2 months.

DEPRESSIVE PERSONALITY/HYPERTHYMIC PERSONALITY

The expected rates in controls are 2-3% for depressive personality and hyperthymic personality and 1% for cyclothymic personality.

The expected rates in affective disorder family members are about 3-4% for depressive personality and hyperthymic personality and 3% for cyclothymic personality.

DEPRESSIVE PERSONALITY

This section provides diagnostic criteria for depressive personality using the Modified RDC (Gershon).

This category is for subjects who characteristically (or chronically) are bothered by dysphoric mood not attributed to any other psychiatric condition described in these criteria. It includes subjects who might be categorized as depressive personality, emotionally unstable, asthenic personality, or chronically anxious (without panic attacks).

Information is to be obtained about the premorbid period. If there is no Axis I diagnosis, consider the subject's functioning since age 18.

- Q6 50% = half the number of years between 18 years old and now for those with no major affective disorder. For subjects with affective disorder code yes, if more than 50% of the number of years between age 18 and the age of the first major affective disorder. When calculating 50%, the first episode may be unclear.

For example, if a subject is 40 years old at the time of the interview, and had a major depressive episode at age 35, you would ask Q6, page 41, in the following way: "For much of your life, that means at least half (50%) of those years between the ages of 18 and 35, have you had hours, days, or weeks when you felt sad, down, or blue?"

Since at least early adulthood, the younger person (late teens) has been bothered by the following to a noticeably greater degree than most people:

- A. Some dysphoric mood for at least 2 days a month (not necessarily 2 consecutive days four or more times per year (periodic) or most or all of the time (chronic). The dysphoric mood dominates the clinical picture and may contain varying mixtures of or be limited to anxiety, irritability, apathy, or depression (sad, blue, hopeless, down in the dumps). (Includes a subject in his 20s who has been this way for at least 3 years.)
- B. The chronic condition (other than a superimposed episode of another condition) has resulted in one of the following:
 1. Subject communicated with a close relative or friend on how he felt.
 2. Someone has complained about some manifestation of the condition.

C. Dysphoric mood is not attributable to any other psychiatric condition noted here, such as cyclothymic personality, somatization disorder (Briquet's syndrome), or anxiety state, and is unrelated to changes in external circumstances. (If moods recur regularly, this implies that they are unrelated to external circumstances.)

NOTE: INTERVIEWER INSTRUCTION AFTER Q5 ON PAGE 41 OF INSTRUMENT

Age of onset of major psychiatric disorder is the earliest age of onset from the Mania and Depressive sections or the Psychosis section.

HYPERTHYMIC PERSONALITY

This section provides a diagnostic criteria for hyperthymic personality using the Modified RDC (Gershon).

Information is to be obtained about the premorbid period. If there is no Axis I diagnosis, consider the subject's functioning since age 18.

Since early adulthood, the following have been present to a noticeably greater degree than in most people:

- A. Periods of elation or excitement (optimism, ambition, energy, "lucky feeling") lasting at least 2 days four or more times per year (periodic) or most of the time (chronic).
- B. This condition resulted in:
 - 1. Subject communicated with a close friend or relative on how he felt (whether it was especially good or especially distressing).
 - 2. Someone complained or commented on some manifestation of this condition.
- C. Changes in mood often unrelated to external events or circumstances, or recurs regularly.

Q14 50% = half the number of years between 18 years old and now for those with no major affective disorder. For subjects with affective disorder, code yes if more than 50% of the time between ages 18 and the age of the first major affective disorder.

The answer to this question is not determined in a subjective fashion, but based on age of onset.

Section I

ALCOHOL ABUSE AND DEPENDENCE

This section assesses both alcohol consumption (site optional) and a diagnostic criteria for alcohol abuse and dependence using Feighner and DSM-III-R. Two additional questions are included to address ICD-10 criteria. A subject is given the opportunity to skip out of this section if he never had one drink of alcohol, never consumed alcohol on a regular basis (drank at least once a week for 6 months or more), had never been drunk (when speech was slurred or unsteady on feet), or had never had more than three drinks during a 24-hour period.

- Q2 If the subject has had at least one drink, then he is asked about alcohol consumption within the past week, starting with the previous day. There are three main categories to assess: beer/lite beer, wine, liquor.

Always record the name of the drink if it is not a well-known brand. Ask the subject about each category of alcohol, starting with the previous day, and go through all the categories before starting on the next day of the week. If the subject says that he had some of a particular beverage, ask how much was consumed and how long it took to drink the beverage. The number of drinks is coded in Col. I, the consumption time (minutes) in Col. II.

I: "Yesterday was Friday. How many beers or lite beers did you have on Friday?"

S: "Four"

I: "How long did it take you to drink those four beers?"

S: "Well, I spent about 2 1/2 hours at the bar with my friends, so I would have to say it took that whole time."

Multiply 2 1/2 x 60 to achieve a total of 150 minutes to drink those four beers.

I: "How much wine did you have yesterday (Friday)?"

S: "I split a bottle with my girlfriend when I got home. We finished it off with dinner, so I guess that was about 45 minutes."

Code "half a bottle" as three drinks, which took a total of 45 minutes to consume.

I: "How many drinks of (hard) liquor did you have yesterday?"

S: "None"

Code "0" in the "Drinks" column, and "0" in the "Minutes" column.

I: "Did you have any other alcoholic beverage yesterday?"

S: "No"

I: "How about Thursday? Did you have any beer or lite beer on Thursday?"

Proceed in this fashion to ask the subject day-by-day and drink type-by-drink type habits to get a pattern of use for the previous week.

If the subject cannot remember how much he drank or how long it took, and prompting (i.e., "Was it one drink, two drinks?" or "Did you drink during Happy Hour - that is usually between 5 and 7 pm in the city?") does not help clarify an answer, code the response with a "Unknown" ("UU") code.

- Q5a "Regular drinking" is defined by the question as the age when the subject first had a 6-month period of having alcohol once a week. If this period occurred before the age of 10, the single digit number should be coded with a 0 in front.
- Q6 This question follows the same form as Q3. If the subject tells you that the past week (Q4) was not a typical drinking week for him, then you must again follow the day-by-day, drink-by-drink pattern for each day, starting with a typical Monday and continuing through the other days. If the week was typical, you ask Q5. Then proceed to Q7. Record the actual time it takes to consume the drink(s). The inquiry about drinking in a "typical" week, refers to a typical week in the past 6 months. Do not ask this question if Q4 is yes.
- Q8 The largest number of drinks in a 24-hour period is the total number of combined types of any form of alcohol the subject might have consumed within a 24-hour period. So, if the largest amount of alcohol the subject had was a half case of beer, a bottle of wine, and a 5th of gin, the total number of drinks would be $12+6+20 = 38$ drinks. Code 38 in the spaces provided.
- Q11 Do not code yes, if guilt is due to strict cultural or religious beliefs that prohibit or condemn drinking.

- Q19 Increased tolerance is operationalized as 50% or more. Suggested probe: "Would it take one and a half as many drinks as it did originally for you to get the same effect?"
- Q27 Blackouts are periods when the subject was conscious, but cannot remember what happened. This is usually indicated when the subject cannot remember what happened during several hours or even days, or when others have said he did something and the subject cannot remember the incident. Blackout periods may also be recalled by the people who were with the subject.
- Q29 This question assesses withdrawal symptoms when the subject stopped or cut down on drinking. If more than one symptom is coded yes, then the subject is asked whether two or more of these symptoms occurred together, and then asked to name these symptoms. You may read the withdrawal symptoms that were identified and coded yes, and the subject may then indicate which of these occurred at the same time.
- Q30 This question assesses physical health problems that could have been caused by drinking. If the subject describes another health problem that was the result of drinking, code this in the "cause other problem" line, specify what the problem was, and be certain to determine whether the subject was told this by a health professional.
- Q32-32e The specifications of "more than 24 hours" and "interfered with your functioning" have been added to emphasize that these were actual psychological problems, and not just short-term symptoms of withdrawal.
- Q33a Professional is defined as a physician, psychologist, social worker, nurse, or clergyman.
- Q34 This question is important for DSM-III-R criteria for alcohol dependence. The questions reviewed for positive symptoms are starred (*). Onset and recency age refer only to those questions that are starred and coded yes. Interviewer should note in margin which symptoms were positive for clustering.
- Q34a-34b The word "persistently" means continuing for several days.
- Q35 First, second, and third times refer to three separate problems. This question refers to any of the problems related to alcohol. The alcohol use card with a list of symptoms may be useful for the subject to review after it has been checked for positive responses.
- NOTE: If you skip site optional questions, and have completed CAGE questions and suspect the subject drinks more than he has stated, go back and ask site optional questions.

Section J

DRUG ABUSE AND DEPENDENCE

This section provides diagnostic criteria for drug abuse and dependence using DSM-III-R. The interview also includes several questions to determine the presence of "high risk behavior."

MARIJUANA

The Marijuana section has been separated from the general drug section because the use of marijuana is very common, but not necessarily indicative of other drug use. Entrance into this section requires use of the drug more than 21 times in a year. Subjects who currently use marijuana and have not reached this threshold will be excluded from this section.

Q1a Time is defined as a discrete episode of use. It does not refer to quantity of marijuana.

Q2 "almost every day" means more days than not.

Q2a Date is from time of onset.

Q14a-14b The word "persistently" means continuing for several days. Interviewer should note in margin which symptoms were positive for clustering.

OTHER DRUGS

The interviewer hands the subject a card that lists many prescription and nonprescription drugs. The subject is asked whether he has used any of these when the drugs were not prescribed or to feel good, high, more active, or more alert.

If the subject has never taken drugs except when prescribed, or over-the-counter medications as indicated, skip to the next section. The subject may have experimented with drugs briefly, and the number of times and age when he began to use each drug will be assessed. If the subject has tried several drugs, such as cocaine, stimulants, or hallucinogens, but no drug has been used 11 or more times, skip to the next section. If several drugs have been used 11 or more times, choose the two most frequently used and ask about those in the diagnostic drug section beginning with Q16. The diagnostic drug section focuses on use of cocaine, stimulants, sedatives, and opiates. Drugs used 11 or more times and not included in these categories will be coded in the miscellaneous column. If more than one drug could be included in the miscellaneous column, ask about the one most frequently used.

- Q15b If drugs have been taken more than 100 times, code 99.
- Q23-23n Note that all withdrawal symptoms do not apply to all drug categories. Do not ask about individual withdrawal symptoms for drug categories in which no coding choices are provided.
- Q31a-31b The word "persistently" means continuing for several days. Interviewer should note in margin which symptoms were positive for clustering.
- Q32e Record the type of treatment.

Section K

PSYCHOSIS

The section provides diagnostic criteria for psychosis using DSM-III, DSM-III-R, RDC, Modified RDC (Gershon), DSM-IV (proposed guidelines)³, ICD-10, and records symptoms for the OPCRIT 3.0 program.

INTRODUCTION

Psychotic behavior presents as a symptom of many psychiatric disorders. It is for this reason that the Psychosis section focuses on psychotic behavior independent of any diagnostic category. Here the emphasis is on identifying and describing specific psychotic experiences for subsequent analysis using a variety of diagnostic schemes. The interviewer is required to codify specific psychotic symptoms and their occurrence in isolation as well as within the context of depression, mania, alcohol use, drug use, medical conditions and/or other psychiatric disturbances such as schizophrenia and schizoaffective disorder.

The Psychosis section combines the SADS-LB and the CASH with modifications of both. The goal of this section is to establish whether or not: 1) the subject has ever experienced any psychotic symptoms; 2) the subject has ever had a psychotic syndrome; and 3) the subject is currently experiencing any psychotic symptoms or a current psychotic syndrome. The timeframes established for the interview are: 1) Ever Present, and 2) Current/Most Recently Present. A subject who does not give a history of or describe psychotic symptoms during the initial screening questions will not be administered this portion of the instrument.

ADMINISTRATION

- Q1 All screening questions in 1c should be asked. The screening questions assist in determining if the subjects have ever had an episode or period of illness that consisted of psychotic symptoms (here narrowly defined as involving either delusions, hallucinations, marked formal thought disorder, or grossly bizarre behavior that did not occur as part of a shared religious or subcultural belief system). There may or may not have been an identifiable organic causal factor (such as

³Permission for use of the Psychosis section of the "DSM-IV Options Book: Work in Progress (9/1/91)," was granted under the following conditions: permission is nonexclusive and limited to the single use in the NIMH Genetics Initiative Cooperative Agreement; use is limited to the English language only; permission must be requested for subsequent uses from the American Psychiatric Association.

ingestion of a hallucinogen, amphetamine intoxication, fever, arteriosclerosis, alcohol or drug use). Episodes or periods of psychosis will later be categorized as schizophrenia, schizoaffective disorder, delusional disorder, affective psychosis, alcohol-induced psychosis, substance-induced psychosis, organic psychosis, or unspecified functional psychosis. The latter group contains conditions that clinicians might call transient situational psychoses, paranoid states or hysterical psychosis, and schizophrenic-like episodes with durations of less than 2 weeks.

SKIP OUT: If there is no evidence, from any source, of any psychosis or if the experiences reported did not last persistently throughout the day for one day or intermittently for a period of 3 days, skip to the next section: Schizotypal Personality Features (Bipolar Centers) (Page 81) or SIS (Schizophrenia Centers) (Page 83). For Schizophrenia Centers: if an interviewer suspects psychotic symptoms and completes the psychosis section, but is not able to gather enough information to make a diagnosis, he should then complete the Modified SIS.

If you suspect psychotic behavior even though the subject does not endorse any of the screening probes, continue to probe more informally and/or proceed with the section until certain that no psychotic behavior has been experienced.

For any positive responses on the screening questions, determine whether the symptom is of psychotic proportions by using the standard probes as necessary. Establish duration and frequency for every positive response. Obtain examples and note in the margins.

ESTABLISHING TIMEFRAMES FOR THE INTERVIEW

If psychotic symptoms are endorsed or suspected based on responses to screening questions, try to determine if the subject is currently symptomatic (within past 30 days). If the subject denies symptoms during the interview, but you observe the subject experiencing symptoms, code yes.

- Q2 If the subject responds no to whether he is currently experiencing psychotic symptoms, it is imperative that you do not skip to Q3 but continue with Q2a.
- Q3 If the subject is not actively psychotic, use this item to determine how old the subject was the last time that he was actively psychotic.

A critical determination for establishing the time frame for the interview in subsequent psychosis subsections (e.g. delusions, hallucinations) is whether an individual ever returned to a premorbid level of functioning for at least 2 months (Q4). This determination directly affects whether an episode is deemed to be current or not.

DATE: October 21, 1992

TO: Site Coordinators

FROM: Debra Wynne, LCSW

The following paragraph has been approved by the Bipolar/Schizophrenia subcommittee. Please insert this paragraph in your current DIGS manual.

Psychosis Section, bottom of page 36.

Some individuals with schizophrenia will have a remission or positive symptoms with antipsychotic medication, but still manifest some negative symptoms. These individuals should be considered to be in episode.

The CURRENT EPISODE will refer to an episode of psychosis that is present at the time of the interview. This episode may include prodromal and residual symptoms. A subject is considered out of episode if he has had a return to his usual (premorbid) level of functioning for at least 2 months. Thus, some subjects may not be actively psychotic at the time of the interview and yet still be in a psychotic syndrome. It is important to obtain and rate a full description of the subjects active, prodromal, and residual symptoms for the current episode since this will be the only information available for determining some specific diagnoses such as schizophrenia. Thus, a subject who experienced two weeks of grandiose delusions and auditory hallucinations preceded and followed by several months of prodromal symptoms and 2 years of residual symptoms would be described for the entire period of the disorder (starting with the first prodromal symptoms, including the active psychotic symptoms and continuing to the current residual symptoms).

If the subject is not in a current episode but has had previous episodes, the most recent episode is to be described. The most recent episode is the last episode that included active psychosis with or without prodromal and residual symptoms followed by at least 2 months of usual functioning without any symptoms. In making this distinction, the interviewer should utilize information about an individual's course of illness already obtained in the Psychiatric Overview. It may be necessary, to supplement this information with further questions about a subject's return to premorbid functioning.

In summary, if the subject has shown significant signs of psychosis more or less continuously since onset (i.e., no periods of 2 or more months back to premorbid functioning), count it as one period of illness. If the current episode is the only episode, symptoms will be indicated in both the EVER column and the CURRENT EPISODE column.

USE OF THE EVER ARRAY

In addition to documenting symptoms associated with the current or most recent episode, the EVER column is designed to determine whether the subject has ever had any psychotic symptoms. The array in the EVER column establishes the context for past psychotic symptoms. When a subject reports a specific psychotic experience, establish the context of that symptom based on the previous sections of the interview. You should have already established whether or not the subject has had a history of depression, mania, alcohol use, drug use or other conditions. For example, if a subject reporting paranoid delusions has already reported a history of depression and alcohol use but not mania or drug use, ask if the delusions were experienced during a depression and/or during alcohol use. There would be no need to ask about delusions during mania or drug use since the subject has already denied such experiences. Establish subsequently which symptoms described in this column occurred simultaneously and describe the co-occurrence

of symptoms in detail in the narrative. This is the only mechanism available for applying diagnostic criteria to past episodes of psychosis.

USE OF THE ARRAY TO ESTABLISH TEMPORAL RELATIONSHIP OF TWO OR MORE PSYCHOTIC SYMPTOMS

When going through the array, etc., it is important to tie an enclosed symptom to a particular episode. For example, if a subject is judged to have had a persecutory delusion associated with a mania, try to establish the timeframe. The timeline obtained during the overview is especially useful in getting this information.

Using the timeline, probe: "Was this during the '73 episode of mania that you've told me about?" Record dates in margin.

When a second symptom is endorsed, ask: "Was that also during the '73 episode?"

When multiple episodes occur, restrict your inquiry to one or two of the most severe episodes.

PROBES FOR SYMPTOM ARRAY

1. Question (ever)
2. Specify (example)
3. Standard Probes (ask enough to be reasonably certain symptom is of psychotic proportions)
4. Record in margin frequency and duration of symptom.
5. Determine if the symptom ever occurred independently of mood disorder, alcohol or drug abuse, or if it ever occurred in conjunction with any of these listed disorders. Do not ask if the symptoms occurred in conjunction with one of the other disorders unless the subject has a history of these disorders per prior section. If there is a history of major depression, ask:

"Did this symptom occur when your mood was stable, that is, when you were not having mood problems?"

"Did it ever occur at the same time you were having mood problems like depression or mania?"

Repeat the same type of probes about alcohol abuse and drug abuse if appropriate.

See Appendix E on page 123 for additional organic causes of psychosis.

DELUSIONS

False beliefs or judgments that are out of proportion to actual experience and reality. A delusional belief is held with extraordinary conviction and persists within the face of any evidence to the contrary. Delusions are to be distinguished from illusions and hallucinations, which are perceptual experiences. It is up to the interviewer to distinguish between delusional beliefs and overvalued ideas.

