Columbia University
DISC Development Group

Interviewer Manual

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User Manual

(English Generic, Spanish Generic, Present State &
Voice DISC Interviews)

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Section 1 Introduction

The Diagnostic Interview Schedule for Children (DISC-IV) is a fully structured diagnostic instrument that assesses thirty-four common psychiatric diagnoses of children and adolescents. The DISC is designed for interviewer administration - either by lay interviewers (people with no formal clinical training) or by clinicians or by self-completion.

The DISC-IV has been designed to obtain information about Diagnostic and Statistical Manual - IV (DSM-IV) diagnoses, essentially by ascertaining the presence or absence of symptoms. The instrument uses the diagnostic criteria as specified in DSM-IV (with DSM-III-R, and ICD-10 in development). It does not elicit contextual information except to determine bereavement reactions, and specific rule-outs that would cast doubt on the diagnoses (e.g. failure to speak in Selective Mutism when unfamiliar with English). In addition, the DISC is DSM-IV loyal and all symptom criteria must be met to meet the diagnosis.

The DISC cannot be used to establish a diagnosis for conditions that require the interpretation of specialized test results or to substitute for information derived from astute clinical observations. For these reasons, it does not cover diagnoses such as pervasive developmental disorders, speech and language disorders, or the organic brain syndromes.

The DISC-IV was originally developed for use in large-scale epidemiological surveys of children and adolescents, but is now also being used in many clinical studies, screening projects, and service settings.

Training for all DISC-IV interviewers is strongly recommended – one to two days for the computer-assisted version, and four to five days for the paper-and-pencil version. This Interviewer's Manual is designed to facilitate these trainings and to provide instruction on the proper utilization of this instrument. It provides information on the procedures that an interviewer should follow during the administration of the instrument, as well as strategies an interviewer can use when encountering potential difficulties.

This manual should be used as an aid to the understanding and administration of the DISC-IV. The focus of the manual will be on the computer-assisted version (C-DISC), with specifically noted sections for the paper-and-pencil version.

Section 2
Computerized Versions of the DISC

Three versions of the C-DISC 4 are available, all of which are copyrighted and distributed by Columbia University. This manual discusses each in a general manner, unless otherwise noted. A summary of each version follows:

Generic C-DISC 4

Diagnostic System: DSM-IV, DSM-III-R, ICD-10
Note: C-DISC Diagnostic reports address DSM-IV criteria

Applications: Paper or computerized (interviewer administered)

Interviews: Parent (of children aged 6-17 years) and Youth (aged 9 –17 years)

Languages: English and Spanish

Diagnoses:

Anxiety Disorders*:* Agoraphobia, Generalized Anxiety, Overanxious (DSM-IIIR), Obsessive-Compulsive, Panic, Post-traumatic Stress, Separation Anxiety, Social Phobia, Specific Phobia

Mood Disorders: Dysthymic Disorder, Major Depressive Episode, Manic / Hypomanic Episode

Disruptive Disorders*:* Attention-Deficit / Hyperactivity, Oppositional-Defiant, Conduct Disorder

Alcohol / Substance Use Disorders: Alcohol use/abuse/dependence, Nicotine use/dependence, Marijuana use/abuse/dependence, Other Drug use/abuse/dependence

Miscellaneous Disorders: Anorexia Nervosa, Bulimia Nervosa, Enuresis/Encopresis, Pica, Schizophrenia, Selective Mutism, Tourette's & Other Tic Disorders, Trichotillomania

Time Period Assessed: Past year, current (past 4 weeks) & Whole Life (optional)
Measures diagnoses that have occurred anytime in last 12 months

Use: Epidemiological research, genetic & risk factor research, assessment of co-morbid disorders, public health / school screening, treatment evaluation

Administration time: Clinical population – 90 to 120 minutes.
Community population – 70 minutes.
Time of administration is dependent upon number of diagnostic modules administered and number of symptoms endorsed.

