

**DIAGNOSTIC INTERVIEW FOR GENETIC STUDIES**  
**REFERENCE MANUAL**

NATIONAL INSTITUTE OF MENTAL HEALTH  
MOLECULAR GENETICS INITIATIVE

For use with Version 3.0 of the DIGS

December 7, 1999



## **ACKNOWLEDGMENTS**

### **Version 2.0**

Development of the DIGS instrument and training manual was supported by the NIMH Diagnostic Centers for Psychiatric Linkage Studies (extramural grant numbers U01 MH 46274, 46276, 46280, 46282, 46289, 46318, and the Clinical Neurogenetics Branch, Intramural Research Program, NIMH).

We would like to thank members of the NIMH Diagnostic Centers for Psychiatric Studies Cooperative Agreement who participated in the development of the DIGS Manual, Debra Wynne, M.S.W., for her contributions and role as editor, Joan Cole for her assistance with editing, and Blaine Pearl for typing.

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### **Version 3.0**

DIGS version 3.0 was developed between November, 1997 and January, 1999 with contributions from:

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We gratefully acknowledge the assistance of the following members of the NIMH Collaborative Genomic Study of Bipolar Disorder in the development of this manual: Caroline E. Drain, M.H.S., Dean MacKinnon, M.D., Francis McMahon, M.D., William Scheftner, M.D., Sylvia Simpson, M.D., Carrie Smiley, R.N.

In addition, we extend our grateful appreciation to Caroline E. Drain, M.H.S., Eric T. Meyer,

M.A., and Carrie Smiley, R.N., whose writing, editing, and coordinating efforts were instrumental in development of this manual.

We extend our appreciation to the following experts and organizations listed below, whose instruments and manuals were adapted in part to develop the Diagnostic Instrument for Genetic Studies (DIGS) and accompanying manual. A complete bibliography appears at the end.

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## **INTRODUCTION TO DIGS REFERENCE 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 criteria<sup>1</sup> 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 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.

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<sup>1</sup>DSM-IV, DSM-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.

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**

The DIG's semi-structured design gives interviewers the freedom needed to extract the best information possible, while also maintaining a standardized pattern of interviewing. Whenever possible, questions should be read exactly as written. Skipping phrases may change the content of the question. Long questions may need to be broken into two questions for some subjects. If the subject looks confused after the question is read, the interviewer should try re-reading the question before rephrasing. Questions can be rephrased or followed up with additional probes when a response does not seem appropriate for the question, leading the interviewer to suspect that the subject did not understand. If this is done, interviewers should carefully document the dialogue in the left margin for the editor's reference. Sometimes subjects volunteer information before a question is asked. When this happens, interviewers may ask the question in a confirmatory way, but they should also pay careful attention to the subject's answer in case the information provided earlier is wrong or does not fit the question as it is worded.

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?”.

The DIGS needs to be administered in private, where the subject can respond in utter candor without fear of others finding out about possible unsavory or unpleasant behaviors. If privacy is not possible in a subject’s home, arrange to interview him/her in the research setting, or in a quiet public setting, such as a study room in a local library. The issue of privacy should be broached at the time of the initial telephone contact. By privacy, we mean that there will be a place where the interviewer can talk to the subject without others listening to his/her responses (that is, it is alright if someone else is in the house at the time of the interview, as long as that person is out of earshot). If a person should walk into the room during the interview, the interviewer should stop speaking until the person leaves. Young children may pose a problem, in that the subject may not be able to give his/her complete attention. The interviewer will have to use his/her judgment in these situations. If the interviewer has any doubts about the situation, s/he should call the site coordinator to get advice as to how to proceed.

### **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**

**Note: When the number of boxes provided in a question for coding purposes, is less than needed to represent a subject’s accurate response, (e.g., two boxes provided but answer is a number with 3-digits, write the entire number within the boxes provided)**

1. While filling in answers, no spaces should be left empty; zeros should be entered instead (e.g., age 7 = 07, four times = 04). The database can take many numbers even though only a few boxes are shown, so the most accurate number should be recorded.
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. However, in the psychosis section, the meaning of “current episode” is defined as occurring on day of interview.
6. Often - 3 or more times
7. Several - more than two
8. Ever - once or more
9. Frequently - 3 or more times
10. Repeatedly - 3 or more times
11. 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.
12. 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).
13. Adolescence is defined as the period from ages 12-18.
14. If the subject is currently ill, prioritize sequence of sections, e.g., if psychotic, go directly to the Psychosis section.
15. ONS AGE - Age of onset of first symptom  
REC AGE - Age of last symptom
16. Whenever uncertain how to code, write enough information in the left margin so that the editor can make a decision.
17. 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.
18. Site Optional - Each site’s Principal Investigator will determine which site optional sections will be used.

19. Averaging can be minimized by interviewer's judgment, e.g., 7-10 beers/night, code 10; 24-26 years old, code 25. In mania, a response of 0-2 hours of sleep would be coded 0 to capture the least amount.
20. 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)
21. 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) If uncertain whether it is a true organic precipitant, it is preferable to code unknown and record as much detail as possible in the margin so a decision can be made later.
22. 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)  
  
If the answer to a question is obtained from information in previous sections, code the answer without asking the question.
24. A "professional" is described as a physician, chiropractor, nurse, social worker, psychologist, counselor or clergy.
25. For items that are re-coded, strike through the original entry and record corrected information in right-hand margin.

26. Tally sheets for clustering. **(Site-Optional)**

The Depression, Mania, Alcohol, Tobacco, Marijuana, and Drug sections ask if symptoms occurred around the same time, or in other words: “clustered”. These co-occurring symptoms establish a syndrome of a psychiatric disorder. When asking these clustering questions, interviewers use tally sheets to list all the symptoms that occurred. The interviewer makes a mark down the left-hand side of the page for the symptoms the subject was positive for or responded “yes” to. Then the subject is asked to look over those symptoms and mark on the right hand side of the page those that occurred for the time frame being asked. The sheet remains within the DIGS to be looked at during the editing stage.

The time frame for clustering questions varies according to the disorder and the criteria system used. For example, DSM-III-R clustering in the substance sections requires symptoms to occur together within a one-month period, while DSM-IV requires a 12-month period.

**DIGS DO’s and DON’Ts**

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 minor changes to account for what the subject has already said, or to request elaboration or clarification. (SCID)
5. **DO** feel free to ask additional clarifying questions such as “Can you tell me about that?” or “Do you mean that...?”. (SCID)
6. **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)
7. **DON’T** necessarily accept the subject’s response if it contradicts other information or you have reason to believe it is invalid. (SCID)

8. **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)
9. **DON'T** use words that the subject does not understand. (SCID)
10. **DO** make sure that you and the subject are focusing on the same (and the appropriate) time period for each question. (SCID)
11. **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)
12. **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)
13. **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)
14. **DO** make sure your handwriting is legible, especially when recording medications.
15. **DON'T** use fractions or decimals.

## A: Demographics

This section was designed to obtain basic demographic information.

### Questions

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 was adopted “out” of the index family but has enough contact with the family to have them included in the study, 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 131. It is unnecessary to read the entire list to the subject.

Four possible codes have been allowed for both mother and father. Probe to determine as many ethnicities as subject can remember.

The purpose of this question is to collect data on ethnic origins that may be useful for analyses that are based on population genetic methods. Although human genetic variation is continuous across geographic or linguistic groupings, some major populations are widely considered to be differentiable from one another based on genetic data (Cavalli-Sforza et al. 1994). These include: 1) Sub-saharan Africans; 2) All other Africans; 3) Southeast Asians; 4) All other Asians; 5) Europeans; and 6) Native Americans. Subjects whose parents represent recent admixtures of two or more of these groups should be scored as “admixed,” but the constituent ethnic groups should be specified whenever possible. A category “Other” is available for scoring subjects whose origins lie in other groups, such as indigenous Australians. To allow mapping of this data on that collected with previous versions of the DIGS, a third digit can be scored (*Site Optional*) to specify certain subgroupings within the 6 major groups. Note that this classification is independent of the 5 NIH minority groups (which are based on social conventions, not genetic data) and the two classification schemes *cannot* be interconverted. For purely administrative purposes, the DIGS 3.0 Face Page contains a section in which subjects may self-report membership in one of the 5 NIH groups.

### Frequently-asked question: *How do I score...*

1. **African Americans whose ancestors were brought to the Americas in the slave trade.** Recent scholarship indicates that almost all people brought to North and South America in the slave trade originated in coastal central and western Africa (Gomez, 1998). Score as “African, sub-Saharan,” but be alert to admixture. Limited genetic data suggests that many African Americans have some European ancestors, and some “black Hispanics” are the result of Sub-saharan African, European, and Native American (Amerindian) admixture.

2. **Puerto Ricans.** Most people born in Puerto Rico or elsewhere in the Caribbean are admixed, largely from European and Sub-saharan African ancestors (Hanis et al. 1991). Score as “admixed,” but specify the major ancestral groups if known.
3. **Mexican Americans.** Most people born in Mexico or elsewhere in Central American are admixed, largely from European and Native American (Amerindian) origin (Hanis et al. 1991). Score as “admixed,” but specify the major ancestral groups if known.
4. **Russians and others born in the former Soviet Union.** The peoples of the former Soviet Union are ethnically heterogenous, but largely of European and Asian origin. If all grandparents are known to originate from West of the Urals and North of the Black Sea score as “European.” Those whose grandparents are known to originate from East of the Urals or South of the Black Sea should be scored as “All Other Asian.” Others should be scored as “admixed,” specifying both European and Asian origins.
5. **Filipinos.** Americans born in the Philippines are usually of mixed Southeast Asian and European origins and should be scored as “admixed,” specifying both Southeast Asian and European origins. A small minority of Filipinos are descended only from the indigenous peoples of the Philippines; such subjects would be scored as “Southeast Asian.”
6. **Subjects who belong to a recognized genetic isolate or outlier.** Examples include the Ashkenazim, Old Order Amish, and Sardinians. These subjects should be scored accordingly, but only when none of the grandparents are known to originate from outside that isolate/outlier group. When at least one grandparent is known to come from outside the isolate/outlier group, score the subject as “admixed,” but specify the constituent groups if known.

### Questions

Q6 The Protestant religious category includes:

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-lineal - For the purpose of this interview non-lineal 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. Include same sex partners in 2 if together for at least one year and make a marginal note.
- Q10 Do not count volunteer work. If unemployed, probe to determine if subject is disabled and note whether it is psychiatric or medical.
- Q10.a 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 132.
- Q10.b When coding for head of household, code based on most of his/her 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: (Probe to determine number of credit hours completed, i.e. 1 year college = 24 to 30 credit hours.)

Grades 1-12	= 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+

If more than one degree of the same level (e.g. two masters degrees), code the first as listed above and make a marginal note about the second degree. 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.

- Q12.a 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. Code these as “6-Reasons uncertain” and write a marginal note specifying the reason.



## **B. Medical History**

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

### **Questions**

- Q1 Does not include psychiatric problems. The medical records information sheet (page 151) 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 Circle “DX” if the subject was diagnosed by a physician.
- Q3.a Do not include hormonal imbalance during menopause.
- Q3.b Probe for a description of headaches. Migraine headaches are usually described as acute, episodic, throbbing, one-sided, and with nausea and visual disturbance.
- Q3.d Lupus is a chronic, autoimmune disease which causes inflammation of various parts of the body, especially the skin, joints, blood, and kidneys. The most common symptoms of lupus include: achy joints, fever over 100 degrees, arthritis, prolonged or extreme fatigue, skin rashes, anemia, kidney involvement, pain in the chest on deep breathing, butterfly shaped rash across the cheeks and nose, sun or light sensitivity, hair loss, Raynaud’s phenomenon (fingers turning white and/or blue in the cold), seizures, and mouth or nose ulcers.
- Q3.g 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. Vitamins are not included here but herbal preparations such as St. John’s Wort and Melatonin would be.
- 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 unless birth and/or early developmental delays resulted from their use. In these cases document the specific that resulted. Examples from A and B can be given to clarify the answer to this question.

- Q7.a Include miscarriages, stillbirths, and abortions. Record subject's response. Twins or other multiple births are counted as one pregnancy.
- Q7.c Specify degree of emotional problems and whether treatment was sought.
- Q8 (Menstruation) Ask about mood changes, either depressed, high, or irritable. Specify direction, duration, and severity of any mood change.
- Q9 (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. The important part of the question is really Q.9.a which attempts to illicit any emotional problems associated with menopause.

## **C1. 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.

### **Questions**

#### 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 having the subject say 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 listed in the DIGS. Score one point for each part correctly executed.

Score 0-3.

Q6 Cognitive State

Reading. Hand the subject the MMSE Card that reads “Close your eyes.” Ask him/her to 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 this page, 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. Hand the subject the MMSE Card that contains the drawing of the two intersecting pentagons, 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 provided in the back of the DIGS, 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 C2 is a telephone version of Section C1.**

## **D. Somatization**

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

The essential feature of Somatization Disorder is a pattern of recurring, multiple, clinically significant somatic complaints. A somatic complaint is considered to be clinically significant if it results in medical treatment (e.g., the taking of medication) or causes significant impairment in social, occupational, or other important areas of functioning. The multiple complaints cannot be completely explained by any known general, medical condition or the direct effects of a substance.

DSM-IV requires the following for somatization disorder: (1) subject must have a history with onset before age 30 of many physical complaints. and results in treatment being sought or significant impairment in social, occupational, or other important areas of functioning;(2) symptoms listed in the section that describe at least 4 pain symptoms, two gastrointestinal symptoms, one pseudoneurological symptom, and one sexual symptom; (3) each positively coded symptom cannot be fully explained by a known general medical condition or the direct effects of a substance (e.g., a drug of abuse, a medication; (4) when there is a related general medical condition, the physical complaints or resulting social or occupational impairment are in excess of what would be expected from the history, physical examination, or laboratory finding; (5) the symptoms are not intentionally produced or feigned (as in Factitious Disorder or Malingering)

### **General Instructions**

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.