NOTE: The interviewer must circle the appropriate response in the CURRENT or MOST RECENT EPISODE column in Q5-17.

- Q5 Persecutory Delusions (additional probes): "How are they trying to harm you? Is there an organization behind this, like the Mafia? Why are they singling you out? Are they trying to harm you in any other way?" Refers to lifetime.
- Q6 Jealousy Delusions (additional probe): "What kind of evidence do you have?"
- Q9 Religious Delusions - Do not score beliefs held as part of an organized religion.
- Q11 Delusions of Reference - Do not include simple self-consciousness or the feeling that the subject attracts comment even if critical (PSE). They should be distinguished from ideas of reference, which are not firmly held in the face of contrary evidence and are commonly experienced in everyday life.
- Q12 Being Controlled - The subject's will is replaced by that of some external agency. Do not include feeling that life is planned and directed by fate, or under God's control.
- Q14 Thought Broadcasting - The subject's thoughts are audible to others. Subject felt that thoughts could be heard by others.
- Q15-16 These experiences are independent of the subject's will.
- Q18 The longest continuous period of delusions. If delusions are intermittent for days and weeks, the total duration is recorded.
- Q19 Was there a time the subject had disorientation or confusion together with a delusion? A change in the level of consciousness that may be due to physical factors, e.g., delirium or other factors (site optional for bipolar groups)
- Q20 "Delusions not organized into a consistent theme. For example, the subject thinks his room is bugged, believes people doubt his sexual potency, and suspects he may be the son of Paul McCartney." (CASH)

- Q22 Bizarre or Fantastic Quality - "Extent to which the content any of the delusional beliefs have a bizarre or fantastic quality. That is, the delusional belief is not possible and has no base in reality." (CASH) For example, the subject thinks there are martians walking in the kitchen.

HALLUCINATIONS

"Perceptual experiences without an objective source. These may be auditory, visual, olfactory, tactile or gustatory in nature. Hallucinations differ from illusions in that there is not objective external stimulus for the perception." (CASH)

NOTE: The interviewer must circle the appropriate response in the CURRENT or MOST RECENT EPISODE column in Q23-Q37c.

- Q23 "What is it like? Can you make out the words?"
- Q30 Distinguish from somatic delusions.
- Q32 Distinguish from illusions for which there is some external stimulus.
- Do not score as positive if they occur only when falling asleep.
- Q34 Duration of hallucinations includes the longest period of time when the subject had continuous or intermittent hallucinations. If the subject is unsure, estimate the duration.
- Q35 Code this as yes even if the subject did not hallucinate the entire day.
- Q37 This item asks if there ever was a time when hallucinations and delusions overlapped. For example, "Was there a time when you believed someone was following you and you were also hearing voices? Was there a time you believed any of the ideas we were just discussing and you were experiencing voices and visions at the same time?"
- Q37a If there has been an overlap of hallucinations and delusions rate the duration of this overlap. If the two symptoms coincided intermittently and frequently, rate the total duration of this overlap.
- Q38 A change in the level of consciousness that may be due to physical factors, e.g., delirium or other factors (site optional for bipolar groups).

BIZARRE BEHAVIOR

- Q39 Bizarre Behavior - Unusual behavior is behavior that is not typical of the culture and would probably call attention to the individual.

POSITIVE FORMAL THOUGHT DISORDER

- Q41 Disorganized and Odd Speech - Speech that is impaired by distorted grammar, incomplete sentences, lack of logical connection between phrases or sentences. If the subject is currently thought disordered, code without asking.
- Q42 Speech with Content That Is Difficult to Follow - Speech that is excessively vague or extremely overelaborated. Odd speech is not incoherent but rather the content lacks substance or meaning. If the subject is currently thought disordered, code without asking.

CATATONIC MOTOR BEHAVIOR

This item is to be scored as present if any of the following are reported:

- Q44 Rigidity - Maintains a rigid posture
- Q45 Stupor - Marked decrease in reactivity to environment and reduction of spontaneous movements and activity
- Q46 Excitement - Apparently purposeless and stereotyped excited motor activity not influenced by external stimuli

Other Catatonic Behavior

Catalepsy: Immobile position maintained over time

Mutism: Refusal to speak

Echolalia: Repetition of verbal communications

Echopraxia: Repetition of movements

AVOLITION/APATHY

- Q48 Lack of energy or drive leading to the general difficulty of initiating and engaging in activities. Distinguish between decreased energy and interest that may accompany depression and the difficulty initiating and sustaining activity associated with negative symptoms. Determine if this happened during a period of depression. Do not code as positive if decreased energy or drive is due to depression and not due to negative symptoms.

AFFECT

- Q50 Flat or Inappropriate Affect - Virtually no signs of affective expression; the voice is usually monotonous and the face immobile. Distinguish from the affective flattening that may be seen in a major depressive episode. Note that antipsychotic drugs may cause similar effects.
- Q51 Inappropriate Affect - Affect is clearly discordant with the content of the subject's speech or ideation. Sudden unpredictable changes in affect involving outbursts of anger or laughter may occur.

DEPERSONALIZATION/DEREALIZATION

- Q54 The Feeling of Changed Reality - The feeling that one's surroundings have changed.

BIPOLAR CENTERS

- Q56 This is a critical decision point for distinguishing schizoaffective disorder from mood disorders with psychotic features. Subjects with chronic psychosis and a mood disorder should not skip out at this point.
- Q56a If psychotic symptoms persist at least a week in the absence of mood symptoms, continue with the Psychosis section.
- Q56b If psychotic symptoms only occur during mood disorder, check for mood-incongruent psychotic symptoms during depression. If present, continue Psychosis section. If psychotic symptoms are only present during mania, code no. If you code no on 56b, follow SKIP pattern.

ONSET OF FIRST SYMPTOMS EPISODE

- Q57 Gather information regarding the first episode of active psychosis. Determine whether there was ever a return to premorbid functioning after symptoms started. This distinguishes episodic from chronic illnesses.
- If you find out that the episode is chronic (or one long continuous episode), return to Q5 and code symptoms in EVER column into CURRENT/MOST RECENT COLUMN.
- Q60 Try to determine how many episodes the subjects have had during their lifetime. When doing this, remember that subjects are considered out of episode when they have returned to their usual selves for at least 2 months with no active or residual behaviors.

When the most recent episode is being described, onset and duration information for that episode should be coded.

- Q61 If you suspect autism on the basis of the Medical History section or other information, specify information in the margins and on attached sheets.

In autistic disorder there often are disturbances in communication and in affect that suggest schizophrenia. However, the additional diagnosis of schizophrenia is made only if prominent delusions or hallucinations are also present. For further information on diagnostic criteria for autistic disorder refer to the DSM-III-R section on pervasive developmental disorders - autistic disorders.

DELINEATION OF CURRENT OR MOST RECENT EPISODE

Refer back to Q2 for onset and duration of this episode.

- Q62-66 Note the overlap between psychosis and other psychiatric and medical disorders that have already been assessed (specifically, depression, mania, alcohol use, drug use, medical problems and/or the use of prescription medications). This is critical for the diagnostic process.

PRODROMAL AND RESIDUAL SYMPTOMS

- Q70-70p This section of the interview explores changes from usual behavior that may precede periods of active psychosis or appear between them. Behaviors described are relatively persistent. Establish the duration of the period during which the subject reported experiencing the behaviors described more or less continuously.

Some items included for prodromal and residual periods may appear to overlap with active symptoms. The distinction between active and prodromal items is the intensity of the subject's conviction that these experiences are true/real.

The prodromal period will refer to the period prior to the onset of the active psychosis. This may be less than 1 year.

The residual period will refer to the period after the active psychotic phase. This also may be less than 1 year.

↙ (If there are multiple psychotic episodes with true return to premorbid function (2 months or more) in between, then ask in reference to the most recent episode. Otherwise treat it as a single episode and ask about the year prior to the onset of psychosis.

If there is no specific information on the duration, use the date of current episode. Since these items are for the duration of prodromal and residual phases, be careful not to put down the date of the first psychotic symptom. It is best to have an estimate of the duration.

SCHIZOAFFECTIVE DISORDER

Q71-80 You will be provided with a step-by-step procedure for determining the history of schizoaffective disorder. If the subject has previously met the criterion for an affective disorder, then the overlap between the affective disorder and the psychotic disturbance must be determined. If the core criterion of affective disturbance (i.e., depressed or elated mood) has not been met, then you may skip to the next section. If the criteria for an affective disorder have been met and the affective episode has been described previously, then you may skip to questions regarding the overlap between syndromes. If, however, the affective episode that overlaps with psychotic symptoms has not been described previously (i.e., it is not the current or worst episode already noted), then you must establish that the affective episode being described meets specific criteria. In actuality, very few subjects will be asked about specific criteria for affective syndromes since they will have been described previously.

For those subjects for whom it has not been established that they met criteria for an affective disorder concurrently with active psychotic symptoms, review the Symptom checklist provided. The probes listed in the Depression and Mania sections may be applied to the checklist to facilitate this.

Q78-79 The psychosis can occur before or after the affective
Q88-89 syndrome. These questions assess a period of non-overlap.

Q80 Score yes if <30% of the time affective disorder was
Q90 overlapping with psychosis.

Brief = <30% (Use as a general guideline and make marginal notes.)

PATTERNS OF SYMPTOMS AND SEVERITY

Q92-93 "Using the information collected previously concerning onset, symptoms, and hospitalization, classify the course of the subject's illness into one of the following patterns. Although the subject may not fit any of these patterns perfectly, select the one that most closely approximates his course. These ratings should be made descriptively, without trying to infer what the course might have been had the subject been untreated." (CASH)

Section L

SCHIZOTYPAL PERSONALITY FEATURES (BIPOLAR CENTERS)

This section provides diagnostic criteria for schizotypal personality features using DSM-III-R.

The Schizotypal section is used only if there is no psychosis. Therefore, if the Psychosis section is completed, do not administer the Schizotypal section because the information will have been collected in the prodromal part of the Psychosis section.

You may use multiple sources of information to decide whether or not to administer this section (subject's behavior or appearance during the interview, information from the previous sections of the DIGS interview, e.g., psychosis screen, overview, reports from relatives.) The following are hallmark features of schizotypal personality disorder:

A pervasive pattern of deficits in interpersonal relatedness and peculiarities of ideation, appearance and behavior. Ideas of reference, excessive social anxiety, odd beliefs or magical thinking that influences behavior or appearance, odd speech, inappropriate or constricted affect, suspiciousness or paranoid ideation.

When you are uncertain of whether the subject is displaying the above behavior, the questions should be asked. This section is not completed if the subject has ever had psychoses. For those with another psychiatric illness, it is concerned with the subject's usual functioning independent of that illness (e.g., when not depressed in a person with major depressive disorder). This should not be scored positive if this behavior appears only during heavy alcohol or drug use.

MODIFIED STRUCTURED INTERVIEW FOR SCHIZOTYPY (SIS)
(SCHIZOPHRENIA CENTERS)

Interviewer Instructions

Modified by Stephen V. Faraone, Ph.D.; John R. Pepple, Ph.D.;
and Ming T. Tsuang, M.D., Ph.D. for use
in the NIMH Genetic Linkage Initiative

This training manual should be used in conjunction with the
original training manual for the SIS (Version 1.5), which was
developed by Kenneth S. Kendler, M.D.

Design of the Modified SIS

The Structured Interview for Schizotypy (SIS; Kendler, 1989) was originally developed to assess a broad array of "schizotypal" symptoms and signs. We have modified the SIS to assess signs and symptoms to meet:

- a) DSM-III-R criteria for schizotypal, schizoid, and paranoid personality disorders;
- b) DSM-IV criteria for schizotypal personality.

Administration of the SIS

The SIS is designed to be administered after an Axis I instrument like the DIGS. The psychosis section of the DIGS training manual (page 36) states that the SIS should be administered 'if there is no evidence, from any source, of any psychosis or if the experiences reported did not last persistently throughout the day for one day or intermittently for a period of 3 days.' However, if an interviewer suspects psychotic symptoms and completes the psychosis section, but is not able to gather enough information to make a diagnosis, he should then complete the Modified SIS. Accordingly, the SIS should be skipped out of only if a psychotic diagnosis can be made based on the information gathered in the psychosis section of the DIGS. The intent of the SIS is to pick up psychotic-like symptoms, and should be administered in cases where suspected psychotic symptoms are not captured in the psychosis section of the DIGS.

Although somewhat more structured than the DIGS, the SIS is essentially a semi-structured clinical interview. As such, it is appropriate and necessary to incorporate information obtained from the subject in informal or "unstructured" conversation when relevant to item content. Information and observations from the DIGS interview can also influence the clinical ratings made as part of the SIS.

The SIS is comprised of four types of items: 1) "Closed Option" items; 2) Field-coded items (Items 11, 36, 44, 53a, 54a, 55a, 56, 58d, 59c, 65, 68-70, 71a, 85b); 3) Global assessment ratings; and 4) ratings of clinical observations during the interview.

The majority of the items are the "closed option," self-report items. The three other types of items are all interviewer ratings.

The field-coded items are more open-ended questions in which the interviewer probes an area of interest and makes ratings based on the subject's descriptions of symptoms and behaviors. For these items, the onus is on the interviewer to elicit sufficient information to make these ratings. To obtain this information, follow-up questions may be

needed on closed option items linked to a field-coded rating. For example, when a positive response is elicited, it is important to evaluate whether there is a realistic basis for the symptom and whether the symptom or behavior is deviant from the subject's cultural or subcultural norm. This is especially important on the dimensions most closely linked to psychosis (ideas of reference, suspiciousness, magical thinking, illusions, and psychotic-like phenomena). You should always ask the subject to describe the phenomena endorsed and how frequently it occurs. When assessing subcultural deviance you should use probes such as 'is that common practice in your church (among members of your group, etc.)' at the time that the closed option item is endorsed.

The global assessment ratings are a second type of interviewer rating. These ratings are judgments made by the interviewer at the completion of each section based on all responses relevant to a common content area (e.g., introversion, social anxiety). These ratings are made on a 0 ("ABSENT") to 6 ("MARKED") Scale, with low ratings indicative of normality and high ratings indicative of pathology. Those beliefs and behaviors which occur frequently and/or that would be considered to be culturally or subculturally deviant and/or which have no realistic basis should be given the most weight.

The ratings of clinical observation are a third type of interviewer rating (found at the end of the DIGS, pages 131-137). These ratings are made at the completion of the interview session and are based on observations made during the administration of the DIGS, Modified SIS, and FIGS. For the most part, the ratings are made on a 5-point scale ranging from 0 ("normal") to 4 ("pathological"). The exceptions to this rating scale range are items #1 - Eye Contact (page 131); #12 - Rate of Subject's Speech (page 133); and #13 - Amount of Subject's Speech (page 134). For these three items, the range from normality to pathology is not as clear-cut, but there are defined anchor points to help the interviewer make an appropriate rating.

Guidelines for the Interpretation of Symptoms

There are several issues pertaining to the interpretation of symptoms which arise in the SIS interview. A major interpretive problem raised by the SIS is how to deal with "schizotypal" symptoms that arise in the context of Axis I disorder. As schizophrenic subjects will not be interviewed routinely on the SIS, this problem is most likely to occur with Axis I disorders such as delusional depression or delusional disorder. Kendler has suggested two options for dealing with this issue: 1) try to rate "pure" Axis II pathology, i.e. mentally try to eliminate from consideration all schizotypal symptoms experienced during Axis I disorder; or 2) to effectively ignore the Axis I pathology. Since the first approach is very difficult to put into practice, Kendler recommends the second approach. For example, if a respondent had a brief delusional depression (4 weeks in duration) and is currently 50 years of age, the episode should influence the overall rating of SIS items, but only very slightly.

A second problem in interpretation of symptoms is unconfounding symptoms and physical problems. This is generally rare and thus was not built into SIS. The general rule is: If symptom is not clearly psychological, rate it absent.

A third issue in the interpretation of symptoms is the cultural and subcultural background of the subject. As noted previously, when rating any items, it is important to understand, as much as possible, the subject's cultural or subcultural experiences so as to be able to clearly determine whether something is deviant or accepted practice within those cultural or subcultural norms. For our purposes a subculture refers to a relatively large group of people who share a common belief (e.g., the belief in voodoo in Haitian culture). However, simply sharing a belief with one or two other people would not qualify as a subculture. In judging subcultural deviance it may be helpful to determine whether a person was raised in that particular subculture as opposed to gravitating to it later in life (e.g., an adult convert to the Jim Jones religious cult). You may also want to probe whether a person has some unique beliefs that are deviant from their subculture.

A fourth issue is the time frame for observation. Our modified SIS is solely interested in enduring personality attributes as an adult. (Sections for Kendler's version on childhood, adolescence, and for the last 3 years have been eliminated). In making the lifetime adult ratings for the field-coded and global ratings, the general rule is that both severity and chronicity be factored into these ratings. If behavior has changed over time, ratings should reflect behaviors most characteristic of an individual as an adult.

Guidelines for Administration and Scoring

A. "Closed Option" items

These items are to be read exactly as written and the respondent's answer recorded for one of the response options. The respondent, when in doubt, needs to be encouraged to choose a single best response. If the respondent fails to understand the item, it is permissible to explain, but deviate as little as possible from the form of the question. As previously noted, however, the interviewer may need to use follow-up probes in order to make field-coded and global ratings.

B. Field-coded items

These items generally involve some kind of more open-ended questioning of the subject. If information obtained from questions provided is not sufficient to make the rating, additional questioning is permitted. The rating should reflect the answer you feel is most valid. This rating should be based on: a) the respondent's verbal and nonverbal behavior; and b) clinical intuition. But don't make major "leaps" of intuition. Stick to what you observe and judge.

C. Global Assessment Ratings

The global ratings represent your estimate of clinical significance (the frequency and possible realistic basis for the symptom) and departure from normality (deviance from cultural and subcultural norms). These ratings are based on information obtained over the entire diagnostic interview, including instruments in addition to the SIS. Kendler's recommended procedure is to try to code as you go along. However, new information may appear which requires you to return and change scoring. For individuals who may be difficult to rate during the interview, Kendler recommends making an initial attempt and then reviewing scores after the interview is completed. Even if coded at the time, standard practice should entail reviewing and finalizing all global ratings after the interview is completed.

In developing the modified SIS, coding conventions have been adopted to facilitate global ratings. In general, the response options of "closed option" and field-coded items are number coded (0,2,4,6) to correspond to the four anchor points (absent, mild, moderate, marked) of a global assessment rating. This convention has been adopted so the interviewer can quickly determine the direction of responses (normal versus pathological) for all items pertinent to a global assessment rating. Use of this coding convention does not mean that a four option response item is a 7-point scale. It most emphatically is not. The subject (for "closed option") and the rater (for field-coded items) must choose one of the options provided.