Program Scoring: Past month (embedded current) and past year diagnoses.
Impairment score (out of 18) based on 6 impairment domains and 3 levels of severity
Immediate report of clinically significant symptoms e.g., suicide ideation
Does not score Whole Life module – separate SAS algorithms available for this.

Testing:	Shaffer, D., Fisher, P., Lucas C, Dulcan, M.K, Schwab-Stone, M. NIMH Diagnostic Interview Schedule for Children, Version IV (NIMH DISC-IV): Description, differences from previous versions and reliability of some common diagnoses. J. Am. Acad. Child Adoles. Psychiatry, 39:1, January 2000.

Present State C-DISC IV

Diagnostic Systems:	DSM-IV, DSM-III-R, ICD-10 (Note: C-DISC Diagnostic reports address DSM-IV criteria)
Applications:	Paper or computerized (interviewer administered)
Interviews:	Parent (of children aged 6-17 years) and Youth (aged 9 –17 years)
Languages:	English
Diagnoses:	As above
Time frame:	Current (past 4 weeks) **Note:** time frame for inquiry varies according to DSM-IV requirements e.g., past year for Conduct Disorder and Substance Use Disorders, past 6 months for ADHD
Use:	Public health/ school screening, intake assessment at mental health / primary care clinics, assessment of co-morbid disorders and treatment evaluation
Administration time:	Clinical population – 90 mins (estimated). Community population - 65 mins. (estimated) *Time of administration is dependent upon number of diagnostic modules administered and number of symptoms endorsed.*
Program Scoring:	Past month (embedded current) diagnosis Impairment score (out of 18) based on 6 impairment domains and 3 levels of severity Immediate report of clinically significant symptoms e.g., suicide ideation
Reliability:	Data currently being collected

Voice DISC

Diagnostic Systems:	DSM-IV, DSM-III-R, ICD-10 **Note:** C-DISC Diagnostic reports address DSM-IV criteria
Applications:	Audio computerization (self-administered)
Interviews:	Youth (aged 9 – 17 years) version only
Languages:	English
Diagnoses:	As above **EXCEPT** Schizophrenia, Pica, Trichotillomania, and Whole Life (NO Voice / audio files available for these sections)

Time frame:	Current (past 4 weeks) **Note***:* time frame for inquiry varies according to DSM-IV requirements e.g., past year for Conduct Disorder and Substance Use Disorders, past 6 months for ADHD
Use:	Public health/ school screening, intake assessment at mental health / primary care clinics, assessment of co-morbid disorders and treatment evaluation
Administration time:	Clinical population – 90 mins. (estimated). Community population – 63 mins. *Time of administration is dependent upon number of diagnostic modules administered and number of symptoms endorsed.*
Program Scoring:	Past month (embedded current) diagnosis Impairment score of "absent," "probable," or "definite" based on 6 impairment domains Immediate report of clinically significant symptoms e.g., suicide ideation
Reliability:	Data currently being collected

Section 3
Description of DISC Modules

The DISC-IV inquires about thirty-four diagnoses in twenty-six diagnostic sections that are arranged into modules of related diagnoses (Modules A - F). An optional whole-life module (Module L - for certain diagnoses only) follows the core interview.

MODULE I: **Introductory Module**

Interview Introduction, Demographic Questions, Current-Year Timeline, Whole-Life Chart

MODULE A: **Anxiety Disorders**

Social Phobia, Separation Anxiety Disorder, Specific Phobia, Panic Disorder, Agoraphobia, Generalized Anxiety Disorder, Selective Mutism, Obsessive-Compulsive Disorder, Post-traumatic Stress Disorder*

MODULE B: **Miscellaneous Disorders**

Bulimia, Anorexia, Enuresis, Encopresis*, Tic Disorder/Tourette's Syndrome, Chronic Motor or Vocal Tic Disorder, Transient Tic Disorders, Pica*†, Trichotillomania *†