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

Impairment code 2 refers to symptoms that are a direct effect of alcohol and/or street drugs only. Symptoms secondary only to the use of 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.”

## **Questions**

- Q1.a) In order to meet criteria for DSM-IV somatization disorder, the subject must have a history with onset before age 30 of many physical complaints.
- Q2 This question is not asking if the subject ever had this pain, but if s/he has ever been bothered a lot by problems with particular body pains. Ask this question as written. For all positively coded responses in Q.2a-i, additional probing and coding will be required if and when the subject proceeds through the section to Q.6a-k (where additional information will be coded).
- Q2.c/2.d Sometimes the subject will answer, after s/he has been asked about pains in the joints, that s/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.”
- Q3-15.c The level of impairment codes (0,1,2,3,4) is a method of determining both the severity and the etiology of each symptom.

## **Tip: Obtaining Information**

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 a lot 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 a lot with your life or activities?”

In this case, the interviewer is trying to determine whether or not the pain was severe enough to cause the subjects 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.

### **Questions**

- Q3.i If subject reports having had a seizure or convulsion, make sure Q3.k-3.k.3 in the medical history section also reflects this information.
- Q6.a-j These questions cover all the pains already asked about and listed in Q2.a-i (page 14) . Refer back to coding of these previously asked questions in order to determine which one’s to ask additional details about.
- Q6.f FOR FEMALES ONLY (painful sexual intercourse) does not include the time period following childbirth.
- Q9.e “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).

Q15.b “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.



## **E. Overview of Psychiatric Disturbance**

The overview is an open-ended history of emotional problems that the subject acknowledges. If there are several different problems, ask about 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 or whose insight is fair to poor, the interviewer may need to 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. However, if the subject is better able to provide reliable information, in the open format style of the overview, additional time should be spent in this section so as to elicit the necessary data that is relevant to the study.

### **Questions**

- Q2.b Age of onset: Earliest age at which professional advice was sought for psychiatric reasons.
- Q2.c 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 a full-time homemaker. (OPCRIT)
- Q3 If the subject initially answers "no" to this question but then, in the Major Depression and/or Mania section(s) s/he codes positive for incapacitation based on complete inability to function in primary role for 2 days or more, then re-code this question as "yes".
- Q4.a If the subject has been psychiatrically hospitalized and then immediately discharged to another hospital, this is counted as one hospitalization. This applies to discharges to a day hospital program as well and would be counted once in the inpatient hospitalization total, only. Make marginal notes to capture the discharges.
- Q4.d This question includes inpatient and day psychiatric hospitalizations as well as alcohol and/or drug treatment.
- Q5.a Courses refers to the number of episodes in which a subject received treatments of ECT. For example, 12 treatments during one hospitalization for depression would equal one course.

Q6 If the subject has a long history of illness, it may be helpful to read the medications listed after Q6, page 21 of the instrument while having the subject follow along with the medication card included in the interview.

Remember to ask the subject whether s/he ever took any “other medications(s) for emotional or mental problems that aren’t listed on the medication card. If “yes”, list these in the “other medications/herbal preparations” category.

Q8 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 or the timeline style. The important points to determine, prior to the conclusion of this section are:

1. presence/absence of psychosis
2. presence/absence of affective syndromes
3. substance abuse
4. relationship (overlap) of #1 and #2 and #3
5. first/last psychiatric hospitalization
6. medications taken, professionals seen (i.e., type and how many)
7. (if applicable) when the two most severe (memorable episodes of Major Depression and Mania occurred in relation to the other psychiatric disturbances

The timeline is a valuable tool and can be used to clarify issues, such as organic precipitants, comorbidity and schizoaffective disorder. Be aware that medical records will need to be requested on all psychiatric hospitalizations and outpatient psychiatric treatments by using the form on page 151 of the DIGS or by listing the various treatment facilities here in the overview.

## **F. Major Depression**

This section provides diagnostic criteria for major depression using DSM-III-R, DSM-III, RDC, modified RDC (Gershon), ICD-10, and DSM-IV.

The interview assesses the two most severe episodes of major depression. Because a large proportion of individuals with major depressive episodes have never been treated, and may not recognize the disorder, the screening questions are designed to be inclusive. Subjects are asked whether they have ever experienced at least one week of persistent sadness, anxiety, irritability, or apathy/anhedonia. A “yes” response to any of these (1 to 1c) are sufficient to proceed with the Major Depression section. If the subject is uncertain or answers “no” to the screening questions, but has revealed other information in the Overview that suggests there might have been an episode of Major Depression, then answer “yes” for question 2 and explain why depression is suspected. Then proceed with the Major Depression section. If there is doubt (i.e., question 2 is “unk” or “unknown”), then the interviewer should go on with the section and document the most severe episode that might have been a depression.

For each episode described the subject is asked whether this is a current episode. A “current episode” is defined as one in which at least one week of persistent sadness, anxiety, irritability, or apathy/anhedonia has occurred within the past 30 days. While this episode might have begun months/years before, at least one week of it overlapped with the past 30 days prior to interview.

**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 whether they slept too little or too much. Some response codes, as well as the quantitative measurements of time, weight, etc., are not enclosed in boxes. Data should be recorded there as it may add weight to later analysis of symptom patterns.

If the subject has experienced a sufficient number of specific symptoms during the course of the episode in question, the next series of questions covers additional symptoms, treatment, and the level of impairment from the depressive illness during that episode. Next, the subject is queried about possible medical, personal, or biochemical triggers for depression (e.g., grief, pregnancy, substance abuse, medical illness), and finally, about evidence for a mixed state (mania and depression simultaneously).

### **Questions**

Q1, 1.a-c Inclusion criteria. Subjects should have experienced low, anxious, irritable, or apathetic/anhedonic mood persistently for at least one week for a “yes” answer.

Q1.a The term “irritable” is taken to mean testy and tense about things that normally don’t bother you.

Q2 If the subject has provided other evidence for depression, but is unable to answer “yes” to the screening questions, answer “yes” here and explain why depression is

suspected. For example, if a subject reports in the overview having dropped out of college because of poor grades when previously the subject had done well, or when a subject reports having stayed in bed for a month because of stress, or when a subject was prescribed an antidepressant because of nerves or marital problems, the subject should be asked specifically about other symptoms of depression, even if s/he does not recall or if s/he minimizes the change in mood.

- Q4 If the subject is uncertain about the most severe episode, probe for the episode that caused the most severe impairment; hospitalization, job absence, loss of marriage, etc. Code the month and year the episode began. If the subject is uncertain about the month, ask for the season (use FEB for winter, MAY for spring, AUG for summer, NOV for fall); if that is uncertain, code UUU for month.
- Q4.b Duration of episode until complete remission or transition to another state of illness (e.g., mania.)
- Q4.c-e As with the screening questions, circle all significant mood states present during the episode being described.
- Q5 Answer “yes” if this episode is the same one identified in question 3.
- Q6.a If there has been a mixture of weight gain and loss within one episode, code the greatest difference in weight change.
- Q6.d The amount of time recorded here should be consistent with the length of the episode recorded in Q4.b., i.e. an episode of six weeks and a weight loss over 12 weeks would not be consistent.
- Q7-7.f Check for the symptom of a change in sleep pattern. If the subject answers “yes” to Q7, Q7a-7f are used to indicate the type of change in sleep pattern. This can be sleeping either too little or too much or possibly, both. For example, a subject might report having difficulty falling asleep at night, but then sleeping from 2 am to 2 pm; this would be a “yes” to 7a and also 7f. In some situations where sleep is interrupted by external factors (post-partum periods, for example), ask if the subject was unable to sleep given the opportunity.
- Q8-9 These symptoms may 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.

- Q12-13 The interviewer might wish to preface this question by saying something like “I don’t think this, but I wonder if you had these feelings when you felt low”. Otherwise, some subjects may believe the question was motivated by the interviewer’s moral judgment over something revealed earlier.
- 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 episode being coded, return to Q4 and discuss other episodes that might have been major depressions to try to find another severe episode that might meet criteria. If no other such episode can be found, skip to section G.
- Q18 Code “yes” only if five symptoms (4 symptoms plus depressed mood) are present (including Q4 and Q6-16) nearly every day during a 2-week period. The Depression Tally Sheet can be helpful here, refer to instructions on page 12.
- Q20-21 Specify the content of the delusions or the hallucinations. Q22 will be coded based on information obtained here. Probe for more information as needed and get examples.
- Q20.a-c  
&21.a-c The object is to determine whether the subject experienced delusions or hallucinations for at least two weeks (14 continuous days) in the **absence** of a major depressive syndrome.
- Q22 Determine if the psychotic symptoms were mood-congruent or mood-incongruent. If the mood is depressed, the content of mood-congruent delusions or hallucinations would involve themes of personal inadequacy, guilt, disease, death, nihilism, or deserved punishment. Paranoid delusions related to depressive themes are considered mood-congruent. Mood-incongruent psychotic features might be grandiose or bizarre, including symptoms such as thought insertion, thought broadcasting, and delusions of being controlled, where no clear depressive meaning is attached to the symptom. Only one example is needed in order to rate an item mood-incongruent (write all examples in margins). If unsure how to code 22, code as “unknown” and document the content and the subject’s sense of the meaning of the symptom as thoroughly as possible. If the content of the psychotic symptoms is grandiose be sure to consider a mixed or rapidly cycling bipolar state as possible (see Q37).
- Q22.a Was the subject more concerned or bothered by the symptoms of depression, or absorbed by the hallucinations or delusions?
- If unsure whether to ask 22.a** (because of uncertainty as to whether the content of the subject’s psychotic symptoms would be considered mood-incongruent or congruent in Q22), ask 22.a and go over the final coding issues with you PI and/or Project Coordinator.

- Q23-26 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. List any psychotropic medications prescribed during this episode. After coding Q23-26: if the subject received ECT (shock treatments) or was hospitalized (inpatient and/or day hospital) for 2 consecutive days or more, s/he is considered to have been incapacitated and you can skip to Q29 and code “Incapacitation” (2).
- Q27-28.b 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 consecutive days, s/he is considered to have been incapacitated. If, on the other hand, the major role 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.
- Q27 A homeless person would be coded 4 = Other.
- Q28 On the “Specify” line note **how functioning was affected** during this depressive episode and for how long.
- Q29 Make notes on the “specify” line to justify your coding.
- Q30 If there was no incapacitation or impairment as evidenced by ECT, hospitalization for 2 days or more, or inability to function in major role, or decrease in the quality of the most important role performance, ask this question about impairment in a minor role.
- Q30.a Evidence for “clinically significant distress” in the absence of other evidence of impairment or incapacitation might include the pursuit of outpatient treatment, change in mood or behavior noticeable to others, the abandonment of important social activities. In general, if the subject otherwise meets full criteria for depression but denies impairment (e.g., felt miserable but soldiered on) the lack of documented functional impairment should not negate the depression. Probe the subject on what effects individual symptoms might have had (e.g., “You were saying you felt tired and were unable to concentrate, but your performance at work wasn’t affected? What effect did your fatigue and indecision have on you?”)
- Q31-35 These questions are used to determine if the episode was “clean” (i.e., was not triggered and sustained by pharmacologic, medical, or hormonal stressors). The question should not be coded “yes” based on the subject’s initial answer. To be considered a precipitant, a change (e.g., a birth, an illness, 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 **for at least two weeks following** the cessation of the illness, medication, drug, or alcohol use generally implies the episode was not sustained by the precipitant, and is probably a

“clean” episode. Close record of the subject’s responses may prove critical in making a final diagnosis.

- Q36 Episodes that begin within 2 months of a death of a relative, spouse, or unusually close friend may or may not be diagnosed as Bereavement. If the episode persists longer than 2 months, there is significant functional impairment and severe symptoms, then the episode may be a “clean” Major Depressive Episode. If there is doubt about the episode, try to code another one.
- Q37 Explain carefully that the manic symptoms in the mixed state should have overlapped with the episode of depression. The mood may fluctuate (i.e., rapidly, from low to irritable or elated) or may be incongruent with other emergent symptoms (i.e., low mood with agitation, racing thoughts, distractibility). It may be helpful to preface the questions, e.g., “You described being unable to sleep during this episode of depression; but during the time your mood was fluctuating did you find you felt less need for sleep, or were not tired after a sleepless night?” If the subject switched into a persistent manic episode, code that episode in section G.
- Q38.a-70 These are done exactly as questions 4-37. This episode is to reflect the subject’s most recent severe episode that s/he remembers well.
- Q71 Before responding “no”, ensure that the subject has had no other episodes of major depression that might be free of medical or pharmacologic precipitants, or bereavement. If another, potentially “clean” episode meeting symptomatic and impairment criteria can be coded, return to 38 and code that episode in the margin.
- Q72 How many clean episodes?
- Q73 If no clean episodes, how many with possible organic precipitants (note that organic precipitants may reduce the certainty of a diagnosis, but do not necessarily negate the diagnosis of major depressive episode).
- Q76 A course of ECT is a series of treatments, not the number of treatments. For example, 12 treatments during one hospitalization for depression would equal one course.
- Q77 Medical treatment for depression might include antidepressants, ECT, or light therapy.
- Q78 For individuals with 2 or more depressions, did the majority of depressions begin during any particular season? If only 1 depression, or no pattern, circle “0”.

See Appendix D on page 141 for a list of common causes of depressive syndromes.