Kendler's descriptive anchor points for the 7-point global assessment ratings should be used in making final ratings. These are provided below:

- "0" "Virtually no evidence of symptoms in area assessed or just a few clinically insignificant responses."
- "1" "A few symptoms present, but very mild and clinically not significant." (Should be used relatively commonly)
- "2" "Symptoms are noticeable, but pretty subtle and without clinical significance."
- "3" "Symptoms clearly present and of some clinical significance."
- "4" "Symptoms definitely present, have some clinical impact, but not severe."
- "5" "Symptoms quite pronounced but not at extreme of severity."
- "6" "Symptoms present and quite severe."

In general, the global score should take into account: a) the frequency of the symptom; b) the possible realistic basis for the symptom; and c) deviance from subcultural norms. The global score is not simply an average of component item scores. Rather, when giving a global score, some items are weighted more heavily than others. Symptoms considered "milder" are weighted less than more severe symptoms in a given dimension. Sometimes a single deviant symptom of sufficient severity can heavily influence a rating, even in the absence of pathology on other items in that dimension.

D. "Observed During Interview" Ratings

These ratings are also based on your observations and impressions of a respondent during the entire interview. Thus, information obtained during an informal "chatting" period or an Axis I interview (i.e. the DIGS) should be used. To assess disorganization of speech/thought, it is especially important for the respondent to have an opportunity for uninterrupted speech about a single topic. This is not provided for in the highly structured SIS. One such opportunity in the DIGS might be the respondent's narrative of any psychiatric history.

SUMMARY OF MAJOR SIS MODIFICATIONS

1. Social Isolation:
 - a. Some adaptation of items Q1 and Q2 to meet DSM-IV criterion 6 for schizotypal personality.
2. Introversion:
 - a. Skip out added after Q13.
3. Sensitivity:
 - a. Original SIS items.
4. Anger to Perceived Slights:
 - a. New section added (Q20-24) to meet DSM-III-R criterion A.6 for paranoid personality disorder.
 - b. New items: adapted items from the SID-P (Q20-23) and a global rating (Q24).
5. Social Anxiety:
 - a. No change to original items (Q25-30).
 - b. Item added (Q31) to meet DSM-IV criterion 2 (excessive social anxiety) for schizotypal personality.
6. Ideas of Reference - Being Watched:
 - a. Item added (Q39) to meet DSM-IV criterion 2 for schizotypal personality plus a global rating (Q40).
7. Ideas of Reference - Seeing Meanings: Deleted
8. Ideas of Reference - Remarks:
 - a. Possible probe added for "dropping hints" item (Q45)
9. Suspiciousness:
 - a. Original SIS items.
10. Pathological Jealousy:
 - a. Two adapted SID-P items (Q58-59) and a global rating (Q60) added to meet DSM-III-R criterion A.7 of paranoid personality disorder.

11. Magical Thinking: Original SIS items.
12. Illusions: Deleted a series of "closed option" items.
13. Psychotic-like Phenomena:
 - a. Changed order of some questions (Q82 and Q82a)
 - b. Doubled up "thought" and "emotion" questions (Q83-85, Q85a, b) for a net reduction of 5 items.
14. Sexual Anhedonia:
 - a. Added sexual experience (Q87) and desire (Q87a, Q88) items, if needed, to meet DSM-III-R criterion A.4 for schizoid personality disorder.
 - b. Added global rating for sexual anhedonia.

STRUCTURED INTERVIEW FOR SCHIZOTYPY (SIS)
VERSION 1.5 - INTERVIEWER INSTRUCTIONS

Kenneth S. Kendler, M.D.

August 1989

STRUCTURED INTERVIEW FOR SCHIZOTYPY (SIS)

VERSION 1.5 - INTERVIEWER INSTRUCTIONS

Kenneth S. Kendler, M.D.

August 1989

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General Comments

The SIS is a structured interview instrument designed to assess a broad array of "schizotypal" symptoms and signs. The SIS is designed to be administered after an Axis I instrument such as the SCID, SADS or DIS. There may be some overlap between the psychosis section of these interviews and the SIS section on ideas of reference (sections F-H) and psychotic-like phenomena (section M). In our experience, this has not proven to be a problem, but interviewers will occasionally note the repetition. It is much better in our experience to give the SIS after rather than before an Axis I instrument.

One important question that will need to be decided by each individual user of the SIS is whether it is meaningful to complete the SIS on an individual with a clearcut diagnosis of schizophrenia. In the context of genetic studies, where there may be an implicit hierarchy with schizophrenia superseding schizotypal personality disorder, it may not be considered efficient to have the SIS completed by individuals with schizophrenia. Although there is a considerable overlap in the symptoms of schizotypy and residual schizophrenia, we do not recommend that it be used to detect symptoms of residual schizophrenia.

Another important issue is how to deal with "schizotypal" symptoms that may arise in the context of an Axis I disorder. Aside from schizophrenia, the most common problems that are likely to be confronted in this regard are delusional depressions and paranoid disorder. There are two broad approaches that can be taken in rating the SIS with such individuals. First, one can attempt to eliminate all schizotypal symptoms experienced during the Axis I disorder and hence rate "pure" Axis II pathology. While this may sound good, it is, in fact, quite difficult to put into practice. You will sometimes find yourself asking questions about the temporal relationship between the sad mood and feelings of being watched that the subject may have experienced years ago. The second approach is to effectively ignore the Axis I pathology as you go through the SIS. The wording of the SIS emphasizes "how you are in general." If the subject has had one episode of delusional depression of 4 weeks' duration and is currently 50 years of age, clearly that episode should influence only very slightly the overall rating of SIS items. In general, we recommend the second approach - that is, ignoring Axis I disorders as you go through the SIS.

Yet another fortunately less frequently confronted problem is unconfounding symptoms and physical problems. Due to its rarity, this has not been "built in" to the SIS, except for out of body experiences (N.3-4). However, if, in your judgment the symptom is clearly not psychological in origin, code it as absent. For example, if in response to L.2, he said he had a ringing in his ears ever since an explosion at work, that should not be rated as an auditory illusion.

Time frame is a critical problem in assessment of "personality attributes" that has no ideal solution. On the one hand, we are, in this interview, mostly interested in enduring personality attributes. Yet, on the other hand, some of these items do change over the course of a person's life due to physical and emotional illness and the aging process itself.

There are three sections that have specific time frames: A - childhood, B - teenage years, and C - last 3 years. Otherwise, we are trying to get the subjects to give us a picture of "how they typically are." Therefore, if he says, in response to an item such as sensitivity or suspiciousness, "Well, since last year I've been X, but before then I've been Y," you should respond, "We are interested in how you generally have been as an adult." This will sometimes be frustrating for both the subject and the interviewer but is the best of several possible solutions.

For subjects who are younger than 22, there will be some overlap between section C (last 3 years) and section B (ages 13-19). This will also be obvious in section O. Note, however, that a subject younger than 20 will not be asked items 0.1-0.9.

In scoring field-coded and global items, you will have to make judgments about how to average over time. For example, how should you score an individual in ideas of reference who relates a several-month episode 5 years ago when, in the context of a stressful job situation, he developed the idea that everyone was talking about him at work, but who now realizes that this was his imagination? It would be incorrect to score this individual as a 1 or 2 on the global IOR item, as these should be reserved for individuals with more chronic and severe symptoms. On the other hand, it is also incorrect to score such an individual a 6 or a 7, as these should be reserved for people with no or only trivial symptoms.

In the SIS interview, it is appropriate and necessary to use information obtained either in an unstructured "chatting" period with the subject or from other instruments. For example, if the subject has spoken previously of IOR, you should use this information in section F. In a case like this, you might re-phrase F.1 as follows: "A few minutes ago, you were telling me of a feeling you had of being watched. I'd like to ask you a few more questions about that now. First, how often have you ..."

PROBES are not to be read routinely, but only to be used if the subject does not appear to understand or asks for clarification of initial question. These are guidelines. In general, read the probe as written first, but if there are still problems, then try to use your own words to explain goal of the item.

Unless otherwise specified, responses should be marked with a clear "X" in the middle of the box. It is strongly recommended that you use either a dark pencil or--even better--an erasable pen. It is unwise to

use a regular pen, because the subjects will change their answers or you may change your opinion on a field-code or global item, and it is very messy and hard on reviewers and data entry personnel to see crossing out, etc. On the other hand, in many studies, photocopies of the SIS will be made. Beware of using light pencil, because it will not copy well.

The SIS contains 4 kinds of items and different rules apply to each item.

1. Unless otherwise specified, the item is a "closed option" item. The vast majority of SIS items are of this variety. For these items, your goal as interviewer is to read the item exactly as written and record the subject's answer. If the subject does not appear to understand the wording of the item, you should repeat it a second time without change. Then if the subject still does not comprehend, it is permissible to modify or explain the item. Deviate as little as possible from the form of the question when explaining. You are obliged to get the respondent to reply with one of the response options. If he does not, you must repeat the relevant options to the subject. For example, if the options are always often, sometimes or never and the subject says "not too often," you should say "Well, would that be often, sometimes, or never." You can assume by his response that the option "always" would not be under consideration as a response. Under what circumstances, after the subject has given an answer to this kind of item, can you repeat the question, implicitly challenging the validity of the subject's initial response? The answer is only when you feel the subject has not understood the question. That is, if you feel that the subject has understood the question but is not responding truthfully, you should not challenge the subject's answer, but just record what has been said.
2. Fieldcoded items: these are noted by the term FIELD CODE (see for example, item C-10). Here, you are to code the answer that you feel is most valid. Thus, you can rely on the respondent's verbal and non-verbal behavior and your own clinical intuition. In general, don't make major "leaps" of intuition. Try to stick pretty closely to what you see and judge. One way to think about these items is to consider how you would defend, to another clinician, your judgment. If you feel that the regular question (with probes, if provided) does not give you sufficient information to score a fieldcoded item, you are permitted to ask any additional items necessary.
3. Global Assessments - Global ratings (all on a 1 MARKED to 7 ABSENT scale) are to represent your estimate of clinical significance and departure from normality of symptom dimension being assessed. It is, therefore, possible for the subject to have been positive on several items, but for you to give a 7 if, in your judgment, positive responses were clinically insignificant. In general, however, a 6 is probably more appropriate for such individuals,

saving the 7 for those with no significant evidence of symptoms in that dimension. Global ratings are to be based on information obtained over the entire interview, including other instruments in addition to SIS that may be used. In general, it is best to code these items as you go along in the interview, but new information might appear later which may require you to return and change your scoring, so it would generally be suggested that, as you review the SIS, you pay particular attention to the global ratings. There will be interviews where you feel that you do not have enough time to decide on the global scales "as you go." In that case, it is best if you note with a light mark, the score or range of scores you think should be considered.

The average score for global items should differ quite considerably across dimensions. The SIS examines some traits (e.g., introversion, social anxiety, interpersonal sensitivity) that are quite common on the general population. For these traits, scores in the range of 3-5 are very common. By contrast, psychotic-like ideas and ideas of reference are less commonly experienced, so that scores in the 3-5 range are relatively unusual in general populations.

It is difficult to provide any overall guidelines for scoring global items. The following should be of some help: (a) reserve a 7 for those who either have virtually no evidence of symptoms in the area assessed or have just a few clinically insignificant responses; (b) a 6 should be used relatively commonly and indicate "a few symptoms present in this area, but they are very mild and clinically not significant;" (c) a 5 means "symptoms are noticeable, but are pretty subtle." In general, a score of 5 also indicates that you consider the symptoms to be without clinical significance; (d) a 4 means "symptoms clearly present---no doubt about that---and are of some clinical significance;" (e) a 3 means "symptoms definitely present, have some clinical impact, but not severe;" (f) a 2 means "symptoms quite pronounced but not at the extreme of severity;" (g) a 1 means "present and quite severe."

It should be noted that not all items should be equally weighted when giving a global score. Some symptoms would be considered "milder" than others in a given dimension (e.g., *deja vu* is a milder symptom than full depersonalization). In giving a global score, you should take into account the frequency the respondent has the symptom, the possible realistic basis of the symptom, and the deviance of the symptom from subcultural norms.

4. Observed During Interview - These items, all confined to section U, are to be filled out based on your observations and impressions of the subject during the entire contact with him. Thus, information obtained during the "chatting" or Axis I interview should be used. It is ESPECIALLY IMPORTANT, to be able to accurately assess organization of speech/thought, to make sure during your time with the subject that he has an opportunity for several minutes of

uninterrupted speech about one topic. The SIS is highly structured, and if organization of thought were only based on the answers to the SIS, it would be possible to seriously underestimate pathology in this area; some individuals can be kept "organized" by structure, but will demonstrate considerable disorganization and "woolliness" if allowed to speak "freely" about a subject.

Respondent Booklet - For most subjects, the respondent booklet (abbreviated RB here and in the SIS), which lists response options to questions, makes the interview process considerably easier. However, for some respondents with low intelligence or reading ability, the RB can sometimes be more of a hindrance than a help. In that case, just take the RB away from the subject and put it away. The RB is only used when a single set of response options is used for a whole series of questions. In version 1.5 the RB should be introduced at question A.4. We suggest something like:

In this interview, we will sometimes have a number of questions all with the same possible answers. To make it easier for you to follow along, we have prepared this booklet which lists the possible answers to questions. I'll be telling you when we should be using this booklet and what page to turn to. Turn now to page 1 of the booklet.

Whenever the term RB appears in square brackets (e.g., [RB, p. 6]), you should tell the subject to turn to that page of the RB.

At several points in the SIS, especially in section K "magical thinking," a knowledge of the common "magical and superstitious" beliefs of an individual's subculture will be needed to complete the interview. It will be difficult to conduct the SIS on an individual whose subculture the interviewer is not familiar with.

The current version of the SIS was also designed to be administered in Ireland. This requires a few small changes that are indicated in braces {}.

Abbreviations are used throughout the SIS, so that if you are in a situation where the subject or a relative is peering over your shoulder during the interview, nothing potentially offensive will appear in the booklet.

Two abbreviations may be useful. If the subject cannot make up his mind or does not wish to answer a question, write "DK" (for "don't know") in big letters by the item and leave it blank. If the item is not applicable (e.g., if he claims he is never in social situations and cannot answer E. 1-5) then write NA - not applicable.

Question by Question Comments

COVER - Reliability code - If the interview is not part of an inter-rater reliability trial, score "none." If the interview is an inter-rater reliability and the interviewer is the "primary interviewer" (that is, the one asking the questions), also score "none." If the interview is the secondary interview in an inter-rater reliability trial (e.g., the interviewer is just scoring along and not asking questions), then if this is being done in the field, then score field. If it is being coded from tape (audio or video), mark tape. If, on an inter-rater reliability trial, the two interviewers disagreed sufficiently that a consensus booklet taking into account both their perspectives should be prepared, then score consensus. In these latter situations, the number of the primary interviewer should be entered where provided.

Don't forget to record the time you start the SIS. This is the time right before you ask the first question.

- A. CHILDHOOD - The introduction here is to provide a transition from the Axis I instrument to the SIS. This may, of course, be modified to be more appropriate for any given specific interview protocol.
- A.5 This item (like B.12) calls for the average number of close friends that the subject had at one time over the specified time period. If the subject had one close friend from age 3-5, another from 5-7 and another from 8-12, correct answer would be 1, not 3. Do not count immediate family (e.g., siblings) as friends. Use your judgment about more distant family (e.g., cousins). Purpose of item is to reflect subject's capacity to go out and make friends as a child.
- B. TEENAGE YEARS
- B.6 This includes "in school" suspensions.
- B.7 Running away from home - this would not apply when subject leaves home permanently after finishing school, even without parental consent.
- B.12a & b We decided to collapse the global scales for childhood and adolescence. The first global item, social isolation/withdrawal, should summarize your impression of the shyness, social anxiety, social isolation, perceived sense of oddness, not-fitting-in feelings, reported by the subject. The second global items - antisocial traits - should summarize information gathered in B.5-9.
- C. SOCIAL ISOLATION/INTROVERSION - This section has two subsections. The first deals with the objective degree of social activity, involvement of subject, while the second

measures the "self-concept" of subject regarding his relatedness, etc.

In the first part of this section, C.1-C.8, many of these questions are so specific that it is necessary to give a time frame, and we have chosen 3 years. At the end of the section, we inquire whether these last 3 years have been typical.

- C.9 Here you assess overall degree of social isolation. Unlike C.3, you should count people the subject lives with. However, in general, these count for much "less" in scoring social isolation than social activities that require an "active" effort. For example, if a subject has virtually no social activities, but lives with an elderly parent, it is still appropriate to score "MARKED" social isolation.
- C.10 Not every reason given by the subject should be scored here. Use your judgment to decide if a reason given by the subject can realistically explain some of (3) or all of (5) subject's social isolation. Psychiatric illness should not be counted as a reason here.
- C.11 If the last 3 years have not been typical for the subject, we ask you to rate the difference (C.12) and then provide a global rating for his lifetime. This is one area where you may need to ask a number of questions not scripted for you in the SIS. The situations we have most frequently confronted that will apply here are: (1) old persons who, because of illness or the death of their friends, have recently been much more isolated than they have been through most of their lives; (2) women who have small children with the consequent restriction in their social life; (3) people who have recently moved, don't know people in the area, etc.
- C.14 Before this item, we make our final "temporal" shift, with which we stay for the rest of the interview. Note that this wording is repeated before item I.1. If you feel the respondent is drifting, especially if he tends to be responding for how he feels "right now," you ought to repeat a variation of this wording to remind him of the correct time frame.
- C.16 This is the short form of Eysenck's Introversion Scale.
- C.17 This is a shortened version of the Social Anhedonia Scale of Chapman et al.

D. **INTERPERSONAL SENSITIVITY**

- D.3b People will not always understand "touchy." We would suggest trying "easily upset," "I can be testy" or whatever else comes to mind.
- D.4 Only include what the subject says about himself here. Save any observations you may make of subject for section U.

E. **SOCIAL ANXIETY**

Note that the wording of these items is "when you are in social situations." Thus we want answers unconfounded with how often people are in social situations. If someone says "Well, I'm not in those situations very often," your response should be "Well, please answer these questions for the times when you are with others..." Usually family events should not be counted here. However, large family get-togethers, when the subject is not close to many of the relatives, are more like typical "social" situations.

- E.8 You will sometimes have people who respond "sometimes (5)" to items E.1-E.5. In general, the global score for such subjects should be in the 4-5 range.

F. **IDEAS OF REFERENCE PART I - BEING WATCHED**

Although usually these feelings are negative in emotional tone (e.g., "paranoid"), they may be positive in tone (grandiose). One needs to distinguish in F.5 from reality based events (e.g., pretty woman who is looked at) or, more rarely, truly neutral in tone ("pure" ideas of reference). All forms should be scored.