MODULE C: **Mood Disorders**

Major Depressive Episode / Dysthymic Disorder, Manic / Hypomanic Episode

MODULE D: **Schizophrenia†**

MODULE E: **Disruptive Behavior Disorders**

Attention-Deficit/Hyperactivity Disorder, Oppositional-Defiant Disorder, Conduct Disorder*

MODULE F: **Alcohol- and Substance-Use Disorders**

Alcohol Abuse/Dependence*, Nicotine Dependence *, Marijuana Abuse/ Dependence*, Other Substance Abuse/Dependence *

MODULE L: **Whole Life†**

Social Phobia, Separation Anxiety, Specific Phobia, Panic Disorder, Agoraphobia, Generalized Anxiety Disorder, Selective Mutism, Obsessive-Compulsive Disorder, Anorexia, Bulimia, Major Depression, Mania, Schizophrenia, Attention-Deficit: Hyperactivity / Inattention, Oppositional-Defiant Disorder

* Whole life questions are embedded within the diagnostic module.
† In the Voice DISC, there are no sound files and thus these diagnoses are not included in the interview.

Demographic / Introduction Module

The DISC begins with an introductory module that serves the following purposes:

- Collects demographic information (eg. the subject's age, grade in school, presence of siblings, identification of caretakers or attachment figures), which is then automatically imported into the structure of diagnostic questions or used to determine whether certain questions should be asked at all (eg. school questions not asked if the youth has not been in school for the past year). See Section 4.

- Completes the timeline and whole-life chart for use as an exercise in recall. See Section 5.
- In the Voice DISC, provides instructional guidelines to the youth on the type of questions that will be asked, the time frames that will be addressed, and how to respond to the questions. See Section 4.

For these reasons the Demographic module **cannot** be skipped. The reliability of the diagnostic sections would be questionable if this section was omitted.

Diagnostic Modules

The remainder of the core interview is organized into six modules (listed above), each of which consists of related diagnoses. Within these modules, each section includes all of the information needed to arrive at a particular diagnosis so that it is "self-contained". Since no hierarchical scoring rules are applied, users can drop diagnostic sections without impacting the scoring of other included diagnoses. To achieve this modular approach, however, there are a few symptoms (e.g., irritability, restlessness, concentration problems) that are queried more than once when the entire interview is administered. As a result, many questions appear to be repetitive, but are actually inquiring about different symptoms, time frames, etc.

Whole Life Module

All interviewer-administered C-DISC 4 versions have an optional whole-life module. This module assesses whether a diagnosis was present prior to the last year and since the age of 5 years. Only cases that are sub-threshold or negative are asked in this section. For diagnoses that are sub-threshold for the past year, a whole-life screen question is asked. This determines whether a worse episode has occurred prior to the last year, and if so the whole life section for that diagnosis will be administered. In negative cases, the whole life module is automatically administered. Certain diagnoses (e.g., enuresis, tics, conduct disorder, and substance-use disorders) are not represented in the whole-life assessment because earlier episodes are asked about in the core diagnostic module. Whole-life information is valuable for genetic and risk-factor studies.

Validity of Whole Life

The validity of the whole-life inquiry has not yet been tested. Given that recall for far-distant psychiatric disorders tends to be mediocre at best, and given that it is influenced by present mental state (Pulver and Carpenter, 1983; Bromet et al., 1986; Dohrenwend, 1990), the whole-life sections of the DISC-IV should be used with caution until empirical research has been completed to support their validity.

Time Frame of Inquiry

The Generic C-DISC 4 assesses the presence of diagnoses occurring both within the past twelve months and past four weeks. The longer time period will yield a higher prevalence rate, and so is of value in risk-factor research. A one-year time frame is also commonly used for public-health reports, which is useful for studies that need to match diagnostic state and service utilization. Another advantage of the twelve-month period is that it covers a full school year, which is helpful in assessing disorders such as attention-deficit/hyperactivity and separation anxiety, for which information about the youth's emotions and behaviors at school are necessary. The shorter, four-week period provides a measure of point prevalence, which can be more accurately recalled than more distant events.