## G. Mania/Hypomania

This section elicits clinical data needed for the diagnostic criteria for mania and hypomania using DSM-IV, DSM-III-R, RDC, modified RDC, and DSM-IV. The purpose of this section is determine if the subject has ever had a manic or hypomanic episode, and if so, to document up to 2 such episodes in detail. In general, a manic episode is a relatively discrete period of elevated or irritable mood leading to functional incapacitation.

“Incapacitation” is defined as inability to hold a conversation, experiencing psychotic symptoms, requiring inpatient hospitalization, or *complete* inability to carry out the principal role (at home, work, or school) **for at least 2 consecutive days**.

The criteria for hypomania vary considerably across diagnostic systems, but hypomania is never accompanied by functional incapacitation or psychotic symptoms. If the full criteria for a manic or hypomanic syndrome are not met, but there is evidence of some manic symptoms (e.g. near hypomanias), this should be noted in the narrative.

Please note that unlike the DIGS 2.0 or the SADS-L, the DIGS 3.0 has only one section to elicit both manic and hypomanic episodes. The interviewer does not need to reach a judgement in advance about whether a particular episode qualifies for mania or hypomania; all of the same questions are asked for both.

The DIGS 3.0 provides for coding of up to 2 manic/hypomanic episodes. The first coded episode should be the most severe. In deciding which episode to code as “Most Severe”, consider the patient’s report of symptom severity, degree of impairment, psychotic symptoms, or hospitalization. The “Other Episode” should be the most typical and severe episode that the subject can recall well. The Other Episode should be coded if the “Most Severe” episode was in any way atypical, marginal, or associated with an organic precipitant. Since DSM-IV excludes the diagnosis of bipolar I disorder when manic episodes occur exclusively during antidepressant treatment (including light therapy), if a subject reports that the Most Severe episode coincided with such treatment, try to elicit an Other Episode that occurred in the absence of such treatment. If manic symptoms have been present during the past 30 days, the current episode can be coded as the Other Episode.

### Questions

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

- Q1.a 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.
- Q1.b Mania can be experienced as feeling angry or irritable as well as feeling good or high. This question is used to cover this possibility.



- Q1.c This question is meant to screen for hypomanic episodes that might not have been detected by Q1.a or b. When probing here, be alert for periods that the subject may describe as “racing”, “pumped,” or “wired.” Periods of increased creativity or productivity may also be worth exploring.
- Q1.d Yet another probe for manic/hypomanic episodes, aimed at subjects who have difficulty recalling or describing their mood.

Interviewer probe following Q1.d:

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 how you have been feeling recently.”

- Q1.e In order to meet criteria, symptoms of mania must last persistently throughout the day or intermittently for 2 days or more.
- Q1.f 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 Q1.a-f.
- Q5-13 Check on manic symptoms necessary for criteria. If the subject’s mood is elated or both irritable and elated, at least 3 symptoms are necessary for the diagnosis; if the mood is irritable (but not elated) DSM-IV calls for 4 symptoms.
- Q10.a-b If the subject reports zero hours of sleep at any time during the episode 00 should be coded in Q10a. 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.
- Q13.a Meant to establish the temporal congruence of at least the minimum number of symptoms necessary for diagnosis. The Mania Tally sheet can be helpful here, refer to instructions on page 12.

- Q15 This can be a very important question since inability to hold a conversation is considered sufficient to rate the subject as incapacitated. The diagnosis of mania may thus rest disproportionately on this single question. Rapid speech alone is not sufficient; the subject must report talking without regard for others' wishes to communicate. Often, subjects with this feature will report not letting others "get a word in edgewise," or being unable to concentrate sufficiently to attend to another's statements.
- Q18 Determine if the psychotic symptoms described in Q16-Q17 were mood-congruent or mood-incongruent. According to the DSM IV, 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 also considered mood-congruent. Mood-incongruent psychotic features are delusions or hallucinations whose content does not involve the typical manic themes. Included are such symptoms as persecutory delusions that are clearly not related to grandiose ideas or themes; thought insertion; delusions of being controlled; and thought broadcasting, insertion, or withdrawal. It is important to note the details underlying your decision in the margin.
- Q19-26 These questions are used to determine the subject's functioning during the episode. By DSM-IV, hypomanias lead to an unequivocal change in functioning (impairment *or* improvement) that is observable by others, **but do not cause marked impairment**. Note that an *observable* change may have occurred without having actually been *observed* by someone, e.g., subject drives at excessive speeds but is not caught. **Manias must involve a marked impairment** in occupational functioning or in usual social activities or relationships, or necessitate hospitalization, or have psychotic features. 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 any psychotropic drug, including antipsychotics. Also score "yes" if prescriptions the subject was already taking were adjusted or discontinued (e.g., discontinuation of an antidepressant).
- Q24 Under "Specify" note how functioning was affected during this mania/hypomania and for how long. This functional change can be viewed by the subject as improvement, impairment, or incapacitation.
- Q24.b Regardless of coding in 24a this question is asked of all subjects (new skip pattern in the DIGS 3.0) for diagnosis of DSM-IV hypomania: May score "yes" if an *observable* change occurred without having actually been *observed* by someone, (e.g., subject drives at excessive speeds but is not caught).

Q25 Note details of change in functioning under “Specify”.

If this question is coded a “0” or “3”, the diagnosis of Bipolar 1 can still be given IF Q26 elicits what DSM-IV defines as, “marked impairment in occupational functioning or in usual social activities or relationships with others”. In this case, Q25 would retain original coding and Q26 would be coded “yes”. The specify line would indicate the marked impairment (or incapacitation) uncovered in a role that does not represent the subject’s major one.

Q26 Needed for RDC mania if “no change” or “improvement in functioning” is coded in Q25.

Q27-30.c These questions should not be coded “yes” based on the subject’s initial answer. To be considered a precipitant, a change (e.g., a birth, an illness, 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 **for at least two weeks following** the cessation of illness, medication, drug, or alcohol use generally implies the episode was not sustained by the precipitant, and is probably a “clean” episode. Close record of the subject’s responses may prove critical in making a final diagnosis.

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 weeks. If you suspect an organic precipitant, try to determine if there has been at least one clean episode, i.e., no organic precipitant. See Appendix D on page 141 for a list of common organic causes of mania.

Q28-29 Antidepressants should be coded in Q29 only. This detail is important for DSM-IV Bipolar I Disorder. The DSM-IV states that the episode must be “clearly caused” by antidepressant treatment. There are several factors to take into account in making a judgment. Temporal correlation between antidepressants and the episode is one factor, but others to consider include: consistency (were there other times when antidepressants were given without a resulting mania?), dosage (lower doses are less likely to be “causative”), severity of mania, etc. The DSM-IV leaves a fair amount of room for judgment here. If in doubt, score the episode, discuss the issues in your narrative summary, and let the best estimate clinicians (who may have more information) decide.

Q31-31.a

& 59-59.a These questions are meant to determine whether the episode just discussed met criteria for a Mixed Episode. The full criteria for both mania and major depression must be met nearly every day for at least a week. The symptoms elicited here are pertaining specifically to depression and may need clarification for the subject, i.e., sleep difficulty refers to sleeping too much or too little but not a need for less sleep. A change in activity level refers to psychomotor retardation or agitation, not excessive purposeful activity such as may be found in mania. It is recognized that some episodes may have symptoms that are extremely difficult to categorize appropriately.

Q32 After considering the criteria noted at the beginning of this section of the DIGS 3.0 manual, note here whether an “Other Episode” will be rated. If in doubt, proceed through an “other episode”.

Q60 Answer this question based on information obtained while coding specific episodes or through your attempts to establish another clean episode. Antidepressant-associated episodes may be counted as “clean” (DSM-III-R) or “unclean” (DSM-IV) depending on which criterion system is given priority.

When rating number of episodes, (if the subject has had any manias) count the number of manic episodes, or, (if the subject has had no manias) count the number of hypomanic episodes (i.e., do not lump manic and hypomanic episodes together when they are distinguishable).

Q62-62.a Be sure to ask about both inpatient and day hospitalizations (new DIGS 3.0 item).

Q64-65 These questions are aimed at detecting rapid cycling. By DSM-IV, rapid cycling is present when at least 4 episodes meeting criteria for major depressive, manic, hypomanic, or mixed episode have occurred in any 12-month period. Different episodes are demarcated by either a 2-month remission (partial or full) or a switch to an episode of opposite polarity (e.g., manic to major depressive).

## H. Dysthymia

This section elicits the signs and symptoms of dysthymic disorder as defined by DSM-IV. Dysthymia cannot be diagnosed in the presence of bipolar disorder, however information about chronic mild depressive symptoms is important in charting the course of illness. Therefore, it is site optional to score this section for subjects who already meet criteria for a bipolar disorder.

Dysthymic disorder describes a depressed mood and associated symptoms that occur for most of the day, more days than not, for at least 2 years. 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. Chronic periods of low mood that are contiguous with *any two-week period* meeting criteria for major depression should be scored as major depression.

### Questions

- Q1.a If the subject has had major depression(s) and dates the onset of dysthymia to the same period, make attempt to find another date for the onset of the dysthymia (see notes for question 2).
- Q1.b If subject is currently in an episode and the episode has not ended, put in current age and make a marginal note explaining it is ongoing.
- Q2 An episode of major depression during the first 2-years of the dysthymic period (1 year for children or adolescence) or during the 6 months just prior to the onset of the dysthymic period excludes that 2-year period from consideration. Attempt to establish if another 2-year period existed that was not related to a major depression.
- Q3 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, 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, it is site optional to complete the section anyway obtaining information on the period even though it might be ruled out.
- Q5 A period of normal mood lasting for more than two months in a row 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.
- Q6-6.a This is necessary for DSM-IV, which specifies that the symptoms must cause clinically significant distress or impairment in social, occupational or other important areas of functioning.

## I. Cyclothymic Disorder

This section elicits the signs and symptoms of cyclothymic disorder as defined by DSM-IV. Cyclothymic disorder is a relatively persistent (often life-long) pattern of mood disturbance characterized by frequent shifts between normal, high, and low moods, with accompanying symptoms. If the subject has reported episodes of major depression or mania, distinguish these from the less severe, fluctuating mood changes typical of Cyclothymia by beginning questions with: [**“Other than the severe episodes you mentioned...”**] Many subjects with cyclothymia will have already reported numerous hypomanic episodes. In this case, the interviewer must look for periods of depressive symptoms and establish chronicity.

### Questions

- Q7        The aim here is to establish a relatively persistent (often lifelong) pattern of fluctuating mood disturbance / a consistent pattern or ups and downs experienced by the subject.
- Q8        An episode of major depression or mania during the first 2-year period of cyclothymia or during the prior 6 months excludes that 2-year period from consideration. Attempt to establish if another 2-year period existed that was not related to a major mood episode.
- Q11       A period of normal mood lasting for more than two months in a row during a 2-year period of cyclothymia 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.
- Q12-12.a This is necessary for DSM-IV, which specifies that the symptoms must cause clinically significant distress or impairment in social, occupational or other important areas of functioning.

## **I. Alcohol Abuse and Dependence**

This section assesses both alcohol consumption and diagnostic criteria for alcohol abuse and dependence using Feighner, DSM-III-R, and DSM-IV. Two additional questions are included to address ICD-10 criteria

### **General Instructions**

**Skip outs:** There are four separate skip-outs for this section. First, on page 68, if the subject has never had a full drink of alcohol. Second, on page 69, if the subject never drank regularly and never got drunk. Third, on page 70, if the subject never had more than 3 drinks in a 24-hour period. Fourth, on page 70, if the subject answers no to the 4 CAGE questions, #'s 9-12

### **Questions**

Q2 If the subject has had at least one drink, then s/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 s/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 s/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 an "Unknown" ("UU") code.

- Q5.a "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/her, 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 (Q4 is coded "yes") then after asking Q5, 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.
- Q9 Do not code yes if they only felt they should cut down because they were hung over the next day.
- 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?"



- Q20 Many people decide not to drink at certain times, but the intent of this item is that rules were developed specifically to control drinking. Any such rule would count, not just those mentioned here.
- Q21 The intent is to determine if the subject has chosen drinking over other activities.
- 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.
- Q30 The intent is that the subject combined drugs despite the danger, not because of it. Some medications that would be included here are: sedatives, antiepileptics, MAOI's with wine or beer, and oral hypoglycemics. This is not a complete list. Interviewers may want to record information in the marginal notes and review it with a clinician.
- Q31 This question assesses withdrawal symptoms when the subject stopped or cut down on drinking, not referring to a hangover. 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.
- Q32 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.
- Q33 This assesses drinking despite pre-existing physical health problems that could be exacerbated by drinking. Stress "physical." Things like depression, mood swings, etc. do not count. Pregnancy is not counted as a serious physical illness if the subject was only told that drinking would harm the fetus and not the mother. Illnesses such as the flu, stomachaches, measles, etc. do not count as serious. Insulin dependent diabetes counts. However, diabetes that is controlled by diet only counts if the subject consumed more than an average of one drink per month.
- Q34 This question needs to be asked slowly, breaking it into subparts. If subject denies all subparts, code "no" in the stem. If subject endorses a subpart, code "yes" in the stem and then ask the corresponding problem in a-e, coding "no" for anything not endorsed in stem question.
- Q34.a-e 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.

- Q35.a Professional is defined as a physician, psychologist, social worker, nurse, or clergyman.
- Q36-37 These questions are important for DSM-IV and 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. The tally sheets can be used here. Refer to instructions on page 12. If less than two starred items code Q37 no.
- Q37.a-b The word “persistently” means continuing for several days.
- Q38 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.

## J. Tobacco

The Tobacco section assesses DSM-IV Nicotine Dependence for cigarette smokers.