- F.4 Please write legibly in this and other spaces left for you to record subject's responses. You need to write enough detail in these sections so that someone after you could review the material and cross-check your judgment. It is OK to tell the subject "Excuse me for a minute. This is important and I need to write down what you tell me." If you cannot write neatly and thoroughly, make notes for yourself and do the scoring after completing the interview.

Don't forget to ask and record answer to "Why were they looking at you?"

If, after several probings, the subject cannot recall example, just put OK for F.4, NA for F.5 and go on. Try to avoid this happening.

F.5 Reasons for being looked at: This is not an easy item and requires some judgment. Don't hesitate to get the subject to describe in more detail his experiences of IOR to help you assess this.

F.6 "Near to home" refers to areas that the subject visits as part of daily-weekly routine - work, shopping, neighborhood, etc. "Far away" refers to areas subject visits less frequently.

G. IDEAS OF REFERENCE PART II - SEEING MEANINGS

G.1 This is one of the most abstract questions in the SIS. People of low intelligence appear to often not understand this question. Try once or twice to re-phrase concept, but if no progress, check 7 - does not understand and move on. One of the most common false positive answers to this (which is scored as a 7 on G.4) relate to culturally syntonetic religious beliefs. For example, a fundamentalist Christian may have seen a man drunk in public and felt that God was showing her the fruits of sin, etc.

G.5 This is the first of several items with the "PROBE AND ONLY SCORE IF REALISTIC" instruction. This is used to avoid a "false positive" on these items. For example, we interviewed an individual whose boyfriend was the disc jockey on a radio station. He knew when she was driving to work and would often play her favorite songs. Such a person should be scored NO on G.5.

G.7 There is a similar problem of detecting false positives. Here we have taken a more laborious, but more complete, approach in items G.8-9.

H. IDEAS OF REFERENCE PART III - REMARKS (AND BEING LAUGHED AT)

Note the checkpoint after H.3. You skip to H.6 only if the subject states that he has not had the feeling of being talked about and never has felt laughed at.

H.4 & H.5 The parentheses in this item can be a little confusing. If the subject has admitted to being talked about but not laughed at, then read "talking about." If the subject has admitted to being laughed at but not talked about, then read "laughing at." If both, then read "talking about or laughing at."

H.8 Here, as with G.5, we are concerned with screening out false positives. This item has confused a fair number of people, but on several interviews, this item has precipitated the subject to reveal lots of IOR not previously discussed. On this, and some other items in section M (psychotic-like experiences), if the subject looks puzzled and doesn't appear to understand what you are talking about, it is usually safe

to assume he has never had the experience. By contrast, some respondent's have an "Ah-ha" experience, clearly recognizing what you are talking about. Those individuals have invariably had the experiences being inquired about (or are mental health professionals).

H.10 Answers to this series of questions should refer to "how well these statements generally characterize the subject over his adult life" rather than "how much he may be sure these experiences are real." That is, we are interested in the subject's "feelings" even though he may recognize that they are not "real."

H.10a "Center of attention" can mean in either a grandiose or "persecutory" way.

I. SUSPICIOUSNESS

I.5 This question, which attempts to prompt the subject to talk about "conspiracy-like" phenomena, has a high false positive rate. A lot of people respond with such things as "My parents because they wouldn't give me the money to go to college" or "My husband because he didn't want me to get a job," etc. These should be scored as a 7. Score as a 1 or 3 only responses that clearly are pathological - indicating inappropriate suspiciousness.

I.8 Global suspiciousness - You are to rate here on the basis of the self-report. Other aspects of suspiciousness which you observe (e.g., verbal and non-verbal) will be rated in section U.

I.9 Count only objective reasons, such as crime in area, history of being assaulted, raped, etc. Do not count factors which are only "psychological" such as unloved by mother, or raised by adoptive parents, etc.

J. RESTRICTED EMOTION

This is one section where the "scale" of the items switches. That is, for all J.1 items but d, "often" means the absence of restricted emotion, while in J.1.d, "often" means restricted emotion. Don't get these mixed up when you make your global score.

K. MAGICAL THINKING

There will often be some overlap between this section and section M - Psychotic-like phenomena. Many symptoms in section M will also turn up in section K. But this will often not be true in reverse. That is, in general, section K deals with milder levels of pathology than section M.

- K.1 A number of these items have been adapted from the Magical Thinking scale of Chapman et al.
- K.3 This may be obvious from context, or some further questions may be needed here to clarify the deviance of the magical beliefs.
- K.6 Sometimes you will get clearly non-superstitious answers here like, "Go see the doctor for regular check-ups." These should not be scored positive. Slightly more problematic might be religious customs. In general, if they are very common (such as praying, or the use of holy water in Ireland), they should be scored as no. If there is a doubt, score them as yes and then record deviance from subcultural norms in K.11.
- K.8 Note this checkpoint. If the subject did not admit to superstitions in K.4 or to superstitious practices to keep evil away in K.6, then go to K.14.
- K.9 You are to here read to the subject the superstitious belief he had admitted to. You will then be asking him questions about these beliefs.
- K.10 & K.11 These items refer to both "superstitious beliefs" (items K.4-5) and "things to keep evil away" (items K.6-7).

K.12 Relist the beliefs here if needed. If clear from context, they need not be relisted for the subject.

L. ILLUSIONS

If you are sure that "illusions" derive entirely from physical cause (e.g., very poor vision resulting in visual misperceptions or hearing problem resulting in "ringing"), code as never. Also, if illusions only occur upon drifting off to sleep or upon awakening, or only during dreams, code as never.

- L.6 A particularly common reason for a positive response to this item has been a recently departed relative or close friend.
- L.8 Do not rate if related only to drug use. Do not inquire about this routinely; but, if the subject mentions it, inquire about these items at times when he was not on drugs.

M. PSYCHOTIC-LIKE PHENOMENA

M.15 Further probes may be needed here to obtain enough information to rate this item.

N. DEREALIZATION/DEPERSONALIZATION

O. **ANTISOCIAL TRAITS/IRRITABILITY - ANGER**

As the name implies, this section is a bit heterogeneous.

- O.3 Give enough detail for unusual crimes to allow coding of other items if needed.

P. **SUICIDAL THREATS**

This section refers to entire life - not just adulthood.

Q. **AFFECTIVE INSTABILITY**

R. **EMPTINESS**

S. **IMPULSIVITY/NON-CONFORMITY**

- S.6 Don't forget to record the time the SIS is finished.

U. **OBSERVED DURING INTERVIEW**

You should score this section based on total impression of the subject during entire contact, not just behavior during SIS.

- U.4 This global item would include all aspects of rapport - that is, how emotionally connected you felt with the subject. Include eye contact, body language and emotional rapport.

- U.5 This item can be hard to score if the affect is very inappropriate. The correct way to approach it is to just score the range of affect, appropriate or not. Item U.6 will then be used to score the inappropriate affect.

- U.6 This item scores the active process of inappropriate affect - not the absence of appropriate affect, which is measured in U.5. If an individual has flat affect but does not express inappropriate affect, then he may score quite low in U.5, but high, and in the "normal" range, in U.6. As in many items in this section, in scoring this item, you must judge the combination of severity and frequency. If the subject has one episode of quite bizarre affect (laughing in a very inappropriate way when discussing a serious topic), a score of 3 or even 2 may be correct.

- U.7 As in U.6, you must use your judgment about how to weigh frequency and severity. One quite labile outburst of emotion in an interview could merit a 3 or, if especially inappropriate and rapid in onset, perhaps even a 2.

For U.10-U.15, you must have attempted at some point in the interview to get the subject to speak freely on a neutral

subject in an "open-ended" way. Relying only on short responses to highly structured questions can substantially underestimate thought disorder.

- U.10 Goal-directedness of thought. Here you would score more highly a subject who digresses and never gets back to subject (tangentiality) than someone who digresses but does eventually get back to the point (circumstantiality). Also count here if the subject's answers do not appear to correspond to your question, but only if you are sure that this was not a result of the subject's having misunderstood the question. This item can be hard to score if poverty of speech is present. You must then judge what percentage of the speech is goal-directed. That is, this section should be scored not on the absolute amount of digressions, derailments, etc. but on the amount relative to the total speech sample given.
- U.14 Poverty of content means that speech is full of "filler" words ("uhms", "ahs", "wells", etc.) and does not communicate much meaning.
- U.15 Global Organization of Speech/Thought. Here, emphasis should be on the degree to which speech effectively communicates information (not counting factors such as local accents, poor articulation, etc.). Also, do not count "higher" levels of organization such as an inconsistency in the subject's responses.
- U.25 Attention-seeking. This item taps how much the subject is trying to induce your sympathy, getting you to be supportive, become personally involved, etc.
- U.39 Appearance/attractiveness refers only to physical features, not to grooming, hairstyle, etc.
- U.45 This item is included for family, twin studies, where blind refers to knowledge about psychopathologic status of proband.

ALWAYS REVIEW YOUR INTERVIEW PRIOR TO TURNING IT IN!

Section N

COMORBIDITY ASSESSMENT

It is difficult to determine the temporal relationship between substance abuse and other psychiatric disorders before those disorders are clearly defined by the interviewer and subject. This section was designed to avoid this problem by referring back to those sections after they have been completed. It asks about which disorder started first, then about the temporal relationship between substance use and psychiatric symptoms in various episodes.

Q1 Mood changes = Defined as the occurrence of major affective disorder or psychosis. If there is no major mood disorder or psychotic symptoms, dysthymia can be used.

Alcohol/Drugs = Use or abuse of alcohol or drugs.

Problem = Defined as two symptoms related to alcohol, marijuana, or any street drug use.

Note in margins when overlap does or does not occur.

Section 0

SUICIDAL BEHAVIOR

This is a nondiagnostic section that assesses the frequency and form of suicidal behavior. If the subject states that he never attempted suicide, the rest of the section is skipped. If the subject reports more than one suicide attempt, he is asked to determine which attempt was the most serious and to describe that attempt. Severity may be quite idiosyncratic since lethality and intent have not been shown to be related (i.e., a lethal attempt may not reflect intent to die and a nonlethal attempt may reflect a significant intent to die). After a complete description has been elicited, rate the most severe suicide attempt reported in terms of lethality and intent. Even the most minimally lethal attempt reported is to be recorded and rated. Establish the context for the suicidal behavior by asking if the behavior occurred during a period when the subject was depressed, manic, abusing alcohol, abusing drugs, and/or psychotic.

Section P

ANXIETY DISORDERS

This section provides diagnostic criteria for Obsessive Compulsive Disorder (OCD), phobic disorders and panic disorder using DSM-III-R, RDC, and modified RDC (Gershon).

OBSESSIVE COMPULSIVE DISORDER

The essential feature of this disorder is recurrent obsessions or compulsions or both, sufficiently severe to cause marked distress, be time-consuming, or significantly interfere with the subject's normal routine, occupational functioning, or usual social activities or relationships with others.

Obsessions are persistent ideas, thoughts, impulses, or images that are experienced at least initially as intrusive and senseless. The subject attempts to ignore or suppress such thoughts or impulses or to neutralize them with some other thought or action. The subject recognizes that the obsessions are the product of his own mind, and are not imposed from without.

Compulsions are repetitive, purposeful, and intentional behaviors that are performed in response to an obsession, according to certain rules, or in a stereotyped fashion. The behavior is designed to neutralize or to prevent discomfort or some dreaded event or situation.

- Q1-1e Obsessive brooding or rumination about potentially unpleasant circumstances or possible alternative actions, such as occurs in a major depressive episode, is not a true obsession since these symptoms are not experienced as senseless.
- Q1b If the example given is related to feeling guilty only about weight loss, code No.
- Q2-3 In administering this section, it is important to bear in mind that excesses in some activities such as eating, drinking, or gambling, may be described by the subject as "compulsive" but in fact are not true compulsions because he derives pleasure from the activity and may resist it only because of secondary adverse consequences.
- Q10 The original and modified RDC specifically excludes episodes of OCD occurring concurrently or within 2 months of episodes of major or minor depression, schizoaffective disorder, or schizophrenia.

It is also important to note that bizarre, overvalued ideas that the subject will not acknowledge as possibly unfounded, even after discussion, may suggest schizophrenia. In schizophrenia, stereotypic

behavior is common, but it is usually due to delusions rather than to true compulsions. However, in some cases of OCD, there may be bizarre delusions and other symptoms unrelated to the disorder that justify the additional diagnosis of schizophrenia.

PANIC ATTACKS

Panic attacks typically begin with the sudden onset of intense apprehension, fear, or terror; often there is a feeling of impending doom. Much more rarely, the subject does not experience the attack as anxiety, but only as intense discomfort. Panic attacks can occur in a variety of anxiety disorders (e.g., panic disorder, social phobia, simple phobia, post-traumatic stress disorder). In determining the differential diagnostic significance of a panic attack, it is important to consider the context in which the panic attack occurs. Was the panic attack unexpected and not associated with a situational trigger? Did the panic attack immediately occur on exposure to, or in anticipation of the situational trigger?

PANIC DISORDER

The essential features of panic disorders (with or without agoraphobia) are recurrent panic attacks. The panic attacks usually last minutes or, more rarely, hours. The critical differences between panic disorder, generalized anxiety disorder, simple and social phobias are outlined below.

PANIC DISORDER VERSUS GENERALIZED ANXIETY DISORDER

Before beginning to inquire about the occurrence of specific types of discrete symptoms that occur during panic attacks, be careful to differentiate between generalized anxiety disorder (which will not be diagnosed) and panic disorder. These disorders differ, not necessarily in the occurrence of discrete symptoms but in the suddenness of symptom onset in panic and the relative rapidity with which symptoms disappear. Typically subjects with panic disorder develop varying degrees of nervousness and apprehension (i.e., anxiety) between attacks. When this is focused on the fear of having another attack (as is usually the case), no additional diagnosis is made.

PANIC DISORDER VERSUS SIMPLE AND SOCIAL PHOBIAS

For differential diagnosis, it is also critical to note differences between panic attacks and phobias. Initially panic attacks are not triggered by situations in which the subject is the focus of others' attention (as in social phobia). The unexpected aspect of the panic attacks is an essential feature of the disorder, although later in the course of the disturbance certain situations, e.g., driving a car or being in a crowded place, may become associated with having a panic attack. These situations increase the likelihood of an attack occurring at some time while the subject is in that situation, although not immediately upon entering the situation, as in simple phobia. In such a

situation, the subject fears having a panic attack, but is uncertain about when it may occur or if it will occur at all.

For all subjects, determine if he has ever had at least one circumscribed episode of intense fear or apprehension with sudden onset (not associated with life threatening or clearly frightening situations or due to a known physical cause, such as amphetamine or cocaine use or hyperthyroidism) accompanied by at least two of the associated symptoms listed in Q13, which reaches peak intensity within 10-15 minutes.

Panic attacks typically begin with the sudden onset of intense apprehension, fear, or terror. Often there is a feeling of impending doom. Much more rarely, the subject does not experience the attack as anxiety, but only as intense discomfort. During most panic attacks, there are more than six associated symptoms. (Attacks involving four or more symptoms are arbitrarily defined as panic attacks in DSM-III-R; in RDC, the number is "three in the majority of attacks" for a diagnosis of "definite.")

Q12a Predictableness - Some people learn that they are likely to have a panic attack in certain situations. They will describe them as predictable, i.e., when shopping, when on the bus, when on the subway, when going over a bridge.

Q20 Cocaine, amphetamines, and decongestants

PHOBIC DISORDER

Agoraphobia is a fear of being in places or situations from which escape might be difficult (or embarrassing) or in which help might not be available in the event of suddenly developing a symptom(s) that could be incapacitating or extremely embarrassing. Common agoraphobic situations include being outside the home alone, being in a crowd or standing in line, being on a bridge or traveling in a bus, train, or car.

Social Phobia is a persistent fear of one or more situations in which the subject is exposed to possible scrutiny by others, and fears that he may do something or act in a way that will be humiliating or embarrassing.

In Simple Phobia, there is also a persistent fear of one or more situations or objects, but it is not a social situation involving the possibility of humiliation or embarrassment.

Some phobias may fall into more than one category. For both social and simple phobia, exposure to the specific phobic stimulus almost invariably provokes an immediate anxiety response. Marked anticipatory anxiety occurs if the subject is confronted with the necessity of entering the situation and such situations are usually avoided.

Q28 If avoidance has developed, list the fears in the three categories provided:

- 28a Agoraphobic fear
- 28c Social fear
- 28e Simple fear

Also note what motivated the subject to avoid the situation. If avoidance originated either during a limited symptom attack or a panic attack indicate as agoraphobic.

For each fear, ask Q29-38.

Q33 Determine whether the fear is unrelated to a pre-existing Axis I or Axis III disorder.

Axis I - Clinical syndromes other than personality or developmental disorders (e.g., anxiety disorders, mood disorders)

Axis III - Physical disorders

Section Q

EATING DISORDERS (BIPOLAR CENTERS)

This section provides diagnostic criteria for anorexia nervosa and/or bulimia using DSM-III-R.

The eating disorders section is divided into two parts: Anorexia Nervosa and Bulimia. Two screening questions are asked, and if the subject answers no to both questions, he/she skips out of the section because a diagnosis of either anorexia or bulimia is not possible.

ANOREXIA NERVOSA

The essential features of this disorder are refusal to maintain body weight over a minimal normal weight for age and height; intense fear of gaining weight or becoming fat, even though underweight; a distorted body image; and amenorrhea (in females). (The term anorexia is a misnomer since loss of appetite is rare.)

The disturbance in body image is manifested by the way in which the subject's body weight, size, or shape is experienced. A subject with this disorder says he/she "feels fat," or that parts of his/her body are "fat," when obviously underweight or even emaciated. He/she is preoccupied with body size and usually dissatisfied with some feature of his/her physical appearance.

The weight loss is usually accomplished by a reduction in total food intake, often with extensive exercising. Frequently there is also self-induced vomiting or use of laxatives or diuretics. (In such cases bulimia nervosa may also be present.)

Q1-2 Don't hesitate to ask additional open-ended questions that get at the essential features of this disorder. For example, "Did you ever become overly concerned about calories or your weight?"

Q6 Note instruction at the bottom of the table. For women between 18 and 25 years, subtract one pound for each year under 25.

Example: For a 20-year-old woman who is 5'9" and medium frame, the weight criteria would be calculated by $119 - 5 = 114$.

Q10 Specify the illness and whether it was diagnosed by a physician.

BULIMIA NERVOSA

The essential features of this disorder are recurrent episodes of binge eating (rapid consumption of a large amount of food in a discrete period of time); a feeling of lack of control over eating behavior during the eating binges; self-induced vomiting, use of laxatives or diuretics, strict dieting or fasting, or vigorous exercise in order to prevent weight gain; and persistent overconcern with body shape and weight. In order to qualify for the diagnosis, subjects must have had, on average, a minimum of two binge-eating episodes a week for at least 3 months.