The Present State C-DISC 4 and Voice DISC assess current diagnosis. As such, the time frame of inquiry varies for each diagnosis based upon DSM-IV requirements (e.g., past 6 months for ADHD, past year for

Conduct Disorder). It is also more relevant to clinicians, giving a measure of current symptoms and diagnosis. The wording of these instruments is in the current tense, making the language simpler and easier to understand.

Administration Time

Administration times in community and clinical populations for each version of the C-DISC are outlined in Section 2. Time taken to administer the interview depends solely upon the number of symptoms endorsed by the respondent and the number of diagnoses assessed. Dropping diagnostic modules that are not relevant to a particular setting or study will shorten administration time.

Section 4
Introductory / Demographic Questions

Parent / Caretaker and Youth Questions

With the exception of the Voice DISC, all versions consist of parallel parent (caretaker) and youth interviews. This allows information to be collected from either source depending upon the subject's age and availability.

The caretaker or youth interview should be selected for administration prior to commencing interviewing. If administering the caretaker interview, the Introductory section immediately starts by asking name by which the youth is to be referred to during the course of the interview. This is a useful reminder to interviewers about which informant interview is being administered.

The parent and youth interviews cover the same range of behaviors and symptoms and incorporate parallel questions, although pronouns differ across the two versions of the youth and parent interview. In addition, the parent C-DISC inserts the name of the child into the diagnostic questions where appropriate.

Other differences in the parent interview include the method of inquiring about internal states. For example, the youth interview typically asks, *"Did you feel _____?"* while the question in the parent interview will read, *"Did he seem _____?"* or "*Did he say that he felt _____?"* There are also a small number of questions asked in the parent interview that are not included in the youth version, e.g. in schizophrenia.[1]

Orientation Questions

The demographic module also informs the respondent about the scope of the interview, the format in which their answers are to be given, and what they should do if they have more to say than "yes" or "no". Interspersed within the introduction are a series of questions to ensure that the respondent has understood the instructions, and cues are given to the interviewer to provide further clarification if necessary.

Timeline Questions

Since the DISC measures diagnoses for different time periods, it is very important that the respondent has a clear awareness of the time period covered by each question. The timeline and whole life charts are discussed in detail in Section 5.

Voice DISC Introductory Section

The Introductory section in the Voice DISC is slightly different than that in the interviewer administered versions. Being self-administered, more instructional screens are presented in order to get the youth immediately accustomed to how to respond to the questions and how to use the computer. It also gives the supervisor the chance to check that the youth is able to complete the DISC independently.

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[1] *The C-DISC is programmed to automatically insert the correct subject name, caretaker, and gender into the questions. The paper- and pencil DISC-IV, however, has separate parent and youth interview forms, and the interviewer must insert the correct name, gender, etc., during the interview.*

Why Are These Demographic Questions Asked?

Q2. How old are you?

- Certain questions are asked only of children aged greater than 12 years (e.g. sexual experience).

Q3. When is your birthday …? Was that when you turned …?

- This checks that the subject is actually the age they say, rather than the expected age at their next birthday.

Q4. Do you have any brothers or sisters that you live with?

- This sets up questions in Oppositional Defiant Disorder (ODD) about whether certain symptoms, e.g. fighting, are only with siblings.

Q5. Do you go to school?

- This determines whether school related questions (principally impairment) are asked. If working and in school, then school takes precedence over work. If working and not in school then "teacher" references are replaced with "boss."

- There is also a check as to whether the child has been in school during the past four weeks, and if not, then whether this is due to vacation.

Q6. What grade are you in now?
Q8. Did you go to Kindergarten?

- These help to complete the Whole Life chart.

Q9. Do you have a job?

- This might provide a time marker for the current year timeline.

Q10. Have you always lived in the same house / apartment?

- This might provide a time marker for the current year timeline.

Q11. Do you live with both your parents?

- This allows the impairment questions to refer to "your parents."

Q12. Which adults have you lived with, have taken care of you in the last year?

- This determines the caretaker for use in the impairment questions.