### General Instructions

**Skip-outs:** There are 4 separate skip-outs for this section. First, (on the top of page 77 and after Q1), if the subject has never tried any form on tobacco. Second, (on the bottom of page 77 and after Q2b), if the subject never smoked a total of 100 cigarettes (this is also a site-optional skip out even if the subject smoked enough to score Q2b positive – please consult your PI for determination of how much of the section will be completed by your site). Third, on page 79 after Q8 and fourth, (at the top of page 83), if this subject codes positive in less than 3 boxes on the tally sheet.

### Questions

1 pack of cigarettes = 20 cigarettes

Q1a.1-4 Subject is asked if s/he has ever used tobacco. Only count using a **whole** cigarette, cigar, pipeful, or pinch. A few puffs of either a cigarette, cigar or pipe is not sufficient to code “yes”.

Q2.a.1 To determine amount smoked (when different rates occurred): Code the average number of cigarettes the subject smoked and the total length of time the subject smoked. In the case illustrated below, which would equal 1 pack a day (20 cigarettes) for the duration of 15 years.

Example: ½ pack of cigarettes-	15 to 19 years old	= 10 cigarettes/day over 4 yrs.
1 pack of cigarettes-	19 to 26 years old	= 20 cigarettes/day over 7 yrs.
1½ packs of cigarettes-	26 to 30 years old	= 30 cigarettes/day over 4 yrs.

Average usage:

60 total cigarettes/day ÷ 3 different periods = 20 cigarettes/day over 15 total yrs.

Q2.b This question determines which subjects will continue in the section, and which will skip to the Marijuana section. Smoking a total of 100 or more cigarettes **ONLY** in one's lifetime is necessary to continue.

Q3.a This question assesses the most typical pattern of cigarette smoking. “Regularly” refers to any length of time that the subject feels accurately assesses a regular pattern for him/her. In other words, it is a period of days equal to whatever the subject, in his/her opinion, feels “regular” means to them. Therefore, if the length of time for “regular smoking” is equal to even 1 day, that period should be coded in the box provided. If however, as often happens with our subject's, their smoking pattern has changed over time, then an appropriate follow-up question may be asked such as, “If

you had to determine a typical number of days smoked when you were smoking regularly, what would that number be?"

- Q3.b The threshold for this question is 20 or more cigarettes in one day for at least 2 days out of seven. Therefore, 10 cigarettes for seven days would not count.
- Q4-8 **Note:** The subject should focus on the month (or longer period) when s/he was smoking or using tobacco the most. We are not interested in a period of a few days when the subject was smoking heavily. If the subject always used cigarettes at the same level and reports that s/he had no period of "heaviest" use, then ask the subject to focus on the time when s/he was smoking regularly.
- Q4 This question is non-diagnostic. We ask "about" how many minutes after waking did the subject usually smoke his/her first cigarette. Code for the smallest duration.
- Q6 Emphasize "places where it was forbidden." The given examples may not fit every situation (e.g., 10-20 years ago non-smoking regulations were not as common). The interviewer may need to probe with other examples as needed, such as: church, school, work, library, hospital, etc.
- Q8 The question doesn't ask specifically about smoking in bed, but whether the subject smoked when s/he was very sick. However, if the subject did endorse smoking in bed, be sure to code that in Q12.
- Q9 The question asks about chain smoking cigarettes (i.e. smoking one cigarette right after another.)
- Q9.a This question codes the total number of consecutive hours in which the subject chain-smoked.
- Q9.b Emphasize the terms "everyday" or "nearly everyday". The intention of this question is to code the length of the period in which the subject chain-smoked on a daily or nearly daily basis (not the number of hours of chain smoking).
- Q12 This question addresses "Abuse", not "Dependence", so it is not a tally sheet item. Even if the subject claims smoking in bed isn't dangerous (e.g. s/he would sit up) count the behavior as "yes".
- Q13 Get examples of **why** the subject thought about stopping or cutting down (e.g., it's bad for their health, others thought they should, subject felt that smoking made him/her smell bad etc.). If the subject's desire is motivated solely by pregnancy, code "no" and note in the margin the condition.

- Q13.a The subject is asked if s/he has ever tried to quit using tobacco. Quitting smoking during pregnancy counts here because the intent of this question is to count as positive any directed action a subject might take to attempt to quit. Switching from one form of tobacco to another does not count as quitting (e.g., stopped smoking cigarettes but chewed tobacco instead). If the subject states that s/he has never tried to quit using tobacco, but at some point stopped using tobacco, code NO. We will still be able to capture the subject's longest period of abstinence in Q14.
- Q15 This question covers the possible withdrawal symptoms that can result from an abrupt cessation or reduction in the amount of nicotine used.
- Q17 These problems should stem from the use of tobacco, not withdrawal. Withdrawal problems are coded in Q15. It is reasonable to code problems that stemmed from tobacco use and continued even after the subject stopped using tobacco.
- Q17.a Obtain examples of how functioning was affected.
- Q 17.b This question is asked only if 17.a is a "yes".
- Q18 In this question, we ask if tobacco caused persistent or chronic health problems. Shortness of breath is not considered a serious health problem, so it would not be coded.
- Q19 This question asks if the subject smoked when s/he had a condition that was worsened by smoking. Examples of illnesses that count are asthma, bronchitis, pneumonia, and gum disease. If high blood pressure wasn't coded in Q18 (i.e., the subject didn't endorse that tobacco use caused high blood pressure), then high blood pressure can count in Q19. A local clinician should review illnesses that are not clearly exacerbated by smoking.
- Q21 This question is important for DSMIV criteria for tobacco dependence. The questions reviewed for positive symptoms are starred (\*). The tally sheets can be used here. Refer to instructions on page 12. Clustered experiences must be coded from 3 different boxes. Onset and recency age questions refer only to those questions that are starred and coded "yes".

## **J. Drug Abuse and Dependence**

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

### **Marijuana Questions**

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.

- Q22.a Time is defined as a discrete episode of use. It does not refer to quantity of marijuana.
- Q23 “Almost every day” means more days than not. If they never used regularly code 000 and Q23.a will remain blank.
- Q23.a Date is from time of onset.
- Q25 This question needs to be asked slowly, breaking it into subparts. If subject denies all subparts, code “no” in the stem. If subject endorses a subpart, code “yes” in the stem and then ask the corresponding problem in a-e, coding “no” for anything not endorsed in stem question.
- Q37.a.1-  
37.a.2 These questions are important for DSM-IV and DSM-III-R criteria for marijuana dependence. The questions reviewed for positive symptoms are starred (\*). Onset and recency age refer only to those questions that are starred and coded “yes”. The tally sheets are to be used here. Refer to instructions on page 12. The word “persistently” means continuing for several days.

### **Other Drugs Questions**

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 Q39. 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.

Q38.b There are only two boxes provided but write down the most accurate number. The computer will accept high numbers.

Q46-46.n 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.

Q53 This question needs to be asked slowly, breaking it into subparts. If subject denies all subparts, code “no” in the stem. If subject endorses a subpart, code “yes” in the stem and then ask the corresponding problem in a-e, coding “no” for anything not endorsed in stem question.

Q56.a-b These questions are important for DSM-IV and DSM-III-R criteria for drug dependence. The questions reviewed for positive symptoms are starred (\*). Onset and recency age refer only to those questions that are starred and coded “yes”. The tally sheets are to be used here. Refer to the instructions on page 12. The word “persistently” means continuing for several days.

Q57.e Record the type of treatment.

## **K. Psychosis**

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

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 whether specific psychotic symptoms have ever been present. Often, the presence or absence of psychosis will be eluded to in previous sections of the DIGS (e.g., overview, depression, mania, and/or substance abuse sections). When this occurs, the interviewer should use all previously ascertained information to code as positive those symptoms already confirmed to exist.

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 time frames established for the interview are: 1) “Ever” Present, and 2) with questions 61-69 (pg. 104-105) whether those endorsed symptoms are/were present in the “Current or Most Recently” experienced episode. A subject who does not give a history of, or describes psychotic symptoms during the initial screening questions will not be administered this portion of the instrument.

### **Questions**

Q1 All screening questions in Q1 (a-e) 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 auditory or visual, hallucinations, delusions, marked formal thought disorder, grossly bizarre behavior, catatonia motor behavior, or avolition/apathy that did not occur as part of a shared religious or subcultural belief system). Episodes or periods of psychosis will later be categorized as schizophrenia, schizoaffective disorder, delusional disorder, affective 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.

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.

Note for Q1.d & Q1.e: The intent of these questions is to distinguish symptoms of psychosis occurring in episodes other than episodes of affective psychosis.



- Q1.d This question attempts to determine whether the subject ever experienced (aside from times of depression and mania) symptoms which include unusual behavior (disorganized behavior); speech that was mixed up or did not make sense (formal thought disorder); or their body stuck in one position so that they could not move (catatonic motor behavior).
- Q1.e This question attempts to determine whether the subject ever experienced (aside from times of depression and mania) symptoms which include restrictions in the initiation of goal-directed activities (avolition/apathy); restrictions in the range and intensity of emotional expression (flat/inappropriate apathy); or in the fluency and production of thought and speech (alogia).
- Q1.f If there is no evidence, from any source, of any psychosis **lasting persistently throughout the day for one day or intermittently for a period of three days**, skip to the next section: Schizotypal Personality Features (Page 115) and SIS (St. Louis Site only) (Page M.1).

For any positive responses endorsed on the screening questions (1a-e), determine whether the symptom meets psychotic threshold requirements by using the 5-standard probes listed on the top of page 94, as needed. Establish duration and frequency for every positive response and obtain examples and note them in the space provided or the margins if necessary. The attainment of examples for each endorsed symptom will allow for future informed discussion if and when any discrepancies in threshold, duration etc., arise.

### **Establishing a Current or Past Episode of Psychosis**

If psychotic symptoms are endorsed or suspected based on responses to screening questions, try to determine if the subject is currently symptomatic (day of interview). If the subject denies symptoms during the interview, but you observe the subject experiencing symptoms, code “yes” to Q2.

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 s/he has had a return to his/her 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 subject’s 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). In summary, if the subject has shown significant signs of psychosis more or less continuously since onset (e.g., no return to premorbid functioning for 2 or more months), count it as one period of illness.

- \* **Prodromal phase:** a clear deterioration in functioning before the active phase of psychosis that is not due to a disturbance in mood or to a psychoactive substance use disorder and that involves the symptoms listed on pg. 106-107 of the DIGS.
- \* **Residual phase:** following the active phase of psychosis, a clear deterioration in functioning that is not due to a disturbance in mood or to a psychoactive substance use disorder and that involves the symptoms listed on pg. 106-107 of the DIGS.
- \* **Premorbid:** Functioning level achieved prior to the onset of illness

Q2 If the subject responds “yes” to whether s/he is currently experiencing active or residual psychotic symptoms (on day of interview), it is imperative that you do not skip to Q3 but continue with Q2a.

Q3 If the subject is not actively psychotic or within a residual period of symptoms, use this item to determine how old the subject was the last time that s/he was psychotic. The age at which the symptoms started for that episode is used. The **most recent episode** is defined as the last episode that included active psychosis with or without prodromal and residual 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.

Q4 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**. This determination directly affects whether an episode is deemed to be current or not as well as whether it’s course is “episodic” or “chronic and unremitting”. Some individuals with schizophrenia will have a remission of positive symptoms with antipsychotic medication, but still manifest some negative or residual symptoms. These individuals should be considered to be within an episode of psychosis. However, if a subject experiences a true remission and return to premorbid baseline functioning with complete remission from both positive (also known as “active”) AND negative (also known as “residual”) symptoms, then s/he should be considered out of episode.

Suggested Probes to Determine Symptom Existence

1. Ask question to determine if symptom ever occurred
2. If yes, ask the subject to specify an example of that symptom
3. If needed: ask the 5-standard probes listed on the top of page 94 (ask enough to be reasonably certain symptom is of psychotic proportions)

4. Record in margin, or on the “specify” line provided, both the frequency and duration of each symptom. If the interviewer is confused as to whether a positive response meets the threshold criteria, write all details relating to said symptom in the margin and consult your Project Coordinator and/or the P.I. for determination of final coding.

## **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; such as the idea that one’s personal thoughts are being broadcast by national television. Delusions are based on incorrect inference about external reality and are firmly sustained in spite of what almost everyone else believes and in spite of what constitutes incontrovertible and obvious proof to the contrary. Furthermore, the distinction between a delusion and a strongly held idea is sometimes difficult to make and depends on the degree of conviction with which the belief is held despite clear contradictory evidence. In addition, some religious or culturally supported beliefs may be hard to distinguish from non-bizarre delusions (e.g., the conviction of some highly religious people that they talk with, and receive instructions from God). For this reason, interviewers are asked to record multiple detailed examples of every psychotic symptom. Delusions are to be distinguished from illusions and hallucinations, which are perceptual experiences.

## **Questions**

- Q5 This item assesses persecutory delusions, (e.g., that the individual or his/her group is being attacked, harassed, cheated, persecuted, or conspired against). These beliefs are paranoid in nature, and the subject must feel that someone/people want to hurt, persecute, or plot against him/her for no apparent or sensible reason.

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?”

- Q6 This belief is arrived at without due cause and is based on incorrect inferences supported by small bits of “evidence” (e.g., disarrayed clothing or spots on the sheets) which are collected and used to justify the delusion). The subject usually confronts the spouse/lover/boyfriend and attempts to intervene in the imagined infidelity (e.g., secretly following the spouse/lover/boyfriend, investigating the imagined lover, attacking the spouse).

Jealousy Delusions (additional probe): “What kind of evidence do you have?”

- Q7 This item assesses delusions of guilt and/or sin. Stress “crime” or “punished.” The intent is to elicit delusional thinking, not just reasonable guilt about having actually done something hurtful.