Section R

PATHOLOGICAL GAMBLING (BIPOLAR CENTERS)

This section provides diagnostic criteria for pathological gambling using DSM-III-R.

The essential elements to elicit from the subject are the history (if present) of regular participation in and preoccupation with gambling, failure(s) to resist impulses to gamble, and the degree to which the gambling disrupts or damages social, occupational, or recreational pursuits. Characteristically the subject's preoccupation with gambling and participation in gambling increases with stresses. Thus, as the consequences of gambling (debt, disruption of occupational and personal relationships) increase, so may the participation in gambling activity.

- Q1 If the subject answers no concerning having gambled, prompt them with specific mention of lottery tickets, etc.; however, do not consider stock market trading as gambling.

ANTISOCIAL PERSONALITY

This section provides a diagnostic criteria for antisocial personality (ASP) using DSM-III-R.

The antisocial personality disorder is characterized by a long-lasting pattern of impulsive and irresponsible behavior, a craving for excitement and new experiences, and a consistent disregard for the rights of other people. This may manifest in various ways, including lying, "conning" or manipulating others; threatening them or abusing them verbally or physically; and/or engaging in a variety of irresponsible behaviors such as flagrant promiscuity or marital infidelity, irresponsible financial decisions or default of responsibilities, and unstable work habits (quitting without notice, frequent absenteeism, etc.). Subjects with antisocial personality disorder may appear charming and persuasive, or violent and threatening to others--whatever they have found works to get what they want.

ASP frequently coexists with substance abuse disorders, affective and anxiety disorders and somatization disorder. Not only is substance abuse a very common complication of ASP, but substance abuse by itself may also result in irresponsible or violent acts. It may therefore be difficult to determine the cause of a given behavior. However, ASP (by definition) begins before the age of 15 and cannot be diagnosed if behavioral problems did not occur before that age.

The ASP module evaluates the relationship between ASP, conduct disorder, and substance abuse. Research has indicated that subjects without substance abuse problems who had few behavioral problems as children rarely report antisocial behavior as adults. Thus, the module is designed to skip these subjects.

Q1e Includes stealing without confrontation.

Q14 Code yes for the positive symptom that the subjects were never able to sustain a totally monogamous relationship for more than 1 year.

Section T

GLOBAL ASSESSMENT SCALE

The purpose of this rating is to obtain a general, standardized description of the subject's level of functioning during the month prior to the interview. Apply the rating scale to information and observations obtained during the interview. For subjects who are hospitalized during the interview, functioning at the time of admission will be rated.

- Q2 Refers to the subject's functioning at the worst point during the current episode. If a subject is not in a current episode, the "CURRENT EPISODE GAS" score would be ~~000~~. XXX
- Q3 Refers to GAS score during the past 30 days.

SCALE FOR THE ASSESSMENT OF NEGATIVE SYMPTOMS (SANS)

AFFECTIVE FLATTENING OR BLUNTING

Affective flattening or blunting manifests itself as a characteristic impoverishment of emotional expression, reactivity, and feeling. Affective flattening can be evaluated by observation of the patient's behavior and responsiveness during a routine interview. The rating of some items may be affected by drugs, since the Parkinsonian side-effect of phenothiazines may lead to mask-like facies and diminished associated movements. Other aspects of affect, such as responsivity or appropriateness, will not be affected, however.

1. Unchanging Facial Expression

Definition of normal - animation in all regions of the face according to the emotional content of the verbal discourse. The regions of the face being the 1) brows/forehead/nasal root, 2) eyes/nose/cheeks, and 3) mouth/lips. In normal expression, each region is used to convey internal emotional states. For example, in the classic expression of anger, the brows are drawn downward and together, the eyes are squinted, the cheeks raised, and the mouth is squarish and tense or wide open and tense. However, it is rare in an adult population to see such pure/unmasked expressions, although there should be some quality and quantity to expression in all regions of the face. Affective flattening or blunting comes about when all regions of the face are not used or used in a mechanical/unanimated fashion. The most common expressions seen in normal discourse are joy, sadness, and interest. In the expression of these emotions, there are varying changes in the tone of the muscles, this is where the concept of flattening comes into play. The less clearly expression is observed, the more flat or blunt a person is judged to be. This is meant to be taken as a holistic approach in that there can be conversation; however, in this type of interaction with patients, there is also ample opportunity for more discrete/animated expression. So, the SANS/SAPS ratings are meant to be used as a holistic judge of a patients's presentation throughout the interview.

- 0 - No decrease in animation or labile
- 1 - Questionable decrease in expressiveness
- 2 - Mild: Clear demarcation of expression but not pervasive or consistent
- 3 - Moderate: Expression is mostly limited to changes in muscle tonality, but an occasional clear expression may be seen
- 4 - Marked: Expression is limited to slight changes in muscle tonality and no animation or clear indication of emotion
- 5 - Severe: Essentially no expression, even in muscle tonality

U - Unknown/cannot be assessed/not assessed

2. Decreased Spontaneous Movements

- 0 - No decrease (i.e., patient shifts in the chair, crosses legs, moves hands)
- 1 - Questionable decrease
- 2 - Mild: Some decrease (i.e., patient may shift two or three times, may cross/uncross legs twice)
- 3 - Moderate: Patient may shift once or twice and may cross/uncross legs once, one or very few hand movements
- 4 - Marked: Patient may shift position once and no hand or leg movements
- 5 - Severe: Patient sits immobile throughout the interview
- U - Unknown/cannot be assessed/not assessed

3. Paucity of Expressive Gestures

- 0 - No decrease (i.e., patient uses hand gestures, leans forward or backward as an emphasis in conversation)
- 1 - Questionable decrease
- 2 - Mild: Patient usually uses gestures but not as frequently as there is opportunity to
- 3 - Moderate: Patient occasionally gestures but not regularly
- 4 - Marked: Patient only infrequently uses body gestures (hand gestures once in an hour)
- 5 - Severe: Patient never uses body gestures to aid in expression
- U - Unknown/cannot be assessed/not assessed

4. Poor Eye Contact

Definition of normal - Eye contact is used as an aid in expression between two people and is an intricate part of conversation. Normal eye contact goes unnoticed, but deviant eye contact becomes highly noticeable and perhaps disturbing. There are two different elements to consider when assessing eye contact: quality and quantity. Quality of the contact deals with expressiveness of the gaze. The usual expression seen in interviewing is one of interest. This is when the patient looks attentive and appears to be engaged in the conversation. For example, it is accepted to be normal interaction to look at the interviewer when questioned and maintain rapport with an attentive look while answering. If the patient is just staring through you, this does not count as an expressive gaze and should be rated as poor eye contact. The interviewer should feel connected with the patient while the gaze is exchanged.

The second element to eye contact is quantity. This refers to the amount of time spent sharing a gaze. Since there are so many variables involved with making a quantitative estimate (length of interview, kind of interaction due to topic being discussed, eye contact made by interviewer), the assessment will be made as a

function of seized opportunity rather than the actual number of times the patient takes the opportunity to make contact or avoid it. For example, if within an hour there are many opportunities to make eye contact with the interviewer, but the patient only does so about half the time, the rating would be a 3 according to the SANS. Also, the duration of each gaze should be taken into account. For example, if all the opportunities for eye contact are seized, but they are only 1 second in duration, the rating on the SANS should reflect this.

- 0 - Normal: Contact is engaging, e.g., patient is attentive and engaged with the interviewer and seizes all opportunity to make contact
- 1 - Questionable decrease: e.g., the duration of the engaged look is briefer but all opportunities are seized, and gaze is attentive
- 2 - Mild: e.g., duration of gaze is brief (3-4 seconds), approximately 25% of eye contact opportunity is not seized, and gaze is not always engaging or attentive
- 3 - Moderate: e.g., duration of gaze is 1-2 seconds, approximately 50% of eye contact opportunity is not seized, and gaze is usually not engaging or attentive
- 4 - Marked: e.g., duration of gaze is less than 1 second, 75% of eye contact opportunity is not seized, and gaze is rarely or never engaging or attentive
- 5 - Severe: e.g., gaze is fleeting, never engaging or attentive, and almost never is opportunity seized
- U - Unknown/cannot be assessed/not assessed

5. Affective Nonresponsivity

Failure to smile or laugh when prompted may be tested by smiling or joking in a way that would usually elicit a smile from a normal individual. The interviewer may also ask: "Have you forgotten how to smile?" while smiling himself.

- 0 - Not at all
- 1 - Questionable decrease
- 2 - Mild: Slight but definite lack in responsivity
- 3 - Moderate: Moderate decrease in responsivity
- 4 - Marked: Marked decrease in responsivity
- 5 - Severe: Essentially unresponsive, even on prompting
- U - Unknown/cannot be assessed/not assessed

6. Inappropriate Affect

Affect expressed is inappropriate or incongruous, not simply flat or blunted. Most typically, this manifestation of affective disturbance takes the form of smiling or assuming a silly facial expression while talking about a serious or sad topic. (Occasionally patients may smile or laugh when talking about a serious matter, which they find uncomfortable or embarrassing.)

Although their smiling may seem inappropriate, it is due to anxiety and therefore should not be rated as inappropriate affect.) Do not rate affective flattening or blunting as inappropriate.

- 0 - Not at all: Affect is not inappropriate
- 1 - Questionable
- 2 - Mild: At least one instance of inappropriate smiling or other inappropriate affect
- 3 - Moderate: Occasional instances of inappropriate affect
- 4 - Marked: Frequent instances of inappropriate affect
- 5 - Severe: Affect is inappropriate most of the time
- U - Unknown/cannot be assessed/not assessed

7. Lack of Vocal Inflections

While speaking the patient fails to show normal vocal emphasis patterns. Speech has a monotonic quality, and important words are not emphasized through changes in pitch or volume. Patient also may fail to change volume with changes of topic so that he does not drop his voice when discussing private topics or raise it as he discusses things that are exciting or for which louder speech might be appropriate.

- 0 - Not at all: Normal vocal inflections
- 1 - Questionable decrease
- 2 - Mild: Slight decrease in vocal inflections
- 3 - Moderate: Definite decrease in vocal inflections
- 4 - Marked: Marked decrease in vocal inflections
- 5 - Severe: Nearly all speech in a monotone
- U - Unknown/cannot be assessed/not assessed

8. Global Rating of Affective Flattening

The global rating should focus on overall severity of affective flattening or blunting. Special emphasis should be given to such core features as unresponsiveness, inappropriateness, and an overall decrease in emotional intensity.

- 0 - Not at all: Normal affect
- 1 - Questionable affective flattening
- 2 - Mild affective flattening
- 3 - Moderate affective flattening
- 4 - Marked affective flattening
- 5 - Severe affective flattening
- U - Unknown/cannot be assessed/not assessed

ALOGIA

9. Poverty of Speech

The patient's replies to questions are restricted in amount, tend to be brief, concrete, unelaborated.

- 0 - No poverty of speech
- 1 - Questionable poverty of speech
- 2 - Mild: Additional prompts needed every 4-5 questions (15-25%).
- 3 - Moderate: Additional prompts needed every 2-3 questions (25-50%).
- 4 - Marked: Additional prompts needed every 1-2 questions (50-75%). Most answers a few words in length.
- 5 - Severe: Additional prompts needed every question (75-100%). Some questions left unanswered.
- U - Unknown/cannot be assessed/not assessed

10. Poverty of Content of Speech

The patient's replies are adequate in amount but tend to be vague, abstract, repetitive or stereotyped, concrete or over-generalized, and convey little information.

- 0 - No poverty of content
- 1 - Questionable poverty of content
- 2 - Mild: 1 of 4-5 replies vague, overconcrete, etc. (15-25%).
- 3 - Moderate: 1 of 2-3 replies vague, overconcrete, etc., (25-50%).
- 4 - Marked: At least 1 of 2 replies vague, overconcrete, etc., (50-75%).
- 5 - Severe: Nearly every reply vague, overconcrete, etc., (75-100%).
- U - Unknown/cannot be assessed/not assessed

11. Blocking

The patient must indicate either spontaneously or with prompting that his train of thought was interrupted.

- 0 - No evidence of blocking
- 1 - Questionable blocking
- 2 - Mild: 1X during 15 minute interview
- 3 - Moderate: 2X during 15 minute interview
- 4 - Marked: 3X during 15 minute interview
- 5 - Severe: Occurs more than 3X
- U - Unknown/cannot be assessed/not assessed

12. Increased Latency of Response

The patient takes a long time to reply to questions; prompting indicates the patient is aware of the questions.

- 0 - No latency of response
- 1 - Questionable latency of response
- 2 - Mild: Pauses before answering every 4-5 questions (mainly brief pauses) (10-25%).
- 3 - Moderate: Pauses before answering every 2-3 questions (some brief pauses, some long) (25-50%).
- 4 - Marked: Pauses before answering every 1-2 questions (some brief pauses, mostly long) (50-75%).
- 5 - Severe: Long pauses before answering nearly every question (75-100%).
- U - Unknown/cannot be assessed/not assessed

13. Global Rating of Alogia

The core features of alogia are poverty of speech and poverty of content.

- 0 - No impoverished thinking
- 1 - Questionable impoverished thinking
- 2 - Mild: But definite impoverished thinking
Evidence every 4-5 replies
- 3 - Moderate: Significant impoverished thinking
Evidence every 2-3 replies
- 4 - Marked: Much of thinking is impoverished
Evidence every 1-2 replies
- 5 - Severe: Nearly all thinking is impoverished
Evidence nearly every response
- U - Unknown/cannot be assessed/not assessed

AVOLITION/APATHY

14. Grooming and Hygiene

The patient displays less attention to grooming than normal and may bathe infrequently and not care for hair, nails, or teeth, leading to such manifestations as: greasy or uncombed hair, dirty hands, nicotine stain, unshaven face, body odor, unclean teeth, bad breath, or poor toilet habits (any data from last month).

- 0 - None
- 1 - Questionable
- 2 - Mild: The patient's clothing is sloppy or outdated and/or 1 of the above manifestations of poor hygiene is evident.
- 3 - Moderate: The patient shows no attention to the coordination of garments (i.e., color, pattern, appropriateness) or may dress in clothing several sizes too small or large resulting

- in an untidy appearance, and 1-3 of the above manifestations of poor hygiene are evident.
- 4 - Marked: The patient's clothing is soiled or may be changed and washed a minimum of 1-2X per week, and 2-4 of the above manifestations of poor hygiene are evident.
 - 5 - Severe: The patient's clothing is very soiled. The patient may wear the same garment for weeks without changing and washing, and 3-5 of the above manifestations of poor hygiene are evident.
 - U - Unknown/cannot be assessed/not assessed

15. Impersistence at Work or School

Tasks:

Inpatient - Occupational therapy projects, attendance at required meetings/appointments, scheduling of necessary appointments, attendance/performance at work assignments, etc.

Outpatient - Chores such as shopping or cleaning, scheduling and attending necessary appointments, seeking and maintaining employment (seeking employment may be nonapplicable for service connected veterans).

- 0 - No evidence of impersistence
- 1 - Questionable
- 2 - Mild: Patient is unable to persist in completing 25% of tasks
- 3 - Moderate: Patient is unable to persist in completing 50% of tasks
- 4 - Marked: Patient is unable to persist in completing 75% of tasks (i.e., may frequently attend work irregularly)
- 5 - Severe: The patient is unable to persist in completing any task
- U - Unknown/cannot be assessed/not assessed

16. Physical Anergia

- 0 - None
- 1 - Questionable
- 2 - Mild: Patient spends 25% of time sitting in a chair, hanging around, or in some relatively mindless and physically inactive task such as watching television
- 3 - Moderate: Patient spends 50% of time sitting in a chair, hanging around, or in some relatively mindless and physically inactive task such as watching television
- 4 - Marked: Patient spends 75% of time, etc.
- 5 - Severe: Patient "sits around" all day and does not initiate or involve himself in any activities
- U - Unknown/cannot be assessed/not assessed

17. Global Rating of Avolition/Apathy

The global rating should reflect the overall severity of the avolition symptoms, given expectational norms for the patient's age and social status or origin. In making the global rating, strong weight may be given to only one or two prominent symptoms if they are particularly striking.

- 0 - No avolition
- 1 - Questionable
- 2 - Mild but definitely present
- 3 - Moderate avolition
- 4 - Marked avolition
- 5 - Severe avolition
- U - Unknown/cannot be assessed/not assessed

ANHEDONIA-ASOCIALITY

18. Recreational Interests and Activities

The patient may have few or no recreational interests and activities. Both the quality and quantity of interests should be taken into account.

Passive: Watching TV, listening to the radio, being driven around by someone else, playing solitaire, things that require minimal concentration, activities that do not require initiative.

Active: Engaging in activities that do require concentration and initiative (e.g., reading novels, participating in sports, going out to dinner or a movie, entertaining).

- 0 - No lack of interest or activity
- 1 - Questionable lack of interest and/or participation
- 2 - Mild: Enjoys and participates in a few active (not limited to passive) activities
- 3 - Moderate: Either 1) Some activity (passive & active), minimal enjoyment; 2) Some enjoyment, minimal activity; 3) Occasional, sporadic interest and/or activity
- 4 - Marked: Involvement in/or enjoyment of only a few passive activities (TV, radio)
- 5 - Severe: No enjoyment of or involvement in even passive activities
- U - Unknown/cannot be assessed/not assessed

19. Sexual Interest and Activity

The patient may show a decrement in sexual interest and activity, as judged by what would be normal for the patient's age and marital status. Individuals who are married may manifest disinterest in sex or may engage in intercourse only at the partner's request. In extreme cases, the patient may not engage in any sex at all.

Single patients may go for long periods of time without sexual involvement and make no effort to satisfy this drive. Whether married or single, they may report that they subjectively feel only minimal sex drive or that they take little enjoyment in sexual intercourse or in masturbatory activity, even when they engage in it.

- 0 - No inability to enjoy sexual activities
- 1 - Questionable decrement in sexual interest and activity
- 2 - Mild decrement in sexual interests
- 3 - Moderate decrement in sexual interest and activity
- 4 - Marked decrement in sexual interest and activity
- 5 - Severe decrement in sexual interest and activity
- U - Unknown/cannot be assessed/not assessed

20. Ability to Feel Intimacy and Closeness

The patient may display an inability to form close or intimate relationships, especially with opposite sex and family.

- 0 - No inability to feel intimacy and closeness
- 1 - Questionable inability to feel intimacy and closeness
- 2 - Has some difficulty feeling close to people, but feels affection for some people
- 3 - Often has difficulty feeling close to people; feels affection for only one person.
- 4 - Has much difficulty feeling close to people; has minimal desire for close relationships/affection
- 5 - No evidence of feelings of affection, or desire for close relationships/affection, emotionally disinterested in others
- U - Unknown/cannot be assessed/not assessed

21. Relationships with Friends and Peers

The patient may have few or no friends and may prefer to spend all his time isolated.