Q12A. Which of these adults do you feel closest to?

- If more than one caretaker is endorsed, then this determines the attachment figure for use in Separation Anxiety questions.

Section 5
Timeline and Whole Life Charts

Since the DISC assesses the presence of symptoms occurring at different time periods, the Introductory / Demographic module includes a "timeline" procedure to improve recall.

Cognitive research shows that people order their memories for events sequentially. That is, people may remember that they started feeling depressed since they went on vacation, but not necessarily that is was since August. In addition, without reminders they may not realize that three months ago was "since they started 9th grade."

During the timeline procedure, subjects are asked about events that have occurred to them during the past 12 months, with the aim of getting one salient and memorable event for each of the time periods used in that particular version of the DISC. Throughout the interview, the timelines are used as a graphical aid to help understand the different time periods covered by the interview, and as a prompt when the time period of inquiry changes during the questioning. When constructed and used well, the timeline and whole-life charts ensure that the respondent is always focusing on the correct time period.

Current Year Timeline

Within the computerized versions of the DISC there are a set of questions at the end of the Introductory module that inquire about past year events. Responses to these are entered automatically into a graphical timeline. The timeline pops up on screen with a time period change in the questions, or the interviewer can request it at any point.

The time period for these events varies for each version of the DISC, based upon the fact that the versions have different time frames of inquiry.

- Generic DISC: inquires about events in the past year, past six months and past four weeks
- Present State DISC: inquires about events in the past year, past six months, past three months and past four weeks
- Voice DISC: inquires about events in the past year, past six months, past three months and past four weeks.

The concept of the timeline is introduced to the subject, followed by a series of questions that address each time period. Beginning with the present, the subject is asked if there is anything they can recall that happened during that time period, and if so, to enter the details about that event. If nothing springs to mind, then the subject is presented with a standard set of probes in an attempt to pinpoint an event. These probes include trying to think of:

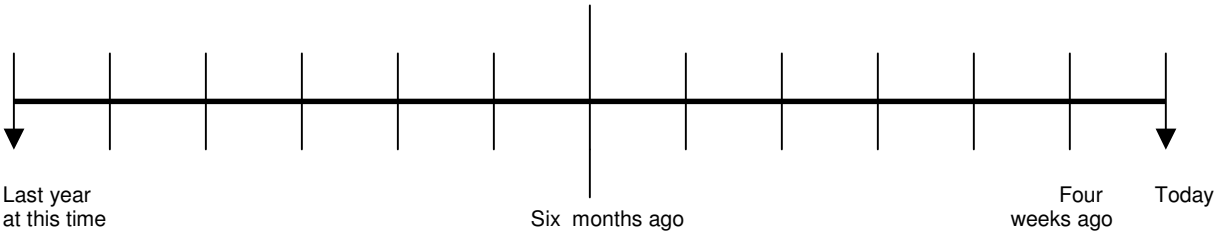
- doing something new, such as joining a team or playing a sport or starting some other program or special activity?
- anybody that moved into your home, or moved out of your home?
- any trips or vacations?

Constructing a Current Year Timeline

Unlike other questions in the DISC, the timeline questions allow interviewers some degree of latitude in probing. Although the demographic section is completely "scripted," the interviewer has some freedom in departing from the "script" in order to ensure that the respondent has understood the questions and, more importantly, to construct the timeline.

If a respondent cannot think of an event in a given time period, but can think of something that happened a little bit before, say thirteen months ago rather than twelve, and another that happened a little bit after, say eleven months ago, the rule is that the interviewer should use the one that happened a little bit before. Alternatively, if a subject is having difficulty thinking of any events, then a shared community event, e.g., a holiday period, can be suggested. With the parent informant, the interviewer can also use events that have occurred to other family members.

In the C-DISC, a brief description of the event is typed in[2]. This description will appear in the graphical timeline. It will also later be inserted into the symptom questions that inquire about that time period. Caution must be observed in typing these events accurately, so that they flow in a grammatically correct format following the word "since," and refer to the subject rather than the interviewer. If you make a mistake, you will be reminded of your error many times during the remainder of the interview, so it is wise to take care with typing. On screen instructions advise the interviewer of how the event description should be entered (e.g. "you went on a trip").