- Q8 This item assesses grandiose delusions, the content of which involves exaggerated power, knowledge, or importance. Grandiose delusions are common in manic patients

(e.g. having a special relationship with God or to some public figure from the political, religious, or entertainment world).

Q9 Do not score beliefs held as part of an organized religion. However, some religious or culturally supported beliefs may be hard to distinguish from non-bizarre delusions (e.g., the conviction of some highly religious people that they talk with, and receive instructions from God). For this reason, interviewers are asked to record multiple detailed examples of this symptom.

Religious Delusions (additional probe): “ Have other members of your religion had similar experiences or beliefs”?

Q10 This item assesses somatic delusions, the content of which involves a change or disturbance in body functioning. The purpose of this screen is to identify individuals who truly present with an unexplainable phenomena and not residual damage from substance use/medical illness/aging/physical trauma.

Q11 This item assesses Erotomantic delusions, the content of which often involves idealized romantic love and spiritual union rather than sexual attraction. The person about whom this conviction is usually held is usually of higher status (e.g., famous person or a superior at work) but can be a complete stranger. Efforts to contact the object of the delusion (through telephone calls, letters, gifts, visits) are common, although the person keeps the delusion secret.

Q12 This type of delusion is common; the person believes that certain gestures, comments, passages in books, newspapers, TV programs, song lyrics or other environmental cues are specifically directed at him/her. In addition, the subject may feel that s/he has been singled out for special attention by others who are talking, laughing, or watching him/her. However, the distinction between a delusion and a strongly held idea is sometimes difficult to make and depends on the degree of conviction with which the belief is held despite clear contradictory evidence. Do not include simple self-consciousness or the feeling that the subject attracts comment even if critical (PSE). Delusions of reference 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).

Q13 This item assesses delusions of being controlled, (e.g., feelings, impulses, thoughts or actions are experienced as being under the control of some external force). This question seeks to identify subjects who believe that someone or something outside of themselves is controlling their thoughts or actions, against their will. Do not include feeling that life is planned and directed by fate, or under God’s control. In addition, this question does not include people who feel dominated or directed by others (such as parent or spouse).

- Q14 This item checks for thought broadcasting; a delusion that one's thoughts are audible to others. Specifically, the subject feels his/her thoughts could actually be heard, not just that others knew what s/he was thinking.
- Q15-16 These experiences are independent of the subject's will. These questions seek to identify subjects who believe that someone or something outside of themselves is controlling their thoughts against their will.
- Q17 The interviewer is to code the length of the LONGEST continuous period in which the active delusion(s) lasted. If active psychosis occurs intermittently, code the length of the entire duration and write a marginal note explaining the intermittent occurrence (e.g., subject felt paranoid for approx. three days each week for two months).
- Q18 This question assesses whether there was a time when the subject had disorientation or confusion together with a delusion? Was there a change in the level of consciousness that may or may not be due to physical factors, (e.g., drugs, physical illness). For this question, a determination needs to be made as to whether or not the change in sensorium was **entirely** due to a drug or other medical condition in order to rate a "2" as opposed to a "3". The goal of this item is to determine if there has ever been a period of active psychosis without clouded sensorium. If there has ever been a period of psychosis without clouded sensorium, code "0" (none).
- Q19 Fragmentary Delusions are counted as present when they are **not** the elaboration of a single theme or are **not** organized into a consistent theme.

**Examples of Fragmentary themes:** A subject thinks his room is bugged, believes people doubt his sexual potency, and suspects he may be the son of Paul McCartney. (CASH); a women patient felt that the nurses approaching her had homosexual intentions, that the patients were really nurses and doctors in disguise planted there to assist her, and the people could read her mind by looking at her hands (RDC).

**Example of a non-fragmentary delusion** that is merely an elaboration of a single theme: "A man believed that some unknown force had enlisted his family, friends, and associates in a scheme to kill him, and that they poisoned his food and tapped his phone" (RDC)

- Q20 If the widespread aspect of the subject's delusion(s) has not been made evident by previous answers obtained during the interview, then turn into a question and ask the subject to respond. (e.g. "When you believed these things, [list the ones s/he coded as present] did they intrude into most aspects of your life and/or preoccupied you most of the time?
- Q21 Bizarre or Fantastic Quality - "Extent to which the content of 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) Do not include as bizarre, delusions which are the elaboration of **common** impausible ideas or subcultural beliefs, such as

communicating with God, the Devil, ghosts or ancestors, or being under the influence of curses, spells, voodoo, or hypnosis. Instead, bizarre delusions involve a phenomenon that the subject's subculture would regard as **totally implausible**. (RDC). In addition, these delusions are not understandable, and are not derived from ordinary life experiences.

**Examples of Bizarre delusions:** 1) A man believed that when his adenoids had been removed as a child, a box had been inserted into his head and that wires had been placed in his head so that the voice he heard was that of Governor Rockefeller, 2) A woman believes that an underground radio station was broadcasting through noise that emanated from her washing machine (RDC), 3) the subject thinks there are Martians walking in the kitchen and, 4) a stranger has removed his/her organs and replaced them with someone else's organs without leaving a scar.

Nonbizarre delusions involve situations that can conceivably occur in real life.

**Examples of Non-bizarre delusion:** 1) A man believed that his appearance had changed and that people therefore no longer respected him, and 2) the belief that one is being followed, being poisoned, being infected, being loved at a distance, or being deceived by one's spouse or lover.

NOTE: To rate a "2" (definitely bizarre) the delusion needs to be **totally implausible**. If the answer to this is "yes" it qualifies a subject for the "A criterion for Schizophrenia" in some diagnostic systems. If a "2" is coded, then Q53b on pg. 102 (as well as Q53a) will also be coded "yes".

## **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) Examples include: feeling bugs crawling all over one's skin when they are not; seeing Martians and vampires seated at the dining table; hearing voices when no else is in the area.

## **Questions**

- Q22 Auditory hallucinations are the most common hallucination with regards to Schizophrenia and are usually experienced as voices, whether familiar or unfamiliar, that are perceived as distinct from the person's own thoughts. The content may be variable, although pejorative (critical or derogatory) or threatening voices (Q22a) are especially common.
- Q23 Checks to see whether there was a voice keeping a running commentary on the subject's behavior or thoughts as they occurred.
- Q24 Checks to see whether two or more voices were conversing with each other. If subject heard noises only and not voices, do not code as present.

- Q26 This item queries tactile hallucinations (e.g., electricity, bugs) and somatic hallucinations which should be distinguished from somatic delusions which represent a BELIEF that some change in one's body or the way it was working, has occurred. With somatic hallucinations, a perceptual experience is involved . Obtain an example before coding.
- Q27 This item asks about olfactory hallucinations, "which are infrequent and usually consist of unpleasant smells arising from the subject's own body" (GOODWIN & GUZE).
- Q28 Distinguish from "illusions" for which there is some external stimulus to account for the perception. An example of an illusion would be, for example: seeing a lamppost or gatepost out of the corner of your eye and thinking that it a man standing by the side of the road. In addition, do not score this question as positive if the visual experience(s) occurred only when the subject was falling asleep (hypnagogic) or waking up (hypnopomic). These hallucinations must occur when the subject is **fully awake**. Stress the term "completely awake".
- Q29 This hallucination represents a taste that can not be accounted for by what was recently eaten or drank by the subject. Remember, there is no external stimulus (or sensory modality) to account for this taste. For example, a subject who only experiences a strange taste in their mouth as a side effect of their psychotropic medication use would not be counted as positive for this symptom.
- Q30 Duration of hallucinations includes the LONGEST period of time when the subject had continuous or intermittent hallucinations. If active psychosis occurs intermittently, code the length of the entire duration and write a marginal note explaining the intermittent occurrence (e.g., subject felt paranoid for approx. three days each week for two months). If the subject is unsure, estimate the duration.
- Q31 Was there a time the subject had disorientation or confusion together with a delusion? Was there a change in the level of consciousness that may or may not be due to physical factors, (e.g., drugs, physical illness). For this question, a determination needs to be made as to whether or not the change in sensorium was **entirely** due to a drug or other medical condition in order to rate a 2 as opposed to a 3. **The goal of this item is to determine if there has ever been a period of psychosis without clouded sensorium.** If there has ever been a period of active psychosis without clouded sensorium code "0" (none).

### **Disorganized Behavior**

- Q32-33 Bizarre Behavior - Unusual behavior is behavior that is not typical of the culture and would probably call attention to the individual. Two types of behavior are coded: unusual and disorganized/inappropriate.

NOTE: Clearly inappropriate sexual behavior in subjects with schizophrenia-like disorders often manifests itself in behavior such as public masturbation. This should be differentiated from “hypersexuality” that often accompanies subjects who experience manic episodes.

### **Positive Formal Thought Disorder**

- Q35 Disorganized 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.
- Q36 Odd Speech with Content That Is Difficult to Follow - Speech that is excessively vague or extremely over-elaborated. 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:

- Q38 Rigidity - Maintains a rigid posture against efforts to be moved.
- Q39 Stupor - Marked decrease in reactivity to environment and reduction of spontaneous movements and activity.
- Q40 Excitement - Apparently purposeless and stereotyped excited motor activity not influenced by external stimuli.
- Q41 Motoric Immobility (Catalepsy) - Maintenance of limbs and/or body in externally imposed positions. Includes waxy flexibility.
- Q42 Extreme Negativism - Mutism (i.e., refusal to speak) and/or uncontrollable resistance to instructions. In other words, the subject has an apparently motiveless resistance to all instructions.
- Q43 Peculiarities of Voluntary Movement - Stereotypies and other unusual repetitive movements, not tardive dyskinesia\* (which is involuntary). With this symptom, the subject experiences a voluntary maintenance of unusual or bizarre postures.
- \*Tardive dyskinesia: involuntary movements (lasting at least a few weeks) of the tongue, jaw, or extremities developing in association with the use of neuroleptic medication for at least a few months.
- Q44 Echolalia - Repetition of verbal communications.  
Echopraxia - Repetition of movements.



### **Avolition/Apathy**

- Q46 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.

### **Alogia**

- Q48 Poverty of content of speech as well as increased latency of response. The patient's replies to questions are restricted in amount, tend to be brief, concrete, and unelaborated.

### **Affect**

- Q50 Flat Affect - Virtually no signs of affective expression; the voice is usually monotonous and the face immobile. The person may complain that s/he no longer responds with normal emotional intensity or, in extreme cases, no longer has feelings. 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.

### **Schizophrenia Criterion A**

#### Characteristic symptoms (Criterion A):

(for each subpart, refer back to the corresponding question(s) listed in order to determine coding)

- Q53.a-f Characteristic symptoms of Schizophrenia Criteria A may be conceptualized as falling into two categories – positive and negative. **Positive symptoms**, as reflected in these questions, appear to reflect an excess or distortion of normal functions and include distortions or exaggerations of inferential thinking (delusions), perception (hallucinations), language and communication (disorganized speech), and behavioral monitoring (grossly disorganized or catatonic behavior).
- Q53.g **Negative symptoms**, as reflected in this question, appear to reflect a decrease or loss of normal functions which include restrictions in the range and intensity of emotional expression (affective flattening), in the fluency and productivity of thought and speech (alogia) and in the initiation of goal-directed behavior (avolition).
- Q54 Criteria A for Schizophrenia requires that at least two of the items listed from 53.a-g are present concurrently for at least 1 month. In those situations in which the active-phase symptoms remit within a month in response to treatment, Criteria A can still be

considered to have been met **IF** the interviewer judges that the symptoms would have persisted for a month in absence of effective treatment.

Q54.a Again, in those situations in which the active-phase symptoms remit within a month in response to treatment, Criteria A can still be considered to have been met **IF** the interviewer judges that the symptoms would have persisted for a month in absence of effective treatment.

Q55 This is a critical decision point for distinguishing schizoaffective disorder from mood disorders with psychotic features.

Q55.a If psychotic symptoms persist at least a week in the absence of mood symptoms, continue with the Psychosis section.

Q55.b If psychotic symptoms only occur during mood disorder, check for mood-incongruent psychotic symptoms that occurred during episodes of **depression**. If present, code “yes” and continue through the Psychosis section. If mood incongruent psychotic symptoms are **only** present during **mania**, code “no” and follow SKIP pattern.

NOTE: Some PI’s may want the entire psychosis section administered regardless of the subject’s answer to Q 55-55.b. Consult your PI for determination of this issue at your site.

### **Onset of First Symptoms Episode**

Q56-58 Gather information regarding the first episode of **active** psychosis. Determine whether there was ever a return to premorbid functioning after symptoms started. The return to premorbid functioning distinguishes episodic from chronic psychotic illnesses.

Q59 Try to determine how many episodes of psychosis the subject has experienced during his/her lifetime. When doing this, remember that subjects are considered out of episode when they have returned to their usual selves (premorbid level of functioning) for at least 2 months with no active or residual behaviors.

Q60.a-b If you suspect autism or another pervasive developmental disorder 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.

- Q61 Note whether an overlap between psychosis and mood disorders exists during the current/most recent episode of psychosis.
- Q62-65 Determine if the current/most recent episode of psychosis **follows** alcohol use, drug use, medical problems and/or the use of prescription medications. This is critical for the diagnostic process.
- Q66 This question describes a potential diagnostic feature of Posttraumatic Stress Disorder and the development of psychosis within the disorder. This is critical for the diagnostic process.
- Q67.a Impairment of functioning is measured and rated.
- PLEASE NOTE** the specifications listed in the Interviewer note when determining the coding for this question.
- Q67.b “Much of the time” refers to at least 30% of the time. The dysfunction persists for a substantial period during the course of the disorder and does not appear to be a direct result of any single feature. A pervasive pattern of difficulties in multiple domains of functioning are evidenced.
- Q68 This question describes a diagnostic feature of Brief Reactive Psychosis. This is critical for the diagnostic process.
- Q69 This question describes a diagnostic feature of Postpartum Depression. This is critical for the diagnostic process.