- 0 - No ability to form friendships
- 1 - Questionable inability to form friendships
- 2 - Mild: Has two close friends. Slight decrease in one of three areas: Desire, effort, frequency (less than 1X per week).
- 3 - Moderate: Most friendships peripheral; desire, but no effort; frequency less than 1X per month
- 4 - Marked: One or two peripheral friendships, minimal desire, no effort; generally prefers to be alone
- 5 - Severe: No friends, no desire, no effort; prefers to be alone
- U - Unknown/cannot be assessed/not assessed

22. Global Rating of Anhedonia-Asociality

This rating should reflect overall severity, taking into account the patient's age, family status, etc.

- 0 - No evidence of anhedonia-asociality
- 1 - Questionable evidence of anhedonia-asociality
- 2 - Mild evidence of anhedonia-asociality
- 3 - Moderate evidence of anhedonia-asociality
- 4 - Marked evidence of anhedonia-asociality
- 5 - Severe evidence of anhedonia-asociality
- U - Unknown/cannot be assessed/not assessed

ATTENTION

Attention is often poor in schizophrenics. The patient may have trouble focusing attention, or may only be able to focus sporadically and erratically. He may ignore others' attempts to converse with him, wander away while in the middle of an activity or task, or appear to be inattentive when engaged in formal testing or interviewing. He may or may not be aware of the difficulty in focusing his attention.

23. Social Inattentiveness

While involved in social situations or activities, the patient appears inattentive. He looks away during conversations, does not participate in discussions, or appears uninvolved or unengaged. He may abruptly terminate a discussion or a task without any apparent reason. He may seem "spacy" or "out of it" and appears to have poor concentration when playing games, reading, or watching TV.

- 0 - No indication of inattentiveness
- 1 - Questionable signs
- 2 - Mild but definite signs of inattentiveness
- 3 - Moderate signs of inattentiveness
- 4 - Marked signs of inattentiveness
- 5 - Severe signs of inattentiveness
- U - Unknown/cannot be assessed/not assessed

24. Inattentiveness During Mental Status Testing

The patient performs poorly on simple tests of intellectual functioning in spite of adequate education and intellectual ability. This should be assessed by having patient spell "world" backwards and by serial 7s (at least a tenth grade education) or serial 3s (at least a sixth grade education) for a series of five subtractions. A perfect score is 10.

25. Global Rating of Attention

This rating should assess the patient's overall ability to attend or concentrate, and should include both clinical appearance and performance on tasks.

- 0 - No indication of inattentiveness
- 1 - Questionable
- 2 - Mild but definite inattentiveness
- 3 - Moderate inattentiveness
- 4 - Marked inattentiveness
- 5 - Severe inattentiveness
- U - Unknown/cannot be assessed/not assessed

Section V

SCALE FOR THE ASSESSMENT OF POSITIVE SYMPTOMS (SAPS)

HALLUCINATIONS

Hallucinations represent an abnormality in perception. They are false perceptions occurring in the absence of some identifiable external stimulus. They may be experienced in any of the sensory modalities, including hearing, touch, taste, smell, and vision. True hallucinations should be distinguished from illusions (which involve a misperception of an external stimulus), hypnogogic and hypnopompic experiences (which occur when the patient is falling asleep or waking up), or normal thought processes that are exceptionally vivid. If the hallucinations have a religious quality, then they should be judged within the context of what is normal for the patient's social and cultural background. Hallucinations occurring under the immediate influence of alcohol, drugs, or serious physical illness should not be rated as present. The patient should always be requested to describe the hallucination in detail.

1. Auditory Hallucinations

The patient has reported hearing voices, noises, or sounds. The most common auditory hallucinations involve hearing voices speaking to the patient or calling him names. The voices may be male or female, familiar or unfamiliar, and critical or complimentary. Typically, schizophrenic patients experience the voices as unpleasant and negative. Hallucinations involving sounds other than voices, such as noises or music, should be considered less characteristic and less severe.

"Have you ever heard voices or other sounds when no one is around?"

"What did they say?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Patient hears noises or single words that occur only occasionally
- 3 - Moderate: Clear evidence of voices that occur at least weekly
- 4 - Marked: Clear evidence of voices that occur frequently
- 5 - Severe: Voices occur almost every day

2. Voices Commenting

Voices commenting is a particular type of auditory hallucination that phenomenologists such as Kurt Schneider consider to be pathognomonic of schizophrenia, although some recent evidence contradicts this. These hallucinations involve hearing a voice

that makes a running commentary on the patient's behavior or thought as it occurs. If this is the only type of auditory hallucination that the patient hears, it should be scored instead of auditory hallucinations (No. 1 above). Usually, however, voices commenting will occur in addition to other types of auditory hallucinations.

"Have you ever heard voices commenting on what you are thinking or doing?"

"What did they say?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Occurred once or twice
- 3 - Moderate: Occurs at least weekly
- 4 - Marked: Occurs frequently
- 5 - Severe: Occurs almost daily

3. Voices Conversing

As with voices commenting, voices conversing is considered a Schneiderian first-rank symptom. It involves hearing two or more voices talking with one another, usually discussing something about the patient. As in the case of voices commenting, it should be scored independently of other auditory hallucinations.

"Have you heard two or more voices talking with each other?"

"What did they say?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Occurred once or twice
- 3 - Moderate: Occurs at least weekly
- 4 - Marked: Occurs frequently
- 5 - Severe: Occurs almost daily

4. Somatic or Tactile Hallucinations

These hallucinations involve experiencing peculiar physical sensations in the body. They include burning sensations, tingling sensations, and perceptions that the body has changed in shape or size.

"Have you ever had burning sensations or other strange feelings in your body?"

"What were they?"

"Did your body ever appear to change in shape or size?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Occurred once or twice
- 3 - Moderate: Occurs at least weekly
- 4 - Marked: Occurs frequently
- 5 - Severe: Occurs almost daily

5. Olfactory Hallucinations

The patient experiences unusual smells that are typically quite unpleasant. Sometimes the patient may believe that he is the one who smells. This belief should be scored if the patient can actually smell the odor himself, but should be scored among delusions if he only believes that others can smell the odor.

"Have you ever experienced any unusual smells or smells that others didn't notice?"

"What were they?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Occurred at least once
- 3 - Moderate: Occurs at least weekly
- 4 - Marked: Occurs frequently
- 5 - Severe: Occurs almost daily

6. Visual Hallucinations

The patient sees shapes or people that are not actually present. Sometimes these are shapes or colors, but most typically they are figures of people or human-like objects. They may also be characters of a religious nature, such as the Devil or Christ. As always, visual hallucinations involving religious themes should be judged within the context of the patient's cultural background. Hypnogogic and hypnopompic visual hallucinations, which are relatively common, should be excluded, as should visual hallucinations that occur when the patient has been taking hallucinogenic drugs.

"Have you had visions or seen things that other people cannot?"

"What did you see?"

"Did this occur when you were falling asleep or waking up?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Occurred once or twice
- 3 - Moderate: Occurs at least weekly
- 4 - Marked: Occurs frequently
- 5 - Severe: Occurs almost daily

7. Global Rating of Severity of Hallucinations

This global rating should be based on the duration and severity of hallucinations, the extent of the patient's preoccupation with the hallucinations, his degree of conviction, and their effect on his actions. Also consider the extent to which the hallucinations might be considered bizarre or unusual. Hallucinations not mentioned above, such as those involving taste, should be included in this rating.

- 0 - None
- 1 - Questionable
- 2 - Mild: Hallucinations are definitely present, but occur very infrequently; at times the patient may question their existence
- 3 - Moderate: Hallucinations are quite vivid, occur occasionally, and are to some extent bothersome
- 4 - Marked: Hallucinations are very vivid, occur frequently, and pervade the patient's life
- 5 - Severe: Hallucinations are very vivid and extremely troubling, occur almost daily, and are sometimes unusual or bizarre

DELUSIONS

Delusions represent an abnormality in content of thought. They are false beliefs that cannot be explained on the basis of the patient's cultural background. Although delusions are sometimes defined as "fixed false beliefs," in their mildest form delusions may persist only for weeks to months, and the patient may question his beliefs or doubt them. The patient's behavior may or may not be influenced by his delusions. The rating of severity of individual delusions and of the global severity of delusional thinking should take into account their persistence, their complexity, the extent to which the patient acts on them, the extent to which the patient doubts them, and the extent to which the beliefs deviate from those that normal people might have. For each positive rating, specific examples should be noted in the margin.

8. Persecutory Delusions

The patient suffering from persecutory delusions believes that he is being conspired against or persecuted in some way. Common manifestations include the belief that he is being followed, that his mail is being opened, that his room or office is bugged, that his telephone is tapped, or that police, government officials, neighbors, or fellow workers are harassing him. Persecutory delusions are sometimes relatively isolated or fragmented, but sometimes the patient has a complex system of delusions involving both a wide range of forms of persecution and a belief that there is a well-designed conspiracy behind them. For example, the patient may believe that his house is bugged and that he is being

followed because the government wrongly considers him to be a secret agent for a foreign government; this delusion may be so complex that it explains almost everything that happens to him. The ratings of severity should be based on duration and complexity.

"Have you had trouble getting along with people?"

"Have you felt that people are against you?"

"Has anyone been trying to harm you in any way?"

"Do you think people have been plotting against you?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Delusional beliefs are simple and may be of several different types; patient may question them occasionally
- 3 - Moderate: Clear, consistent delusion that is firmly held
- 4 - Marked: Consistent, firmly-held delusion that the patient acts on
- 5 - Severe: Complex, well-formed delusion that the patient acts on and that preoccupies him a great deal of the time; some aspects of the delusion or his reaction may seem quite bizarre

9. Delusions of Jealousy

The patient believes that his/her mate is having an affair with someone. Miscellaneous bits of information are construed as "evidence." The person usually goes to great effort to prove the existence of the affair, searching for hair in the bedclothes, the odor of shaving lotion or smoke on clothing, or receipts or checks indicating a gift has been bought for the lover. Elaborate plans are often made in order to trap the two together.

"Have you ever worried that your husband (wife) might be unfaithful to you?"

"What evidence do you have?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Delusion clearly present, but the patient may question it occasionally
- 3 - Moderate: Clear, consistent delusion that is firmly held
- 4 - Marked: Consistent, firmly-held delusion that the patient acts on
- 5 - Severe: Complex, well-formed delusion that the patient acts on and that preoccupies him a great deal of the time; some aspects of the delusion or his reaction may seem quite bizarre

10. Delusions of Guilt or Sin

The patient believes that he has committed some terrible sin or done something unforgivable. Sometimes the patient is excessively or inappropriately preoccupied with the things he did wrong as a child, such as masturbating. Sometimes the patient feels responsible for causing some disastrous event, such as a fire or accident, with which he had no connection. Sometimes these delusions have a religious association involving the belief that the sin is unpardonable and that the patient will suffer eternal punishment from God. Sometimes the patient simply believes that he deserves punishment by society. The patient may spend a good deal of time confessing these sins to whoever will listen.

"Have you ever felt you have done some terrible thing that you deserve to be punished for?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Delusional beliefs may be simple and may be of several different types; patient may question them occasionally
- 3 - Moderate: Clear, consistent delusion that is firmly held
- 4 - Marked: Consistent, firmly-held delusion that the patient acts on
- 5 - Severe: Complex well-formed delusions that the patient acts on and that preoccupies him a great deal of the time; some aspects of the delusion or his reaction may seem quite bizarre

11. Grandiose Delusions

The patient believes that (1) he has special powers or abilities; (2) he is actually some famous personage, such as a rock star, Napoleon, or Christ; and (3) he is writing some definitive book, composing a great piece of music, or developing some wonderful new invention. In addition, he is often suspicious that someone is trying to steal his ideas, and may become quite irritable if his abilities are doubted.

"Are you an unusual person?"

"Do you have any special powers or abilities?"

"Do you feel you are going to achieve great things?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Delusional beliefs are simple and may be of several different types; patient may question them occasionally
- 3 - Moderate: Clear, consistent delusion that is firmly held
- 4 - Marked: Consistent, firmly-held delusion that the patient acts on

- 5 - Severe: Complex, well-formed delusion that the patient acts on and that preoccupies him a great deal of the time; some aspects of the delusion or his reaction may seem quite bizarre

12. Religious Delusions

The patient is preoccupied with false beliefs of a religious nature. Sometimes these exist within the context of a conventional religious system, such as beliefs about the Second Coming, the Anti-Christ, or possession by the Devil. At other times, they may involve an entirely new religious system or a pastiche of beliefs from a variety of religions, particularly Eastern religions, such as ideas about reincarnation or nirvana. Religious delusions may be combined with grandiose delusions (if the patient considers himself a religious leader), delusions of guilt, or delusions of being controlled. Religious delusions must be outside the range considered normal for the patient's cultural and religious background.

"Are you a religious person?"

"Have you had any unusual religious experiences?"

"What was your religious training as a child?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Delusional beliefs are simple and may be of several different types; patient may question them occasionally
- 3 - Moderate: Clear, consistent delusion that is firmly held
- 4 - Marked: Consistent, firmly-held delusion that the patient acts on
- 5 - Severe: Complex, well-formed delusion that the patient acts on and that preoccupies him a great deal of the time; some aspects of the delusion or his reaction may seem quite bizarre

13. Somatic Delusions

The patient believes that somehow his body is diseased, abnormal, or changed. For example, he may believe that his stomach or brain is rotting, that his hands or penis have become enlarged, or that his facial features are unusual (dysmorphophobia). Sometimes somatic delusions are accompanied by tactile or other hallucinations, and when this occurs, both should be rated. (For example, the patient believes that he has ballbearings rolling around in his head, placed there by a dentist who filled his teeth, and can actually hear them clanking against one another.)

"Is there anything wrong with your body?"

"Have you noticed any change in your appearance?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Delusional beliefs are simple and may be of several different types; patient may question them occasionally
- 3 - Moderate: Clear, consistent delusion that is firmly held
- 4 - Marked: Consistent, firmly-held delusion that the patient acts on
- 5 - Severe: Complex, well-formed delusion that the patient acts on and that preoccupies him a great deal of the time; some aspects of the delusion or his reaction may seem quite bizarre

14. Ideas and Delusions of Reference

The patient believes that insignificant remarks, statements, or events refer to or have some special meaning for him. For example, the patient walks into a room, sees people laughing, and suspects that they were just talking about and laughing at him. Sometimes items read in the paper, heard on the radio, or seen on TV are considered to be special messages to the patient. In the case of ideas of reference, the patient is suspicious, but recognizes his idea is erroneous. When the patient actually believes that the statements or events refer to him, then this is considered a delusion of reference.

"Have you ever walked into a room and thought people were talking about you?"

"Have you seen things in magazines or on TV that seem to refer to you or contain a special message for you?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Occasional ideas of reference
- 3 - Moderate: Occur a few times
- 4 - Marked: Occur at least weekly
- 5 - Severe: Occur frequently

15. Delusions of Being Controlled

The patient has a subjective experience that his feelings or actions are controlled by some outside force. The central requirement for this type of delusion is an actual strong subjective experience of being controlled. It does not include simple beliefs or ideas, such as that the patient is acting as an agent of God or that friends or parents are trying to coerce him to do something. Rather, the patient must describe, for example, that his body has been occupied by some alien force that is making it move in peculiar ways, or that messages are being sent to his brain by radio waves causing particular feelings that are recognized as not being his own.

"Have you ever felt that you were being controlled by some outside force?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Patient has experience of being controlled, but doubts it occasionally
- 3 - Moderate: Clear experience of control that has occurred on two or three occasions
- 4 - Marked: Clear experience of control that occurs frequently; behavior may be affected
- 5 - Severe: Clear experience of control that occurs frequently, pervades the patient's life, and often affects his behavior

16. Delusions of Mind Reading

The patient believes that people can read his mind or thoughts. This is different than thought broadcasting (see below), in that it is a belief without a percept. That is, the patient subjectively experiences and recognizes that others know his thoughts, but he does not think they can be heard out loud.

"Have you ever had the feeling that people could read your mind?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Patient has experienced mind reading, but doubts it occasionally
- 3 - Moderate: Clear experience of mind reading that has occurred on two or three occasions
- 4 - Marked: Clear experience of mind reading that occurs frequently
- 5 - Severe: Clear experience of mind reading that occurs frequently, pervades the patient's life, and often affects his behavior

17. Thought Broadcasting

The patient believes that his thoughts are broadcast so that he or others can hear them. Sometimes the patient feels the thoughts are being broadcast, although he cannot hear them. Sometimes he believes that the thoughts are picked up by a microphone and broadcast on the radio or TV.

"Have you ever heard your own thoughts out loud, as if they were a voice outside your head?"

"Have you ever felt your thoughts were broadcast so other people could hear them?"

- 0 - None
- 1 - Questionable

- 2 - Mild: Patient has experienced thought broadcasting, but doubts it occasionally
- 3 - Moderate: Clear experience of thought broadcasting that has occurred on two or three occasions
- 4 - Marked: Clear experience of thought-broadcasting that occurs frequently, pervades the patient's life, and may affect his behavior
- 5 - Severe: Clear experience of thought broadcasting that occurs frequently, pervades the patient's life, and often affects his behavior

18. Thought Insertion

The patient believes that others' thoughts have been inserted into his mind. For example, the patient may believe that a neighbor is practicing voodoo and planting alien sexual thoughts in his mind. This symptom should not be confused with experiencing unpleasant thoughts that the patient recognizes as his own, such as delusions of persecution or of guilt.

"Have you ever felt that thoughts were being put into your head by some outside force?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Patient has experienced thought insertion, but doubts it occasionally
- 3 - Moderate: Clear experience of thought insertion that has occurred on two or three occasions
- 4 - Marked: Clear experience of thought insertion that occurs frequently, and may affect behavior
- 5 - Severe: Thought insertion that occurs frequently pervades the patient's life, and affects his behavior

19. Thought Withdrawal

The patient believes that thoughts have been taken away from his mind. He is able to describe a subjective experience of beginning a thought and then suddenly having it removed by some outside force. This symptom does not include the mere subjective recognition of alogia.

"Have you ever felt your thoughts were taken away by some outside forces?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Patient has experienced thought withdrawal, but doubts it occasionally
- 3 - Moderate: Clear experience of thought withdrawal that has occurred on two or three occasions

- 4 - Marked: Clear experience of thought withdrawal that occurs frequently, and may affect behavior
- 5 - Severe: Clear experience of thought withdrawal that occurs frequently, pervades the patient's life, and often affects his behavior

20. Global Rating of Severity of Delusions

The global rating should be based on duration and persistence of delusions, the extent of the patient's preoccupation with the delusions, his degree of conviction, and their effect on his actions. Also consider the extent to which the delusions might be considered bizarre or unusual. Delusions not mentioned above should be included in this rating.