Likewise, the type of event and how it is worded should be taken into consideration. For example, if the event was something traumatic (e.g. being in a bad car accident or being raped), the interviewer should think about how it will sound when repeatedly used. In the first example, one might say, "since [you] were in the hospital" (assuming the child went to the hospital), and in the second, "since [you] were attacked."

The C-DISC program automatically enters certain information previously collected in the first part of the Introduction module into the graphical on-screen timeline. Such information includes: the month school started, the youth's birth month, and Christmas. This happens regardless of whether they are within the time parameters asked about in the diagnostic questions (i.e. a birthday seven months ago is inserted). A summary of such events and when they occurred is presented to the subject before starting the timeline probes. If these events are used in the timeline as markers for the past year, past three months, past six months or past month, then the C-DISC skips the timeline probe for these periods.

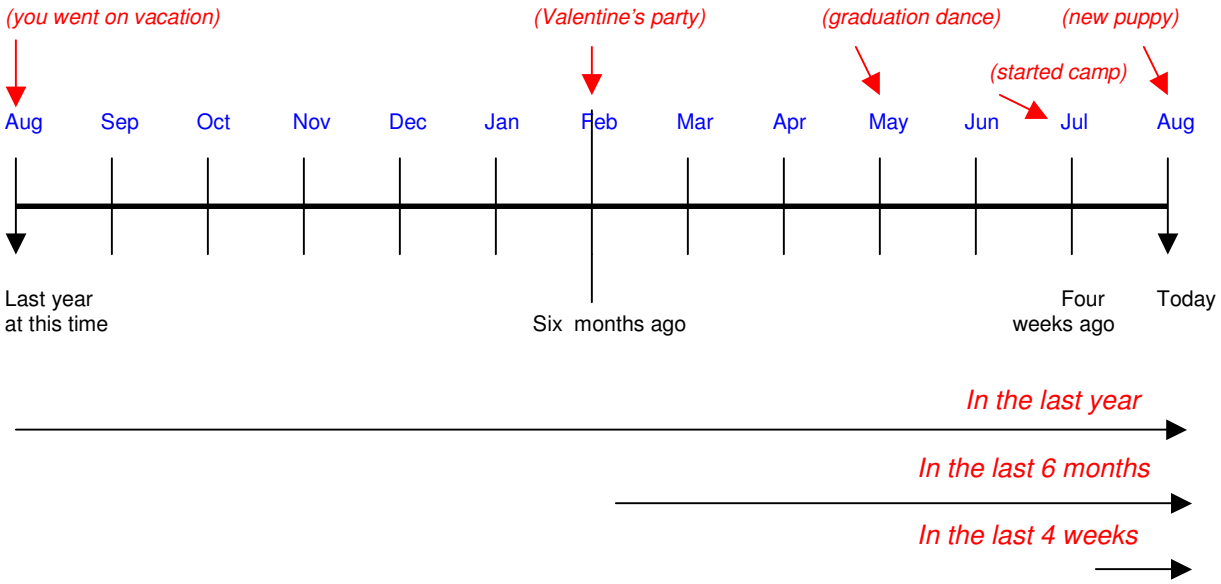
This timeline information automatically entered by the C-DISC is not inserted into the diagnostic questions. Instead the questions will refer to the appropriate month, rather than the event (i.e. April not birthday, September not school starting, or December not Christmas).

Partially for this reason, it is strongly recommended that interviewers also complete a paper timeline, even though the C-DISC constructs a timeline. This allows the interviewer to refer to the hard copy of the timeline during the interview, rather than using the timeline on-screen. The computer offers prompts when information should be copied onto the paper timeline, but many interviewers prefer to write the

[2] *When using the paper-and-pecncil DISC, all timeline events must be written on a paper copy of the timeline. The interviewer will also need to insert events into the structure of the diagnostic questions when necessary.*

information down as they obtain it during questioning. In order to save time during administration, the interviewer should write in the months of the last year on the timeline before beginning the interview.