### **Prodromal and Residual Symptoms**

A **prodromal phase** represents a clear deterioration in functioning before the active phase of psychosis that is not due to a disturbance in mood or to a psychoactive substance use disorder. A **residual phase** is one that follows the active phase of psychosis and is a clear deterioration in functioning that is not due to a disturbance in mood or to a psychoactive substance use disorder.

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.

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.

**IMPORTANT:** 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 experienced. Otherwise treat as a single episode and ask about the year prior to the onset of psychosis.

Q70-70.p 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.

### **Schizoaffective Disorder**

Q71-90 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 (e.g., 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 (e.g., 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.

Q72 Refer back to the mania section to determine if delusions/hallucinations were coded as present during either of the manic episodes described. If yes, then code “yes” and follow skip-pattern. If “no”, then proceed to and complete questions Q73-74. Based on the number of definite symptoms listed in Q74, follow appropriate skip-pattern.

Q76 Refer back to questions 53 and 54. If the subject has never had two concurrent psychotic symptoms of sufficient intensity (or the particular symptoms—bizarre delusions, two voices talking, etc. that satisfy criterion A for schizophrenia) then skip to question 77.

Q76.a In order to establish a diagnosis of schizoaffective disorder, symptoms of both schizophrenia and affective disorder must have overlapped at some point. The subject must have had multiple, or certain specific psychotic symptoms during and beyond an episode of affective disorder. Previously, the subject was asked about the concurrence and persistence of symptoms (question 53 and 54). If it is clear that the time frame of the subject’s answers to 53 and 54 occurred (or did not occur) during a manic episode, answer yes (or no) and proceed to question 77. If the subject met criterion A for schizophrenia but it is unknown or unclear whether this occurred during an episode of mania, ask question 76b.

- Q76.b These are the identical questions to questions 53a-g. It may be possible to respond to these questions on the basis of the information already given, or the interviewer may want to review the answers to specific questions about psychotic symptoms from the first part of the section to ensure that symptoms were concurrent with each other and with a manic episode.
- Q77 Refer back to all positively coded delusions/hallucinations and determine whether any mood-incongruent symptoms occurred during episodes of **mania**. 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.” Mood-incongruent delusions include 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.
- Q78-79 Psychosis can occur before or after the presence of an affective syndrome. These questions assess a period of **non-overlap**.
- Q80 Score “yes” if <30% of the time the subject’s manic syndrome overlapped with psychosis.
- Brief = <30% (Use as a general guideline and make marginal notes.) This judgment should be based primarily on information gathered over the entire course of the interview (particularly the timeline). You can use this question to help clarify the overlap. “Since you first began experiencing (hallucinations/delusions) what percent of the time were you depressed/manic? Or “What percent of the time was your mood normal?”
- Q82 Refer back to the depression section to determine if delusions/hallucinations were coded as present during either of the depressive episodes described. If yes, then code “yes” and follow the skip-pattern. If “no” then proceed to and complete Q83-84a. Based on the number of definite symptoms listed in Q84, follow appropriate skip-pattern.
- Q86 As in questions 76 and 76a, refer back to questions 53 and 54. If the subject has never had two concurrent psychotic symptoms of sufficient intensity (or the particular symptoms—bizarre delusions, two voices talking, etc. that satisfy criterion A for schizophrenia) then skip to question 87.
- Q86.a In order to establish a diagnosis of schizoaffective disorder, symptoms of both schizophrenia and affective disorder must have overlapped at some point. The subject must have had multiple, or certain specific psychotic symptoms during and beyond an episode of affective disorder. Previously, the subject was asked about the concurrence and persistence of symptoms (questions 53 and 54). If it is clear that the time frame of the subject’s answers to 53 and 54 occurred or did not occur during a depressive

episode, answer “yes” or “no” and proceed to question 87. If the subject met criterion A for schizophrenia but it is unknown or unclear whether this occurred during an episode of depression, ask questions 86b.

- Q86.b These are the identical questions to questions 53a-g. It may be possible to respond to these questions on the basis of the information already given, or the interviewer may want to review the answers to specific questions about psychotic symptoms from the first part of the section to ensure that symptoms were concurrent with each other and with a depressive episode.
- Q87 Refer back to all positively coded delusions/hallucinations and determine whether any mood-incongruent symptoms occurred during episodes of **depression**. According to the DSMIII-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.
- Q88-89 Psychosis can occur before or after the presence of an affective syndrome. These questions assess a period of **non-overlap**.
- Q90 Score “yes” if <30% of the time the subject’s depressive syndrome overlapped with psychosis. Brief = <30% (Use as a general guideline and make marginal notes.) This judgment should be based primarily on information gathered over the entire course of the interview (particularly the timeline). You can use this question to help clarify the overlap, “Since you first began experiencing (hallucinations/delusions) what percent of the time were you depressed/ manic?”. Or “What percent of the time was your mood normal?”

### **Patterns of Symptoms and Severity**

- Q92-94 “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)

EXAMPLE: When a subject experiences only one episode of active psychotic symptoms, preceded and followed by asymptomatic functioning, Q92 would be rated a “1” (continuously positive). In addition, this subject would also rate a “1” (episodic shift) on Q94.

## **L. Schizotypal Personality Features**

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.

## **M. Modified Structured Interview for Schizotypy (SIS) (St. Louis site only)**

### **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

Modifications to the Interviewer Instructions that appear in the version 3.0 manual were made by Judith Colon, B.S., and Caroline E. Drain, M.H.S, of Washington University School of Medicine

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. 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 10, 32, 40, 49a, 50a, 51a, 53, 54d, 55c, 61, 64-66, 67a, 81b); 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; “field-coded items”, “observed during interview ratings”, and “global assessment 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 (the Modified SIS ratings found at the end of the DIGS, pages W.1 – W.6). 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 W. -1); #12 - Rate of Subject's Speech (page W. -3); and #13 - Amount of Subject's Speech (page W.3). 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 Slight:
  - 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 (Q25-26).
  - b. Item added (Q27) to meet DSM-IV criterion 2 (excessive social anxiety) for schizotypal personality.
6. Ideas of Reference - Being Watched:
  - a. Item added (Q35) to meet DSM-IV criterion 2 for schizotypal personality plus a global rating (Q36).
7. Ideas of Reference - Seeing Meanings: Deleted
8. Ideas of Reference - Remarks:
  - a. Possible probe added for “dropping hints” item (Q41)
9. Suspiciousness:
  - a. Original SIS items
10. Pathological Jealousy:
  - a. Two adapted SID-P items (Q54-55) and a global rating (Q56) 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 (Q78 and Q78a)
  - b. Doubled up “thought” and “emotion” questions (Q78-81, Q81a, b) for a net reduction of 5 items.
14. Sexual Anhedonia:
  - a. Added sexual experience (Q83) and desire (Q83a, Q84) items, if needed, to meet DSM-III-R criterion A.4 for schizoid personality disorder.
  - b. Added global rating for sexual anhedonia. (Q85)

STRUCTURED INTERVIEW FOR SCHIZOTYPY (SIS)

**Version 1.5 - Interviewer Instructions**

Kenneth S. Kendler, M.D.

August 1989

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- A. Childhood (we do not assess this section in our interview so skip subsequent instructions)
- B. Teenage Years (we do not assess this section in our interview so skip subsequent instructions)
- C. Social Isolation/Introversion
- D. Interpersonal Sensitivity
- E. Social Anxiety
- F. Ideas of Reference Part I - Being Watched
- G. Ideas of Reference - Seeing Meanings (we do not assess this section in our interview)
- H. Ideas of Reference Part II - Remarks
- I. Suspiciousness
- J. Restricted Emotion
- K. Magical Thinking
- L. Illusions
- M. Psychotic-like Phenomena
- N. Derealization/Depersonalization (we do not assess this section in our interview)
- O. Antisocial Traits/Irritability-Anger (we do not assess this section in our interview)
- P. Suicidal Threats (we do not assess this section in our interview)
- Q. Affective Instability (we do not assess this section in our interview)
- R. Emptiness (we do assess this section in our interview)
- S. Impulsive/Non-conformity (we do not assess this section in our interview)
- T. Sexual Anhedonia (no section heading assigned)
- W. Observed During Interview

## 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 clear-cut 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. However, if, in your judgment the symptom is clearly not psychological in origin, code it as absent. For example, if in response to Q70, the subject 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 6 or 5 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 1 or 0, 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 the 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 clearly circled “X”. 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 FIELDCODE (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 6 MARKED to 0 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 0 if, in your judgment, positive responses were clinically insignificant. In general, however, a 1 is probably more appropriate for such individuals, saving the 0 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 0 for those who either have virtually no evidence of symptoms in the area assessed or have just a few clinically insignificant responses; (b) a 1 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 2 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 3 means “symptoms clearly present--no doubt about that--and are of some clinical significance;” (e) a 4 means “symptoms definitely present, have some clinical impact, but not severe;” (f) a 5 means “symptoms quite pronounced but not at the extreme of severity;” (g) a 6 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 W, 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 the DIGS, this is represented with respondent cards) - 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 “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, Q.1- Q. 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.

- Q.9 Here you assess overall degree of social isolation. Unlike Q.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. If the last 3 years have not been typical for the subject, we ask you to rate the difference (Q10) and then provide a global ratings 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 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.
- Q.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.
- Q.14 Before this item, we make our final "temporal" shift, with which we stay for the rest of the interview (e.g. please answer as to the kind of person you are in general). 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.
- D. Interpersonal Sensitivity

- Q18 People will not always understand “touchy.” We would suggest trying “easily upset,” “I can be testy” or whatever else comes to mind.
- Q19 Only include what the subject says about himself here. Save any observations you may make of subject for section W.

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.

- Q.26 You will sometimes have people who respond “sometimes (2)” to items 25.a-e. In general, the global score for such subjects should be in the 1-2 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 Q.32 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.

- Q31 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?” (32)

If, after several probings, the subject cannot recall example, just put OK for Q.31, NA for Q.32 and go on. Try to avoid this happening.

- Q32 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.
- Q33 “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  
 [These items have been removed from the Modified SIS, v.1.5]
- 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 Q38. You skip to Q41 only if the subject states that he has not had the feeling of being talked about and never has felt laughed at.
- Q39 & Q40 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.”
- Q43 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 respondents 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).
- Q.26 &35 In order to asses items 35a-c, item 35 must have a code of at least a 4 and item 26, the global rating of Social Anxiety, must have been coded at least a 2. Answers to these 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.”

Q.35a “Center of attention” can mean in either a grandiose or “persecutory” way.

I. Suspiciousness

Q49 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 0. Score as a 6 or 4 only responses that clearly are pathological - indicating inappropriate suspiciousness.

Q52 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.

Q53 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 Q57 items, “often” means the absence of restricted emotion.

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.

Q59 A number of these items have been adapted from the Magical Thinking scale of Chapman et al.

Q61 This may be obvious from context, or some further questions may be needed here to clarify the deviance of the magical beliefs.

Q63 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 Q.67.

- Q64 Note this checkpoint. If the subject did not admit to superstitions in Q.62 or to superstitious practices to keep evil away in Q.63, then go to item 68.
- Q65 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.
- Q66 & Q67 These items refer to both “superstitious beliefs” (items 62-62a) and “things to keep evil away” (items 63-63a).
- Q67a 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.

- Q73 A particularly common reason for a positive response to this item has been a recently departed relative or close friend.
- Q74 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

- Q82 Further probes may be needed here to obtain enough information to rate this item.

Sexual Anhedonia

- Q.86 Don't forget to record the time the SIS is finished.



## Section W (Modified SIS Ratings)

### W. Observed During Interview

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

- W.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.
- W.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 W.6 will then be used to score the inappropriate affect.
- W.6 This item scores the active process of inappropriate affect - not the absence of appropriate affect, which is measured in W.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 W.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.
- W.7 As in W.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 W.10-W.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 disorders.
- W.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.
- W.14 Poverty of content means that speech is full of “filler” words (“uhms”, “ahs”,

“wells”, etc.) and does not communicate much meaning.

- W.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.

**Always Review Your Interview Prior to Turning it In!**

## **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.

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. Significant use is generally accepted to be two or three symptoms in any one of these sections.

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

Note in margins when overlap does or does not occur.

Q1.a-b These questions are intended to get at causative relationships between mood disorder, psychosis, and substance abuse. Did these types of symptoms clearly begin independently of each other (e.g. adolescent marijuana use at age 16 for 2 months and subsequent psychotic episode at age 21 with no psychopathology in the meantime)? Make marginal notes about co-occurrence or lack of co-occurrence.

## **O. Suicidal Behavior / Violent Behavior/Self-Harm without Suicidal Intent**

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, first he is asked the age of his earliest attempt. Next 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 in a period of major depression, mania, alcohol abuse, drug abuse, or activity psychotic.

- Q1.a This section was designed to score the two most serious suicide attempts experienced by a subject. However, since the codification of the second most serious attempt (Q13, pg. 122) is **site-optional**, please consult your PI to determine if it will be administered to your subject population.

### **Violent Behavior/Self-Harm without Suicidal Intent**

Both sections, which begin on pg.124 are **site-optional**. Please consult your PI to determine if they will be administered to your subject population.