- 0 - None
- 1 - Questionable
- 2 - Mild: Delusion definitely present but at time the patient questions the belief
- 3 - Moderate: Patient is convinced of the belief, but it may occur infrequently and have little effect on his behavior
- 4 - Marked: Delusions are firmly held, occur frequently, and affect the patient's behavior
- 5 - Severe: Delusions are complex, well-formed, and pervasive; they are firmly held and have a major effect on the patient's behavior, and may be somewhat bizarre or unusual

BIZARRE BEHAVIOR

The patient's behavior is unusual, bizarre, or fantastic. For example, the patient may urinate in a sugar bowl, paint the two halves of his body different colors, or kill a litter of pigs by smashing their heads against a wall. The information for this item will sometimes come from the patient, sometimes from other sources, and sometimes from direct observation. Bizarre behavior due to the immediate effects of alcohol or drugs should be excluded. As always, social and cultural norms must be considered in making the ratings, and detailed examples should be elicited and noted.

21. Clothing and Appearance

The patient dresses in an unusual manner or does other strange things to alter his appearance (e.g., shaving off all his hair or painting parts of his body different colors). His clothing may be quite unusual; for example, he may choose to wear some outfit that appears generally inappropriate and unacceptable, such as a baseball cap backwards with rubber galoshes and long underwear covered by denim overalls, a fantastic costume representing some historical personage or a man from outer space; and heavy wools in summer.

"Have you noticed anything unusual about your appearance?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Occasional oddities of dress or appearance
- 3 - Moderate: Appearance or apparel is clearly unusual and would attract attention
- 4 - Marked: Appearance or apparel is markedly odd
- 5 - Severe: Appearance or apparel is very fantastic or bizarre

22. Social and Sexual Behavior

- 0 - None
- 1 - Questionable
- 2 - Mild: 2-4 instances of somewhat odd/peculiar behavior (i.e., he may walk the street muttering to himself or begin talking about his personal life to strangers, make inappropriate sexual overtures or remarks to strangers, etc.)
- 3 - Moderate: 4-8 instances of somewhat odd/peculiar behavior or instance of very odd behavior (i.e., may masturbate in public, urinate or defecate in inappropriate receptacle, or exhibit sex organs inappropriately)
- 4 - Marked: 8-10 instances of odd behavior or 2-3 instances of very odd behavior
- 5 - Severe: Continuous odd behavior or 3-5 instances of very odd behavior

23. Aggressive and Agitated Behavior

- 0 - None
- 1 - Questionable
- 2 - Mild: 1-2 instances of mild behaviors (i.e., start arguments inappropriately w/friends or members of family)
- 3 - Moderate: 2-4 instances of mild behaviors or 1-2 instances of moderate behaviors (i.e., may write letters of a threatening or angry nature to government officials or others with whom he has some quarrel)
- 4 - Marked: 3-5 instances of mild behaviors or 2-4 instances of moderate behaviors, or 1 instance of a severe behavior
- 5 - Severe: 5 repeated instances of moderate behavior or 2 or more severe behaviors (i.e., may perform violent acts such as injuring or tormenting animals, or attempting to injure or kill humans)

24. Repetitive or Stereotyped Behavior

The patient may develop a set of repetitive actions or rituals that must be performed over and over. Frequently he will attribute some symbolic significance to these actions and believe that he is either influencing others or preventing himself from being influenced. For example (e.g., may eat jelly beans every night for dessert, assuming that different consequences will occur depending on the color of the jelly beans; may have to eat foods in a

particular order; wear particular clothes or put them on in a certain order; may have to write messages to himself or to others over and over, sometimes in an unusual or occult language).

"Are there any things that you do over and over?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Occasional instances of repetitive or stereotyped behavior
- 3 - Moderate: e.g., eating or dressing rituals lacking symbolic significance
- 4 - Marked: e.g., eating or dressing rituals with a symbolic significance
- 5 - Severe: e.g., keeping a diary in an incomprehensible language

25. Global Rating of Severity of Bizarre Behavior

In making this rating, consider the type of behavior, the extent to which it deviates from social norms, the patient's awareness of the degree to which the behavior is deviant, and the extent to which it is obviously bizarre.

- 0 - None
- 1 - Questionable
- 2 - Mild: Occasional instances of unusual or apparently idiosyncratic behavior; patient usually has some insight
- 3 - Moderate: Behavior that is clearly deviant from social norms and seems somewhat bizarre; patient may have some insight
- 4 - Marked: Behavior that is markedly deviant from social norms and clearly bizarre; patient may have some insight
- 5 - Severe: Behavior that is extremely bizarre or fantastic; may include a single extreme act, e.g., attempting murder; patient usually lacks insight

26. Derailment

A pattern of speech in which ideas slip off track onto ideas obliquely related or unrelated.

Slight = Topic shifts involve plausible, relatively understandable connections and shifts occur over the course of several clauses/sentences

Moderate = Plausible/oblique connections between topic shifts, but shifts occur between sentences/clauses

Severe/Bizarre = Idiosyncratic or completely unrelated connection between topic shifts; shifts occur abruptly

- 0 - None
- 1 - Questionable

- 2 - Mild: 3-4 clear instances of slight to moderate shifts that do not impair understandability of responses; 1/4 or less of responses involve steady but slight topic shifts with no more than one derailment being severe
- 3 - Moderate: 2-4 instances of severe or bizarre topic shifts that impair understandability of response and/or approximately 1/2 of responses involve steady but slight to moderate shifts that make subject difficult to follow
- 4 - Marked: 5-10 instances of severe or bizarre topic shifts, that clearly impair understandability of response, and/or nearly all of responses involve steady but moderate topic shifts which make subject difficult to follow
- 5 - Severe: Nearly all of responses involve severe or bizarre topic shifts; speech is almost incomprehensible

27. Tangentiality

Replying to a question in an oblique or irrelevant manner

Mild = Plausible connection to question, but only obliquely related

Severe = Implausible or idiosyncratic connection to question

- 0 - None
- 1 - Questionable
- 2 - Mild: 2-4 mildly tangential replies
- 3 - Moderate: 5-10 mildly tangential or 2-4 severely tangential replies
- 4 - Marked: 5-10 severely tangential replies or nearly all replies are mildly tangential
- 5 - Severe: Nearly all replies are severely tangential; interview is extremely difficult to complete as responses are completely idiosyncratic

28. Incoherence

A pattern of speech that is essentially incomprehensible at times

- 0 - None
- 1 - Questionable
- 2 - Mild: During an hour, 2-4 instances in which inappropriate words are joined within same sentence or clause; overall speech is comprehensible
- 3 - Moderate: During an hour, 5-10 sentences in which inappropriate words are joined within same sentence or clause; overall speech is difficult to follow but relatively comprehensible (25%)
- 4 - Marked: During an hour, over 1/2 of replies involve inappropriate juxtaposition of words within same sentence or clause; at least 2-4 instances in which multiple combinations of inappropriate words joined within same sentence or clause;

- overall speech is incomprehensible with a few definite instances of clarity (50%)
- 5 - Severe: During an hour, nearly all of replies contain inappropriate joined words within the same sentence/clause; more than 4 or 5 instances in which multiple combination of words inappropriately joined; speech completely incomprehensible (100%)

29. Illogicality

A pattern of speech in which conclusions are reached that do not follow logically.

- 0 - None
- 1 - Questionable
- 2 - Mild: During an hour, 1-2 instances of illogicality
- 3 - Moderate: During an hour, 3-5 instances of illogicality with little overall comprehensibility
- 4 - Marked: During an hour, 5-10 instances of illogicality that interfere with overall comprehensibility of interview
- 5 - Severe: During an hour, more than 10 instances or so frequent that interview is nearly incomprehensible

30. Circumstantiality

A pattern of speech that is very indirect and delayed in reaching its goal.

- 0 - None
- 1 - Questionable
- 2 - Mild: During an hour, 2-4 instances of detailed replies that last for at least several minutes but do not require interruption by the interviewer
- 3 - Moderate: During an hour, 5-10 instances of detailed replies that last for at least several minutes, some of which may require interruption by the interviewer, or 1/4 to 1/2 of responses are circumstantial but in most cases limited by subject without interruption by interviewer (25-50%)
- 4 - Marked: During an hour, more than 10 instances of detailed replies that last for at least several minutes, most of which require interruption by the interviewer; or at least 1/2 to nearly all responses are circumstantial but in most cases are limited by the subject without interrupting the interviewer (50-75%)
- 5 - Severe: During an hour, almost all of subject's speech is circumstantial requiring nearly constant interruption by the interviewer (75-100%)

31. Pressure of Speech

An increase in the amount of spontaneous speech as compared with what is considered ordinary or socially customary. The patient talks rapidly and is difficult to interrupt. Some sentences may be left uncompleted because of eagerness to get on to a new idea. Simple questions, which could be answered in only a few words or sentences, are answered at great length so that the answers take minutes rather than seconds and indeed may not stop at all if the patient is not interrupted. Even when interrupted, the patient often continues to talk. Speech tends to be loud and emphatic. Sometimes patients with severe pressure will talk without any social stimulation and talk even though no one is listening. When patients are receiving phenothiazines or lithium, their speech is often judged only on the basis of amount, volume, and social appropriateness. If a quantitative measure is applied to the rate of speech, then a rate greater than 150 words per minute is usually considered rapid or pressured. This disorder may be accompanied by derailment, tangentiality, or incoherence, but it is distinct from them.

- 0 - None
- 1 - Questionable
- 2 - Mild: Slight pressure of speech; some slight increase in amount, speed, or loudness of speech
- 3 - Moderate: Usually takes several minutes to answer simple questions, may talk when no one is listening, and/or speaks loudly and rapidly
- 4 - Marked: Frequently takes as much as three minutes to answer simple questions; sometimes begins talking without social stimulation; difficult to interrupt
- 5 - Severe: Talks almost continually, cannot be interrupted at all, and/or may shout to drown out the speech of others

32. Distractible Speech

During the course of a discussion or interview, the patient stops talking in the middle of a sentence or idea and changes the subject in response to a nearby stimulus, such as an object on a desk, the interviewer's clothing or appearance, etc.

Example: "Then I left San Francisco and moved to...where did you get that tie? It looks like it's left over from the 50s. I like the warm weather in San Diego. Is that a conch shell on your desk? Have you ever gone scuba-diving?"

- 0 - None
- 1 - Questionable
- 2 - Mild: Distracted 1 time during an hour
- 3 - Moderate: Distracted from 2-4 times during an hour
- 4 - Marked: Distracted from 5-10 times during an hour
- 5 - Severe: Distracted more than 10 times during an hour

33. Clanging

A pattern of speech in which sounds rather than meaningful relationships appear to govern word choice, so that the intelligibility of the speech is impaired and redundant words are introduced. In addition to rhyming relationships, this pattern of speech may also include punning associations, so that a word similar in sound brings in a new thought.

Example: "I'm not trying to make a noise. I'm trying to make sense. If you can make sense out of nonsense, well, have fun. I'm trying to make sense out of sense. I'm not making sense (cents) anymore. I have to make dollars."

- 0 - None
- 1 - Questionable
- 2 - Mild: Occurs 1 time during an hour
- 3 - Moderate: Occurs from 2-4 times during an hour
- 4 - Marked: Occurs 5-10 times during an hour
- 5 - Severe: Occurs more than 10 times or so frequently that the interview is incomprehensible

34. Global Rating of Positive Formal Thought Disorder

In making this rating, consider the type of abnormality, the degree to which it affects the patient's ability to communicate, the frequency with which abnormal speech occurs, and its degree of severity.

- 0 - None
- 1 - Questionable
- 2 - Mild: Occasional instances of disorder; patient's speech is understandable
- 3 - Moderate: Frequent instances of disorder; patient is sometimes hard to understand
- 4 - Marked: Patient is often difficult to understand
- 5 - Severe: Patient is incomprehensible

Section W

MODIFIED SIS RATINGS (SCHIZOPHRENIA CENTERS)

For further information see Section M on page 46.

Section X

INTERVIEWER'S RELIABILITY ASSESSMENT

Rate the apparent candor and accuracy of the information obtained in the interview. Use the bottom half of the page to write notes explaining your concerns, if any, about the interview accuracy. If subjects appeared to be candid but had minor difficulty recalling details of symptoms or reluctantly offered information that you think is accurate, rate that section "fair." If you have serious concerns about the integrity/accuracy of the data in any section or for the whole DIGS, rate the section unreliable and explain below.

NARRATIVE SUMMARY

Writing of a detailed narrative summary immediately after the completion of each interview session is a crucial step in the data gathering/recording process. These summaries are essential in the "Best Estimate" diagnostic procedures carried out by senior clinical investigators. Keep the "GAS" in mind for information on current functioning.

The narrative summary should include a description of (1) the interview location and circumstance (e.g., done in a home, a bar, a hospital psychiatric ward); (2) the subject's appearance (e.g., dressed in a suit or in rumpled dirty clothing); and (3) some sense of his/her openness or cooperativeness with the research interview. The summary should describe the current mental status and the outline of the longitudinal history of the psychiatric disorder(s), if any are present. The narrative should give extra detail beyond the ratings and marginal notes for any crucial and/or uncertain points. Explain any difficulties in the conduct of the interview that made some or all ratings difficult. Finally, describe in context and in detail the conflicting data, which may be relevant to the ratings. When appropriate, give your impression about which data is more accurate and why.

Example 1

The patient is a 48-year-old, twice married, white male outpatient who came into the hospital for the interview. He was appropriately dressed in a suit. He was alert, attentive, cooperative with the interview, and had good eye contact. His speech was normal in rate and amount, and there was no evidence of formal thought disorder. His mood appeared euthymic and he laughed at several of the questions. There was no evidence of hallucinations or delusions.

The patient reported that he had had four hospitalizations for mania. His illness began at age 34 with a manic episode that was preceded by a number of psychosocial stressors. He was hospitalized for 90 days and started on lithium. After the discharge, he stopped taking his medications. He became manic again about 1 year later and was "writing my life on the wall," planning to go to the governor's home to confront him on an issue, and fighting with his girlfriend. He had delusions of reference, believing that his life was being guided by the color of cars. He was taken to the hospital by police for treatment that lasted 2 years. He had 10-12 ECTs during that hospitalization but cannot recall feeling depressed at that time.

The third admission was precipitated by a physical confrontation in a government office. He was hospitalized for 4 weeks. He has generally done well since then, holding a steady job as a planner for 10 years. He and his wife stopped taking their medications about 4 years ago (he

had been taking lithium) and both became ill about 2 years ago. He believes this was his most severe episode. In addition to increased activity, over talkativeness, racing thoughts, and decreased concentration and sleep, he was extremely grandiose. His behavior led to his arrest and another hospitalization lasting 2 weeks. He was put back on lithium and now takes 600 mg twice a day.

The patient denies ever having hallucinations and has never had delusions when his mood was normal. He reports brief periods of depression but states they never lasted for more than 1 day, although he was treated with Tofranil at one point.

He admits to increased alcohol and marijuana use between his first and second episodes of mania, so his second episode is not a clean one. Regarding alcohol use, the largest number of drinks in a 24-hour period was six, but the CAGE questions were all negative. He had used marijuana more than 21 times in a year (about once each week), but all subsequent questions on marijuana use were negative.

He has a history of one panic attack with at least four associated symptoms.

Imp: Bipolar mood disorder

Example 2

This 29-year-old, divorced, black mother of one now lives with her daughter and works for a telephone sales company. She describes a period of mood disorder at age 24 when she felt depressed for several weeks and received about 3 weeks of antidepressant treatment. After discontinuing the medication, she experienced another 3 weeks of a mood disorder, which appeared to be symptomatic of depression followed by mania (including some violence toward others), that ensued in hospitalization. She was treated at Wishard Hospital for 2 months and then transferred on court order to Carter Hospital for another 2 months. Upon discharge she was administered lithium and states she has done well since. She is now euthymic. During the hospitalization it sounds as if she had additional depressive and manic symptoms, but she is unable to give a clear history of that time.

Her depressive symptoms prior to admission include sleep and appetite loss (including 32-pound weight loss), loss of interest, lack of energy, guilt, restlessness, and difficulty concentrating. Her manic symptoms include increased activity, decreased need for sleep (including 3-4 nights in a row with no sleep), trouble concentrating and getting into trouble by assaulting her husband and a female supervisor at her job. She had the delusion that everyone was against her, both during the depression and the mania, but not before or since.

She denies alcohol or drug use and any antisocial behavior except for using a stick in fights before age 15.

Her chronology is sketchy and her account of the time spent in the hospital is very fragmentary, to some extent because of poor memory problems and denial. Currently, she seems to be getting along reasonably well.

Imp: Bipolar mood disorder

Section Z

MEDICAL RECORDS INFORMATION

Obtain as much information as necessary (and written consent from the subject as well) to send for all psychiatric inpatient and outpatient mental health care records on the subject that may exist. Also obtain similar information and consent for any educational or medical records regarding neurological assessments (EEG, Head CT, or MRI Scans), cognitive or neuropsychological assessments (IQ tests, memory testing, and/or educational testing), and other medical records that may pertain to psychiatric symptoms. If physician, hospital, or clinic names are unknown, put down the subject's best recall estimates and make arrangements for the subject to retrieve this information (to the extent possible) and send it to you by mail or by phone.

Section AA

OPCRIT INFORMATION

The OPCRIT is an extensive list of operationalized criteria for making symptom ratings. All subjects should be asked the questions in this Section. The OPCRIT can be completed from interview information, medical record review, family interviews, and any other relevant source of information. The OPCRIT covers the presence or absence of specific symptoms over the lifetime of the individual and is focused most specifically on psychotic symptoms. It is also concerned with symptoms related to depression and mania. While it is not possible to make an actual diagnosis from OPCRIT (because it is a lifetime rather than episodic instrument), the completion of OPCRIT permits comparability of information about symptomatology across research groups. Most of the OPCRIT items are embedded within the DIGS and Family Interview for Genetic Studies. However, a few ratings are made after the interview is completed. These items are found in Section AA of the DIGS. Instructions to some of the items are presented below.

Duration of illness. This item relates to the duration of psychotic illness. An episode includes all prodromal, active, and residual phases of the illness as long as there has not been a return to premorbid level of functioning for 2 months or more without medication. If the individual has had more than one psychotic episode, code the longest episode.

Increased sociability. This item concerns social interaction and not just an increase in social activity. The less inhibited and more socially inappropriate the behavior, the higher the rating.

Course of disorder. Rate this item for the course of the psychotic disorder only.