## P. Anxiety Disorders

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

### **Obsessive Compulsive Disorders**

The essential feature of this disorder is recurrent obsessions or compulsions or both, sufficiently severe to cause 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, senseless, and unpleasant. Common obsessions are; 1) repeated thoughts about contamination ("becoming contaminated by shaking hands), 2) repeated doubts (e.g., wondering whether one has performed some act such as having hurt someone in a traffic accident or having left a door unlocked), 3) a need to have things in a particular order (e.g., intense distress when objects are disordered or asymmetrical), 4) aggressive or horrific impulses (e.g., to hurt one's child or shout an obscenity in church), and 5) sexual imagery (e.g., a recurrent pornographic imagery). The intrusive and inappropriate quality of the obsession has been referred to as "ego-dystonic". This refers to the subject's sense that the content of the obsession is alien, not within his/her control, and not the kind of thought that he/she would expect to have. The subject attempts to ignore or suppress such thoughts or impulses or to neutralize them with some other thought or an action. However, the subject recognizes the obsessions are the product of his/her own mind and do not originate from someone or something else (as seen in the delusion of thought insertion"). **Compulsions** are repetitive, purposeful, and intentional behaviors that are performed in response to an obsession or are thought to prevent an obsessional thought. They are performed according to certain rules, or in a stereotyped fashion. The behavior is designed to neutralize discomfort or to prevent it or prevent some dreaded event or situation.

### Questions

- Q1 Obsessions are often most easily recognized by a naïve subject simply by providing an example. There is a certain "quality" subjects will recognize. Therefore, even after an initial negative response, continue probing by providing the examples listed with the "**Probe**" on Page 126. Repetitive thoughts of desiring alcohol, drugs or sex are not obsessions; neither are thoughts of being too fat. Obsessions are not pleasant and do not provide satisfaction as alcohol, drugs, or sex. However the fear of involvement with alcohol, drugs, sex, or harming someone may be an obsession.
- Q1.a If the subject responds positively, try to have him/her provide at least 2 examples. Some repetitive thoughts may not be obsessions, so you need to have examples to help the Data Coordinators and Best Estimate Reviewers to make a diagnostic decision.
- Q1.b Be certain to write down examples for use by Data Coordinators and Best Estimate Reviewers in making diagnostic decisions.

- Q1.c Code “**NO**” if the repetitive thoughts are simply repetitive realistic worries (ruminations) about actual life circumstances rather than obsessions which are thoughts which do not have a connection to actual life situations. The thoughts, impulses, or images are not simply excessive worries about real-life problems (e.g., concerns about current ongoing difficulties in life, such as financial, work, or school problems) and are unlikely to be related to a real-life problem. It is helpful to record their answer to the side of the question so the accuracy of the coding is evident.
- Q1.d Code “yes” if the subjects expresses that s/he attempts to ignore, suppress, or “get rid of” the thought(s). For example, an individual plagued by doubts about having turned off the stove attempts to neutralize these thoughts by repeatedly checking to ensure that it has been turned off. It is helpful to record their answer to the side of the question so the accuracy of the coding is evident.
- Q1.e In order for this question to be coded “yes” the subject must recognize that the obsessions are a product of his/her own mind and are **not** imposed from without as with the psychotic delusion of “thought insertion”.
- It is helpful to record their answer to the side of the question so the accuracy of the coding is evident.
- Q1.f Remember typical depressive thoughts of guilt or excessive responsibility found in major depression are not obsessions nor are repetitive grandiose ones found in someone who is manic. It is helpful to record their answer to the side of the question so the accuracy of the coding is evident.
- Q2 Even after an initial negative response, continue probing by providing the examples listed with the “**Probe**” on Page 126.
- Q2.a Again, be generous with examples and write them on the lines provided for use by Data Coordinators and Best Estimate Reviewers.
- Q2.b Be certain to write down examples of what the subject felt would happen if the compulsive behavior(s) was not performed.
- Q2.c By definition, compulsions are either clearly excessive or not connected in a realistic way with what they are designed to eliminate. Reducing or eliminating anxiety by a particular behavior is consistent with an attempt to “neutralize or prevent some thing unwanted”. However, if this behavior(s) or mental act either is not connected in a realistic way with what is (they) are designed to neutralize or prevent (or are clearly excessive), code “yes”. Examples include: subjects washing hands until skin is raw; subjects being distressed by unwanted blasphemous thoughts may find relief in counting to 10 backwards and forwards 100 times for each thought.
- It is helpful to record their answer to the side of the question so the accuracy of the coding is evident.

Q2.d Code “yes” **if** the content of the obsessions or compulsions **are not** related to another Axis I illness that is present (e.g., preoccupation of food in the presence of an Eating Disorder; preoccupation with drugs in the presence of a Substance Use Disorder; presence of guilt ruminations in the presence of a Major Depressive Disorder).

It is helpful to record their answer to the side of the question so the accuracy of the coding is evident.

Q6 “Medication” refers specifically to treatment for obsessions or compulsions.

Q7 Record what effect the obsessions or compulsions had on subject’s life (if any). A subject may state that the symptomatology doesn’t change his/her life but may be aware of changes or accommodations that others must make such as waiting for the subject while s/he performs their ritualistic behavior or permitting their embarrassing behavior to occur while out in public etc.

Q10 This question attempts to determine if the subject, “ ... ever experienced an obsession/compulsion at some time OTHER than within two months of having depression/psychosis.” Use onset and recency ages gathered in depression and psychosis sections as well as the subject’s timeline information to help him/her answer this question.

## **Panic Disorder**

### **Panic Attacks**

Panic attacks consists of discrete periods consisting of a sudden onset of intense anxiety or discomfort accompanied by physical symptoms such as palpitations, shortness of breath, perspiration etc. lasting minutes to hours. They begin with the sudden onset of intense apprehension, fear, or terror; often there is a feeling of impending doom or fear that one is about to do some unnamed embarrassing act involuntarily. 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) and are even found during some major depressions. Therefore, it is important to distinguish between a “panic attack” and “panic disorder.” In determining the differential diagnostic significance of a panic attack, it is important to consider the context in which panic attacks occur. Was the panic attack unexpected and not associated with a situational trigger? Did the panic attack immediately occur on exposure to a situational trigger or in anticipation of being exposed to it? The following comments should help you with the distinctions.

### **Panic Disorder with or Without Agoraphobia**

The essential feature of panic disorders are recurrent panic attacks **which are not better explained** by another mental disorder such as social phobia, specific phobia, obsessive compulsive disorder, posttraumatic stress disorder, or separation anxiety disorder. Following at least one panic attack, there must be persistent concern about a future attack, worrying about

what might happen in an attack or because of an attack, or significant behavior change related to the attacks. Agoraphobia is the fear of being in places or situations from which escape might be difficult or embarrassing or in which assistance might not be available should intense anxiety occur. Panic disorder with agoraphobia is simply agoraphobia with recurrent unexpected anxiety which meets the panic attack criteria and in which the subject, for at least 1 month, has worry about another attack, concern about the consequences of an attack or a behavioral change. Panic disorder without agoraphobia is simply panic disorder in the absence of agoraphobia. The critical differences between panic disorder and other entities 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 with panic disorder having sudden symptom onset and relative rapidity with which symptoms disappear. In contrast, anxious periods with generalized anxiety disorder have a slow gradual build up to full symptom intensity but at its peak may have all the symptoms of someone with a panic attack. Typically subjects with panic disorder also develop varying degrees of nervousness, anxiety or apprehension which are focused on worries about the attacks or the consequences of another attack. Patients with generalized anxiety disorder must have symptoms every day for six months and cannot have their worries or anxiety focused entirely on the symptoms of an Axis I disorder.

### **Panic Disorder versus Social Phobias**

In social phobia, a social gathering or a situation requiring a performance by the subject leads to anxiety that may include all the symptoms of an actual panic attack. Typically, the subject is exposed to unfamiliar people or to possible scrutiny by others and fears he/she will respond with obvious anxiety or behavior which is humiliating or embarrassing. In panic disorder, the panic attacks are initially not triggered by situations in which the subject is the focus of others' attention (as in social phobia). The unexpected aspect of the initial panic attacks is an essential feature of the disorder, although later in the course of the disturbance certain situations, may become associated with having a panic attack as in panic disorder with agoraphobia. Examples of such situations are driving a car in circumstances in which getting off the road is difficult, being in a crowded place, or standing in a check out line with a shopping cart. In such a situation, the subject fears having a panic attack, but is uncertain if it will occur and when it may occur.

### **Panic Disorder versus Specific (Simple) Phobias**

In a specific phobia, previously called a simple phobia, an individual experiences marked and persistent fear that is excessive or unreasonable in response to the presence or anticipation of a very specific object or situation. Examples of such situations are flying, heights, specific animals including insects, intramuscular injections, and seeing blood. The feared situation/object almost invariably provokes an immediate anxiety response so the situation is avoided or is endured with intense anxiety or distress. The features which distinguish it from panic disorder with agoraphobia are the clear narrow specificity of the anxiety provoking stimulus and the lack of anxiety or panic attacks in the absence of the feared object or situation. The differentiation of specific phobia from social phobia is based on the differing focus of anxiety. In social phobia,



the focus is on the attention, disapproval etc of other people; in specific phobia, it is based on the production of anxiety from the stimulus itself rather than having the intermediate step of evaluation by others.

### **Questions**

- Q12 On the lines provided, write examples that describe situations/spells in which the physical symptoms listed in Q11 were/are experienced.
- Q12.a “Always predictable” refers to invariably occurring under the same set of circumstances such as time, place, physical characteristics of the surroundings (e.g. enclosed spaces, or social circumstance). It is helpful to record their answer to the side of the question so the accuracy of the coding is evident.
- Q12.b Code “yes” if the attacks were **NOT** exclusively associated with physical exertion or life-threatening situations. It is helpful to record their answer to the side of the question so the accuracy of the coding is evident.
- Q15 The phrase “...occurred together?” means occurred simultaneously during one attack of anxiety.
- Q18.c Be certain to write down examples of how the subject’s behavior was changed by the panic attack(s). These examples may be used by the Data Coordinators and Best Estimate Reviewers.
- Q20 This questions refers to medication specifically prescribed for panic attacks.
- Q27 This question attempts to determine if the subject, “ ... ever had a panic attack at any time in which you were **not** in a depression or in a mania.” Use whatever descriptive phrases necessary to convey the concept of a major depression or mania.

### **Phobia Disorder**

**Agoraphobia** is defined in DSM-IV as: "...anxiety about being in places or situations from which escape might be difficult (or embarrassing) or in which help may not be available in the event of having a Panic Attack or panic-like symptoms. The anxiety typically leads to a pervasive avoidance of a variety of situations that may include being alone outside the house; being in a crowd or standing in a line; being on a bridge; and traveling in a bus, train, or automobile.

The initial phase of agoraphobia often consists of recurrent panic attacks, and the anticipatory fear of having another attack often causes incapacitation in at least one of the following ways: a) the agoraphobic refuses to enter situations in which such attacks were previously experienced (e.g., travel is restricted); b) the situations are endured with considerable distress/fear of another panic attack; or c) the agoraphobic will only enter these situations when accompanied by a companion.

The agoraphobic may stay in the house and avoid open spaces and public places. Staying in

familiar surroundings provides a sense of security in case an attack occurs. Although the severity of the disturbance waxes and wanes, the avoidance of a wide range of frequently encountered situations may grossly interfere with social functioning and job related activities. Agoraphobics, dominated by their fears and avoidance behaviors, increasingly restrict their range of activities and may become housebound or may refuse to leave his/her home if unaccompanied.

**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 s/he may do something or act in a way that will be humiliating or embarrassing. It is a persistent fear of one or more situations in which the subject must interact with others socially (e.g., a party) or perform (e.g., a concert). The subject fears that in these situations s/he will act in a way that is embarrassing and will consequently be judged as anxious, weak, crazy, or stupid. The person with Social Phobia typically will avoid the feared situation or, less commonly, force him/herself to endure the situation with intense anxiety. During some phase of the disturbance, exposure to the specific phobic stimulus (or stimuli) almost invariably provokes an immediate anxiety response (e.g., palpitations, trembling, blushing, shaking, or difficulty breathing, etc.). Many people feel uncomfortable in some social situations, especially public speaking. Adults (not necessarily children) with Social Phobia recognize that their fear goes beyond this and is **excessive or unreasonable**. The avoidant behavior either; a) interferes with such domains as normal routine, occupational functioning, and relationships with others; or b) is accompanied by marked distress about having the fear.

DSM-IV notes that social phobias involving fear of public speaking are the most common. Phobias about speaking to strangers or meeting new people are less prevalent, while those related to writing, eating in public, and using public lavatories are the least frequent.

In **Simple/Specific Phobia** there is a persistent fear that is excessive or unreasonable, cued by the presence of anticipation of a specific object or situation (e.g., flying, heights, animals, seeing blood, receiving an injection). 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.

### Questions

Q31 Code “yes” only if the subject has an **excessive** fear to any of the three conditions listed

- Q32 Code “yes” if avoidant behavior has developed in relation to the excessive fear(s) held:
- 32a Agoraphobia fear
  - 32b Social fear
  - 32c Simple fear
- Q33 Note what motivated the subject to avoid the situation. For agoraphobia, note whether either a limited symptom attack or panic attack has occurred in the past or whether there is only a fear of developing an attack.
- Q33.a.1 Note whether admitted “avoidant behavior” began during or just after an experienced panic attack
- Q33.b.1 Note whether admitted “avoidant behavior” began during or just after an experienced panic attack
- Q33.c.1 Note whether admitted “avoidant behavior” began during or just after an experienced panic attack
- Q34 Code “yes” if exposure to the phobic stimulus invariably provokes an immediate anxiety response.
- Q35 Code “yes” if the person recognizes that the fear is excessive or unreasonable.
- Q37 Determine if the avoidance, anxious anticipation, or distress in the feared situation(s) interferes significantly with the person’s normal routine, occupational (or academic) functioning, or social activities or relationships, or there is marked distress about having the fear. Be specific in your notes and details.
- Q38.c This question attempts to assess whether the phobic avoidance associated with the specific object or situation is not better accounted for by another mental disorder such as OCD (e.g., fear of dirt in someone with an obsession about contamination), PTSD (e.g., avoidance of stimuli associated with a severe stressor), Separation Anxiety (e.g., avoidance of school), or Panic Disorder.

If the avoidant behavior is **NOT** better accounted for by another mental disorder, code “yes”. It is helpful to record their answer to the side of the question so the accuracy of the coding is evident.

## **Q. Eating Disorders**

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

The eating disorders section is divided into two parts: Anorexia Nervosa and Bulimia. Two screening questions are asked in the Anorexia section, and if the subject answers no to both questions, s/he skips to the Bulimia section because a diagnosis of anorexia 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 if amenorrhea, there is an absence of at least three consecutive menstrual cycles. (The term anorexia is a misnomer since loss of appetite is rare.)

The disturbance in body image is manifested by the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight. A subject with this disorder says s/he "feels fat," or that parts of his/her body are "fat," when obviously underweight or even emaciated. S/he 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.)

### **Questions**

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  $119 - 5 = 114$ .

Q6.a These cutoffs are provided ONLY AS A SUGGESTED guideline for the interviewer, since it is unreasonable to specify a single standard for minimally normal weight that applies to everyone of a given age and height. In determining a minimally normal weight, the interviewer should consider not only such guidelines but also the subject's body build and weight history.

Q10 Specify the medical disorder causing the weight loss and whether it was diagnosed by a physician.

## **Bulimia Nervosa**

The essential features of this disorder are binge eating and inappropriate compensatory methods to prevent weight gain. In addition, the self-evaluation of individuals with this disorder is excessively influenced by body shape and weight. A binge is defined as eating in a discrete period of time, an amount of food that is definitely larger than most individuals would eat under similar circumstances. This behavior is also accompanied by a sense of lack of control. The interviewer should consider the context in which the eating occurred – what would be regarded as excessive consumption at a typical meal might be considered normal during a celebration or holiday meal. A “discrete period of time” refers to a limited period, usually less than 2 hours. A single episode of binge eating need not be restricted to one setting. For example, an individual may begin a binge in a restaurant and then continue it on returning home. Continual snacking on small amounts of food throughout the day would not be considered a binge. In order to qualify for the diagnosis, subjects must have had, on average, a minimum of two binge-eating episodes and inappropriate compensatory behaviors a week, for at least 3 months.

Q25      Individuals whose binge-eating behavior occurs only during Anorexia Nervosa are given the diagnosis Anorexia Nervosa, Binge Eating/Purging type and should (*not*) be given the additional diagnosis of Bulimia Nervosa.

**Section Skip-outs: There are 3 separate skip-outs for this section;** 1) after Q14 if the subject has never gone on a food binge, 2) after Q21 if the subject has never gone on eating binges as often as twice a week for 3 months or more AND was not a lot more concerned about his/her weight and/or shape than most people his/her age during the binge episodes, and 3) after Q22 if both the subject’s binge eating episodes and compensatory behaviors did not occur on an average of twice a week for at least three months.

## **R. Pathological Gambling**

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

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, 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.

Q19        Loss of judgement and excessive gambling may occur during a Manic Episode. An additional diagnosis of Pathological Gambling should only be given if the gambling behavior is not better accounted for by the Manic Episode (e.g. a history of maladaptive gambling behavior at times other than during a Manic Episode).

## **S. Antisocial Personality**

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

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. Antisocial behavior that occurs exclusively during the course of Schizophrenia or a Manic Episode should not be diagnosed as ASP. By definition, ASP 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, substance abuse, and mania/psychosis. 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.

### **Questions**

- Q1.a.2 DSM-IV Conduct Disorder criterion A states that the individual is often truant from school, beginning before age 13 years.
- Q1.e Includes stealing without confrontation.
- Q5-15 The interviewer is directed to probe as necessary for subjects with evidence of Mania, Schizophrenia, or Substance Use Disorders. If a symptom appears to occur only during mania/psychosis, code “no”.
- Q16 Code “yes” (for the positive symptom) if the subject was never able to sustain a totally monogamous relationship for more than 1 year. It is helpful to record their answer to the side of the question so the accuracy of the coding is evident.

## **T. Global Assessment Scale**

The purpose of these ratings is to obtain a general, standardized description of the subject's level of functioning **during the 30 days prior to interview**. Apply the rating scale to information and observations obtained during the interview (e.g., if a current episode of mood disorder and/or psychosis is coded or a suicide attempt occurred or if frequent anxiety attacks have been experienced, use the severity of the symptoms endorsed to help determine the scoring of Q2 and Q3.

### **Questions**

- Q1 Code "yes" if, on day of interview, the subject is in an inpatient or day hospital treatment facility.
- 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.
- Q3 Refers to the subject's functioning at the worst point **during the past 30 days prior to interview**.



## U. Scale for the Assessment of Negative Symptoms (SANS)

The purpose of these ratings is to obtain a general, standardized description of the subject's level of functioning **during the 30 days prior to interview.**

In order to more accurately rate the level of functioning over the past 30 days a few questions may need to be asked for items 14 – 25.

### **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 patients 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 faces 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 patient'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
- 9 - 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
- 9 - 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
- 9 - 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
- 9 - Unknown/cannot be assessed/not assessed

5. Affective Nonresponsiveness

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 responsiveness
- 3 - Moderate: Moderate decrease in responsiveness
- 4 - Marked: Marked decrease in responsiveness
- 5 - Severe: Essentially unresponsive, even on prompting
- 9 - 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 out 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
- 9 - 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
- 9- 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
- 9 - 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.
- 9 - 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%).
- 9 - 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
- 9 - 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%).
- 9 - 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
- 9 - 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
- 9 - 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
- 9 - 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
- 9 - 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
- 9 - 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
- 9 - 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
- 9 - 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
- 9 - 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
- 9 - 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
- 9 - 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 “spacey” 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
- 9 - 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
- 9 - Unknown/cannot be assessed/not assessed

## V. Scale for the Assessment of Positive Symptoms (SAPS)

The purpose of these ratings is to obtain a general, standardized description of the subject's level of functioning **during the 30 days prior to interview.**

### **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

9 - Unknown/cannot be assessed/not assessed

#### 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
- 9 - Unknown/cannot be assessed/not assessed

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
- 9 - Unknown/cannot be assessed/not assessed

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

9 - Unknown/cannot be assessed/not assessed

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

9 - Unknown/cannot be assessed/not assessed

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

9 - Unknown/cannot be assessed/not assessed

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

9 - Unknown/cannot be assessed/not assessed

**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 - Unknown/cannot be assessed/not assessed

#### 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

9 - Unknown/cannot be assessed/not assessed



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
- 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
- 9 - Unknown/cannot be assessed/not assessed

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
- 9 - Unknown/cannot be assessed/not assessed

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

9 - Unknown/cannot be assessed/not assessed

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 ball bearings 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

9 - Unknown/cannot be assessed/not assessed

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

9 - Unknown/cannot be assessed/not assessed

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

9 - Unknown/cannot be assessed/not assessed

16. Delusions of Mind Reading (question omitted from 3.0 version of DIGS)

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

9 - Unknown/cannot be assessed/not assessed

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
- 9 - Unknown/cannot be assessed/not assessed

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
- 9 - Unknown/cannot be assessed/not assessed

**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
- 9 - Unknown/cannot be assessed/not assessed

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
- 9 - Unknown/cannot be assessed/not assessed

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)
- 9 - Unknown/cannot be assessed/not assessed

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
- 9 - Unknown/cannot be assessed/not assessed

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
- 9 - Unknown/cannot be assessed/not assessed

26. Derailment

A pattern of speech in which ideas slip off track onto ideas obliquely related or unrelated. Derailment is a form of speech in which it is impossible to follow the logic of associations. Sometimes the subject will invent new words (neologisms) that presumably have a private meaning.

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
- 9 - Unknown/cannot be assessed/not assessed

27. Tangentiality

Replying to a question in an oblique or irrelevant manner. Tangentiality is a flow of speech directed away from the subject being inquired about, with NO return to the point of departure.

Mild = Plausible connection to question, but only 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
- 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
- 9 - Unknown/cannot be assessed/not assessed

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%)
- 9 - Unknown/cannot be assessed/not assessed

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%)

9 - Unknown/cannot be assessed/not assessed

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
- 9 - Unknown/cannot be assessed/not assessed

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
- 9 - Unknown/cannot be assessed/not assessed

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

9 - Unknown/cannot be assessed/not assessed

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

9 - Unknown/cannot be assessed/not assessed

**W. Modified SIS Ratings (St. Louis site only)**

For further information see Section M.

## **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.

## **Y. 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

## **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.

## Appendix A: Geographical Information

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

## Appendix B: Occupational Categories

### **Managerial and Professional Specialty Occupations**

#### Executive, Administrative, and Managerial Occupations

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

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  
    Physicians' assistants  
Teachers, postsecondary  
    Earth, environmental, and marina science teachers

Biological science teachers  
 Chemistry teachers  
 Physics teachers  
 Natural science teachers  
 Psychology teachers  
 Economical 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 economics teachers  
 Teachers, except postsecondary  
   Prekindergarden 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  
   Authors  
   Technical writers  
   Designers  
   Musicians and composers  
   Actors and directors  
   Painters, sculptors, draft artists, printmakers  
   Photographers

Dancers  
 Performers and related workers  
 Editors and reporters  
 Public relations specialists  
 Announcers

## **Technical, Sales, and Administrative Support Occupations**

### Technicians and Related Support Occupations

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

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 vehicles 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  
 Auctioneers  
 Sales support occupations

Administrative Support Occupations, Including Clerical

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, 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, postal service  
 Mail clerks, exec. Postal service  
 Messengers  
 Material recording, scheduling, and distributing clerks  
 Dispatchers  
 Production coordinators

**Farming, Forestry, and Fishing Occupations**

Other agricultural and related occupations  
 Farm occupations, except managerial  
 Supervisors, farm workers  
 Farm workers  
 Marine life cultivation workers  
 Nursery workers  
 Related agricultural occupations  
 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  
 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  
 Automobile body and related repairers  
 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 apprentices  
 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  
 Patternmaker and model makers  
 Cabinetmakers and bench carpenters  
 Furniture and wood finishers  
 Miscellaneous precision woodworkers  
 Precision textile, apparel, and furnishings machine workers  
 Dressmakers  
 Tailors

- Upholsterers
- Shoe repairers
- Apparel and fabric patternmakers
- Miscellaneous precision apparel and fabric workers
- Precision workers, assorted materials
  - Hand molders and shapers, except jewelry
  - Patternmakers, lay-out workers, and cutters
- Optical goods workers
- Dental laboratory and medical appliance technicians
- Bookbinders
- Electrical and electronic equipment assemblers
- Miscellaneous precision workers
- Precision food production occupations
  - Butchers and meat cutters
  - Bakers
  - Food batchmakers
- Precision inspectors, testers, and related workers
  - Inspectors, tasters, 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

- Machine operators and tenders, except precision
  - 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
- Heat treating equipment 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
  - Mailing 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  
Welders and cutters  
Solders and brasers  
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

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 attendants  
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 operators  
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

Supervisors, handlers, equipment cleaners, and laborers  
Helpers, mechanics and repairers  
Helpers, construction and extractive occupations  
Helpers, surveyor  
Construction laborers  
Production helpers  
Freight, stock, and material movers, hand  
Garbage collectors  
Stevedores  
Stock handlers and baggers  
Machine feeders and offbearers  
Garage and service station related occupations  
Vehicle washers and equipment cleaners  
Hand packers and packagers  
Laborers, except construction

### **Occupation Not Reported**

## Appendix C: List of Medications

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

### Antidepressants

	<u>Trade Name</u>	<u>Generic</u>
	Anafranil	
	Asendin	amoxapine
	Desyrel	trazodone
	Effexor	venlafaxine
	Elavil	amitriptyline
	Ludiomil	maprotiline
	Luvox	fluvoxamine
	Norpramin	desipramine
	Pamelor/Aventyl	nortriptyline
	Paxil	paroxetine
	Prozac	fluoxetine
	Remeron	mirtazapine
	Serzone	nefazodone
	Sinequan/Adapin	doxepin
	Surmontil	trimipramine
	Tofranil	imipramine
	Vivactil	protriptyline
	Wellbutrin	bupropion
	Zoloft	sertraline
	<hr/>	
MAOI's	Marplan	isocarboxazid
	Nardil	phenelzine sulfate
	Parnate	tranylcypromine

## Sedatives/Hypnotics/Minor Tranquilizers

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

## Antipsychotics

<u>Trade Name</u>	<u>Generic</u>
Clozaril	clozapine
Haldol	haloperidol
Loxitane	loxapine
Mellaril	thioridazine
Moban	molindone
Navane	thiothixene
Prolixin	fluphenazine
Risperdal	risperidone
Serentil	mesoridazine
Seroquel	sertindole
Stelazine	trifluoperazine
Thorazine	chlorpromazine
Trilafon	perphenazine
Zyprexa	olanzapine

### Stimulants

<u>Trade Name</u>	<u>Generic</u>
Cylert	pemoline
Dexedrine	dextroamphetamine
Ritalin	methylphenidate

### Antimanic Agents

<u>Trade Name</u>	<u>Generic</u>
Klonopin	clonazepam
Lamictal	lamotrigine
Lithium	
Neurontin	gabapentin
Tegretol	carbamazepine
Valproic Acid	depakene, depakote

## Appendix D: Organic Causes of Mood Disorders

### 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

### 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 B<sub>12</sub>, 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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