Dutch → Netherlands

Appendix A

GEOGRAPHICAL INFORMATION

- | | | | |
|----|---|----|--|
| 01 | Anglo-Saxon
Britain
England
Northern Ireland
Scotland
Wales | 09 | Hispanic (not Puerto Rican)
Bahamas
Cuba
Dominican Republic
Haiti |
| 02 | Northern European
Denmark
Finland <i>Holland</i>
Norway
Sweden | 10 | Puerto Rican-Hispanic |
| 03 | Western European
Belgium
France
Germany
Ireland
Netherlands ("Holland")
Portugal
Spain | 11 | Mexican-Hispanic |
| 04 | Eastern European (Slavic)
Albania
Austria
Bulgaria
Czechoslovakia
Hungary
Poland
Romania
Serbo-Croatia
Ukraine
Yugoslavia | 12 | Asian
China
India
Indonesia
Japan
Korea
Philippines
Thailand
Vietnam |
| 05 | Russian | 13 | Arab |
| 06 | Mediterranean
Albania
Algeria
Egypt
Greece
Italy
Libya
Morocco
Sicily
Tunisia
Turkey | 14 | Native American/Alaskan
Native |
| 07 | Ashkenazi Jew
European ancestry except
Bulgaria, Italy, Spain | 15 | African-American
not of Hispanic Origin |
| 08 | Sephardic Jew
from Northern Africa or of
Mid-East ancestry | 16 | Other (Genetic Isolate) |
| | | 17 | Unknown |

MANAGERIAL AND PROFESSIONAL SPECIALTY OCCUPATIONS

Executive, Administrative, and Managerial Occupations (01)

Legislators
Chief executives and general administrators, public administration
Administrators and officials, public administration
Administrators, protective services
Financial managers
Personnel and labor relations managers
Purchasing managers
Managers, marketing, advertising, and public relations
Administrators, education and related fields
Managers, medicine and health
Managers, properties and real estate
Postmasters and mail superintendents
Funeral directors
Managers and administrators
Management related occupations
 Accountants and auditors
 Underwriters
 Other financial officers
 Management analysts
 Personnel training and labor relations specialists
 Purchasing agents and buyers, farm products
 Buyers, wholesale and retail trade, except farm products
 Purchasing agents and buyers
 Business and promotion agents
 Construction inspectors
 Inspectors and compliance officers, exec. construction

Professional Specialty Occupations (02)

Architects
Engineers, surveyors, and mapping scientists
 Aerospace engineers
 Metallurgical and materials engineers
 Mining engineers
 Petroleum engineers
 Chemical engineers
 Nuclear engineers
 Civil engineers
 Agricultural Engineers
 Electrical and electronic engineers
 Industrial engineers
 Mechanical engineers
 Marine engineers and naval architects
 Engineers
 Surveyors and mapping scientists
Mathematical and computer scientists
 Computer systems analysts and scientists
 Operations and systems researchers and analysts
 Actuaries
 Statisticians
Natural scientists
 Physicists and astronomers
 Chemists, except biochemists
 Atmospheric and space scientists
 Geologists and geodesists
 Physical scientists
 Agricultural and food scientists
 Biological and life scientists

Forestry and conservation scientists
Medical scientists
Health diagnosing occupations
 Physicians
 Dentists
 Veterinarians
 Optometrists
 Podiatrists
 Health diagnosing practitioners
Health assessment and treating occupations
 Registered nurses
 Pharmacists
 Dietitians
 Therapists
 Inhalation therapists
 Occupational therapists
 Physical therapists
 Speech therapists
 Physician's assistants
Teachers, postsecondary
 Earth, environmental, and marine science teachers
 Biological science teachers
 Chemistry teachers
 Physics teachers
 Natural science teachers
 Psychology teachers
 Economic teachers
 History teachers
 Political science teachers
 Sociology teachers
 Social science teachers
 Engineering teachers
 Mathematical science teachers
 Computer science teachers
 Medical science teachers
 Health specialties teachers
 Business, commerce, and marketing teachers
 Agricultural and forestry teachers
 Art, drama, and music teachers
 Physical education teachers
 Education teachers
 English teachers
 Foreign language teachers
 Law teachers
 Social work teachers
 Theology teachers
 Trade and industrial teachers
 Home economic teachers
Teachers, except postsecondary
 Prekindergarten and kindergarten teachers
 Elementary school teachers
 Secondary school teachers
 Special education teachers
Counselors, educational and vocational
Librarians, archivists, and curators
Social scientists and urban planners
 Economists
 Psychologists
 Sociologists
Social, recreation, and religious workers
 Clergy
Lawyers and judges
Writers, artists, entertainers, and athletes (03)
 Authors
 Technical writers
 Designers
 Musicians and composers

Actors and directors
Painters, sculptors, draft artists, printmakers
Photographers
Dancers
Performers and related workers
Editors and related workers
Editors and reporters
Public relations specialists
Announcers

Auctioneers
Sales support occupations

Administrative Support Occupations, Including Clerical (06)

Supervisors, administrative support occupations
Supervisors, general office
Supervisors, computer equipment operators
Supervisors, financial records processing
Chief communications operators
Supervisors, distribution, scheduling, and adjusting clerks
Computer equipment operators
Computer operators
Peripheral equipment operators
Secretaries, stenographers, and typists
Information clerks
Interviewers
Hotel clerks
Transportation ticket and reservation agents
Receptionists
Records, processing occupations, except financial
Classified ad clerks
Correspondence clerks
Order clerks
Personnel clerks, except payroll and timekeeping
Library clerks
File clerks
Records clerks
Financial records processing occupations
Bookkeepers, accounting and auditing clerks
Payroll and timekeeping clerks
Billing clerks
Cost and rate clerks
Billing, posting, and calculating machine operators
Duplicating, mail and other office machine operators
Mail preparing and paper handling machine operators
Communications equipment operators
Telephone Operators
Telegraphers
Mail and message distributing occupations
Postal clerks, exec. mail carriers
Mail carriers, post service
Mail clerks, exec. postal service
Messengers
Material recording, scheduling, and distributing clerks
Dispatchers
Production coordinators

TECHNICAL, SALES, AND ADMINISTRATIVE SUPPORT OCCUPATIONS

Technicians and Related Support Occupations (04)

Health technologists and technicians
Clinical laboratory technologists and technicians
Dental hygienists
Health record technologists and technicians
Radiologic technicians
Licensed practical nurses
Technologists and technicians, except health
Engineering and related technologists and technicians
Electrical and electronic technicians
Industrial engineering technicians
Mechanical engineering technicians
Drafting occupations
Surveying and mapping technicians
Science technicians
Biological technicians
Chemical technicians
Technicians, except health, engineering, and science
Airplane pilots and navigators
Air traffic controllers
Broadcast equipment operators
Computer programmers
Tool programmers, numerical control
Legal Assistants

Sales Occupations (05)

Supervisors and proprietors, sales occupations
Sales occupations, business goods and services
Insurance sales occupations
Real estate sales occupations
Securities and financial services sales occupations
Advertising and related sales occupations
Sales occupations, other business services
Sales engineers
Sales representatives, mining, manufacturing, and wholesale
Sales occupations, personal goods and services
Sales workers, motor vehicle and boats
Sales workers, apparel
Sales workers, shoes
Sales workers, furniture and home furnishings
Sales workers: radio, television, hi-fi, and appliances
Sales workers, hardware and building supplies
Sales workers, parts
Sales workers, other commodities
Sales counter, clerks
Cashiers
Street and door-to-door sales workers
News vendors
Sales related occupations
Demonstrators, promoters and models, sales

FARMING, FORESTRY, AND FISHING OCCUPATIONS (010)

Other agricultural and related occupations
Farm occupations, except managerial
Supervisors, farm workers
Farm workers
Marine life cultivation workers
Nursery workers
Related agricultural occupations (011)
Supervisors, related agricultural occupations
Groundskeepers and gardeners, except farm
Animal caretakers, except farm
Graders and sorters, agricultural products
Inspectors, agricultural products

Forestry and logging occupations
Supervisors, forestry and logging workers
Forestry workers, except logging
Timber cutting
Fishers, hunters, and trappers
Captains and other officers, fishing vessels

PRECISION PRODUCTION, CRAFT, AND REPAIR OCCUPATIONS

Mechanics and repairers (012)
Supervisors, mechanics and repairers
Mechanics and repairers, except supervisors
Vehicles and mobile equipment mechanics and repairers
Automobile mechanics
Automobile mechanic apprentices
Bus, truck, and stationary engine mechanics
Aircraft engine mechanics
Small engine repairers

PRECISION PRODUCTION, CRAFT, AND REPAIR OCCUPATIONS

Automobile body and related repairers
Aircraft mechanics, exec. engine
Heavy equipment mechanics
Farm equipment mechanics
Industrial machinery repairers
Machinery maintenance occupations
Electrical and electronic equipment repairers
Electronic repairers, communications, and industrial equipment
Data processing equipment repairers
Household appliance and power tool repairers
Telephone line installers and repairers
Telephone installers and repairers
Miscellaneous electrical and electronic equipment repairers
Heating, air conditioning, and refrigeration mechanics
Miscellaneous mechanics and repairers
Cameras, watch, and musical instrument repairers
Locksmiths and safe repairers
Office machine repairers
Mechanical controls and valve repairers
Elevator installers and repairers
Wheelwrights
Construction trades
Supervisors, construction occupations
Supervisors, brickmasons, stonemasons, and tile setters
Supervisors, carpenters and related workers
Supervisors, electricians and power transmission installers
Supervisors: painters, paperhangers, and plasterers
Supervisors: plumbers, pipefitters, and steamfitters
Construction trades, except supervisors
Brickmasons and stonemasons
Brickmason and stonemason apprentices
Tile setters, hard and soft
Carpet installers
Carpenters
Carpenter apprentices
Drywall installers
Electricians
Electrician apprentices
Electrical power installers and repairers
Painters, construction and maintenance

Paperhangers
Plasterers
Plumbers, pipefitters and steamfitters
Plumber, pipefitter, and steamfitter apprentice
Concrete and terrazzo finishers
Glaziers
Insulation workers
Paving, surfacing, and tamping equipment operators
Roofers
Sheetmetal duct installers
Structural metal workers
Drillers, earth
Extractive occupations
Supervisors, extractive occupations
Drillers, oil well
Explosive workers
Mining machine operators
Mining occupations
Precision production occupations
Supervisors, production occupations
Precision metal working occupations
Tool and die makers
Tool and die maker apprentices
Precision assemblers, metal
Machinists
Machinist apprentices
Boilermakers
Precision grinders, fitters, and tool sharpeners
Patternmakers and model makers, metal
Lay-out workers
Precious stones and metals workers (jewelers)
Engravers, metal
Sheetmetal workers
Sheetmetal worker apprentices
Miscellaneous precision metal workers
Precision woodworking occupations
Patternmakers and model makers
Cabinetmakers and bench carpenters
Furniture and wood finishers
Miscellaneous precision woodworkers
Precision textile, apparel, and furnishing machine workers
Dressmakers
Tailors
Upholsterers
Shoe repairers
Apparel and fabric patternmakers
Miscellaneous precision apparel and fabric workers
Precision workers, assorted materials
Hand molder and shapers, except jewelry
Patternmakers, lay-out workers, and cutters
Optical goods workers
Dental laboratory and medical appliance technicians
Book binders
Electrical and electronic equipment assemblers
Miscellaneous precision workers
Precision food production occupations
Butcher and meat cutters
Bakers
Food batchmakers
Precision inspectors, testers, and related workers
Inspectors, testers, and graders
Adjusters and calibrators
Plant and system operators
Water and sewage treatment plant operators

Power plant operators
Stationary engineers
Miscellaneous plant and system operators

OPERATORS, FABRICATORS, AND LABORERS

Machine Operators, Assemblers, and Inspectors (013)

Machine operators, and tenders, except precision
Metalworking and plastic working machine operator
Lathe and turning machine setup operators
Lathe and turning machine operators
Milling and planing machine operators
Punching and stamping press machine operators
Rolling machine operators
Drilling and boring machine operators
Grinding, abrading, buffing, and polishing machine operators
Forging machine operators
Numerical control machine operators
Miscellaneous metal, plastic, stone, and glass working machine operators
Fabricating machine operators
Metal and plastic processing machine operators
Molding and casting machine operators
Metal plating machine operators
Miscellaneous metal and plastic processing machine operators
Woodworking machine operators
Wood lathe, routing, and planing machine operators
Sewing machine operators
Shaping and joining machine operators
Nailing and tacking machine operators
Miscellaneous woodworking machine operators
Printing machine operators
Printing machine operators
Photoengravers and lithographers
Typesetters and compositors
Miscellaneous printing machine operators
Textile, apparel, and furnishings machine operators
Winding and twisting machine operators
Knitting, looping, taping, and weaving machine operators
Textile cutting machine operators
Textile sewing machine operators
Shoe machine operators
Pressing machine operators
Laundering and dry cleaning machine operators
Miscellaneous textile machine operators
Machine operators, assorted materials
Cementing and gluing machine operators
Packaging and filling machine operators
Extruding and forming machine operators
Mixing and blending machine operators
Separating, filtering, and clarifying machine operators
Compressing and compacting machine operators
Painting and paint spraying machine operators
Roasting and baking machine operators, food
Washing, cleaning, and pickling machine operators
Folding machine operators
Furnace, kiln, and oven operators, exec. food
Crushing and grinding machine operators

Slicing and cutting machine operators
Motion picture projectionists
Photographic process machine operators
Miscellaneous machine operators, assorted materials

Fabricators, assemblers, and hand working occupations
Welding and cutting
Solderers and brazers
Assemblers
Hand cutting and trimming occupations
Hand molding, casting, and forming occupations
Hand painting, coating, and decorating occupations
Hand engraving and printing occupations
Hand grinding and polishing occupations
Miscellaneous hand working occupations
Production inspectors, testers, samplers, and weighers
Production inspectors, checkers, and examiners
Production testers
Production samplers and weighers
Graders and sorters, except agricultural

Transportation and Material Moving Occupation (014)

Motor vehicle operators
Supervisors, motor vehicle operators
Truck drivers, heavy
Truck drivers, light
Driver-Sales workers
Bus drivers
Taxi cab drivers and chauffeurs
Parking lot attendant
Motor transportation occupations
Transportation occupations, except motor vehicles
Rail transportation occupations
Railroad conductors and yardmasters
Locomotive operating occupations
Railroad brake, signal, and switch operators
Rail vehicle operators
Water transportation occupations
Ship captains and mates, except fishing boats
Sailors and deckhands
Marine engineers
Bridge, lock, and lighthouse tenders
Material moving equipment occupations
Supervisors, material moving equipment operators
Operating engineers
Longshore equipment operators
Hoist and winch operators
Crane and tower operators
Excavating and loading machine operators
Grader, dozer, and scraper operators
Industrial truck and tractor equipment operators
Miscellaneous material moving equipment operators

Handlers, Equipment Cleaners, Helpers, and Laborers (015)

Supervisors, handlers, equipment cleaners, and laborers
Helpers, mechanics and repairers
Helpers, construction and extractive occupations
Helpers, surveyors
Construction laborers

Production helpers
Freight, stock, and material movers, hand
Garbage collectors
Stevedores
Stock handlers and baggers
Machine feeders and offbearers
Garbage and service station related occupations
Vehicle washers and equipment cleaners
Hand packers and packagers
Laborers, except construction

OCCUPATION NOT REPORTED

Appendix C

The following list of medications is separated by class, trade and generic names:

Antidepressants

	<u>Trade Name</u>	<u>Generic</u>
	Paxil	
	Asendin	amoxapine
	Desyrel	trazodone
	Elavil	amitriptyline
	Ludiomil	maprotiline
	Norpramin	desipramine
	Pamelor}	nortriptyline
	Aventyl}	
	Prozac	fluoxetine
	Sinequan}	doxepin
	Apapin}	
	Surmontil	trimipramine
	Tofranil	imipramine
	Vivactil	protriptyline
	Wellbutrin	bupropion
	{Marplan	isocarboxazid
MAOI's	{Nardil	phenelzine sulfate
	{Parnate	tranylcypromine

Serzone

Sedatives/Hypnotics/Minor Tranquilizers

<u>Trade Name</u>	<u>Generic</u>
Atarax	hydroxyzine
Ativan	lorazepam
Benadryl	diphenhydramine
Buspar	bupirone
Dalmane	flurazepam
Halcion	triazolam
Librium	chlordiazepoxide
Miltown}	meprobamate
Equanil}	
Noctec}	chloral hydrate
Somnos}	
Placidyl	ethchlorvynol
Restoril	temazepam
Seconal	secobarbital
Serax	oxazepam
Tranxene	chlorazepate
Valium	diazepam
Xanax	alprazolam

Ambien

Antipsychotics

Trade Name

Risperidol
Haldol
Loxitane
Mellaril
Moban
Navane
Prolixin
Serentil
Stelazine
Thorazine
Trilafon
Clozaril

Generic

Risperidone
haloperidol
loxapine
thioridazine
molindone
thiothixene
fluphenazine
mesoridazine
trifluoperazine
chlorpromazine
perphenazine
Clozapine

Stimulants

Trade Name

Cylert
Ritalin

Generic

pemoline
methylphenidate

Antimanic Agents

Trade Name

Klonopin
Lithium
Tegretol
Valproic Acid

Generic

clonazepam
carbamazepine
depakene, depakote

Luvocz = OCD

Appendix D

Common Causes of Depressive Syndromes

Drugs:

- Cimetidine
- Beta Blockers (central vs. peripheral)
- Other Antihypertensive
 - Reserpine
 - Aldomet
 - Guanethidine
- Tranquilizers
- Steroids

Diseases:

- Alcoholism
- Cancer (esp. pancreatic)
- Endocrine
 - Thyroid (hypo or hyper)
 - Cushings

Infections:

- Mononucleosis
- Hepatitis
- Influenza

Neurologic:

- Parkinson's
- Huntington's (early)

CVA's (esp. left anterior)

MS

Tumors of CNS (rarely)

Hematologic:

- Folate Deficiency
- B Deficiency

Metabolic:

- Hypercalcemia

Common Causes of Mania

Drugs:

- Steroids
- L-Dopa
- Cocaine and Amphetamine
- Antidepressants
- Sympathomimetics (esp. decongestants)

Diseases:

- Hyperthyroidism
- MS

Appendix E

Organic Causes of Psychosis

Extrapyramidal:

- Huntington's Disease
- Wilson's Disease
- Parkinson's Disease

Infections:

- Encephalitis
- Syphilis

Demyelinating Disorders:

- MS
- Adrenoleukodystrophy

Epilepsy

- Neoplasms (especially temporal)
- Cerebrovascular
- Trauma
- Degenerative (Alzheimer's)
- Systemic illnesses (renal, hepatic)
- Porphyria
- Lupus

Endocrine (adrenal, thyroid, parathyroid)

- Vitamin B₁₂, folate deficiency
- Metabolic (sodium, calcium, blood sugar)

Drugs:

- DOPA
- Birth control pills
- Anticholinergic
- Anticonvulsants
- Antidepressants
- Antihypertensives (propranolol)
- Hallucinogens (PCP)
- Steroids
- Stimulants
- NSAIDs
- Antiobesity
- Cardiac (digitalis)
- Pulmonary (ephedrine)
- Drug withdrawal
- Miscellaneous (cimetidine, disulfiram)

Adapted from Cummings, 1986

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