Example of a Completed Current Year Timeline



How to use the Current Year Timeline

Prior to commencing the diagnostic sections, the interviewer should use the timeline to explain the time periods and to ensure that the subject fully understands the different time periods and their associated markers.

Early on in the interview, you should *point to the timeline whenever you introduce a switch in time period, until the subject is well aware of the connection between the time frame and the relevant event marker*. Many interviewers prefer using the paper timeline rather than the on-screen one, in order to minimize the exposure of the subject to the interviewer's instructions visible on screen.

Throughout the interview, make sure that you and the subject are focusing on the same time period as outlined in the questions. You can always add a new time reminder to the paper copy of the timeline, if the subject seems to need one.

The Whole Life Chart

The interviewer administered Generic and Present State C-DISC have an optional whole-life module, as explained previously. The whole-life chart is intended to help with this module and with the age-of-onset questions throughout the DISC. The basic task is to associate each school grade with an age and a year. Depending on the child's birthday, one year may have two grades, or a school grade may have two ages associated with it. This can be represented by writing on the lines of the chart, rather than within the boxes. Early in the interview, interviewers should obtain and make note of information about ages for starting school, repeated grades, and moves.

At one point in the introduction, the interviewer is instructed that if the whole-life chart is "sparse" (generally, periods of more than three years without an event), the interviewer can use his/her own questions to fill in details. This generally would include moves, changes of school, birth of siblings, etc.

However, interviewers should not spend an excessive amount of time in this activity and should aim to get a marker for every two to three years after the age of four.

Example of a Completed Whole Life Chart

Age	Grade	Year	Events
Birthdate		1990	
1		91 – 92	← Sister Born
2		92 - 93	
3		93 – 94	
4		94 – 95	
5	K	95 - 96	↕
6	1	96 – 97	↕ Primrose Elementary School
7	2	97 – 98	↕
8	3	98 – 99	↕
9	4	99 – 00	↕ Somers Intermediate School
10	5	2000 - 01	↕
11			
12			
13			
14			
15			
16			
17			
18			

Voice DISC Timeline

The Voice DISC utilizes a current year timeline in the same way as in the interviewer administered DISC. However, being a self-administered interview, the subject will need to type in the events when asked. During the diagnostic sections, the event entered will appear on screen in parenthesis at the appropriate place to serve as a time marker (e.g. In the past four weeks (played hockey) did you ….?). The event will not be read aloud by the computer, and the subject is informed of this during the Demographic section.

No paper timeline is necessary for administration of the Voice DISC. The timeline automatically pops up on screen when the diagnostic questions refer to a different time period, or the subjects can pull it up themselves if needed.

Since the Voice DISC does not administer the Whole-Life module, the Whole Life chart is not needed. The age of onset questions are still asked, but instructions in the Introductory section alert the subject that at times they will need to think back to their entire life.

Section 6
Question Structures

The complete DISC contains approximately 3,000 questions, which fall into the following categories:

Stem Questions

There are 358 “stem” questions that are asked of every respondent. These describe the essential aspects of a symptom in broad terms, are designed to be overly sensitive, and yield many false positives. That is, most people who have the symptom will endorse it, but most will **not** turn out to have the symptom.

Contingent Questions

There are approximately 1,300 “contingent” questions that are asked if a stem or previous contingent question has been answered positively. Contingent questions are used to determine whether an endorsed stem symptom meets frequency, duration, and intensity criteria specified by DSM-IV. Therefore, these questions function to reduce the number of false-positive responses to the stem. Use of the stem-contingent structure allows the DISC to reduce the time of administration while defining the attributes of symptoms.

Age of Onset Questions

Following the symptom questions, there are questions assessing the age of onset and impairment. These are only asked if a “clinically significant” number of symptoms have already been endorsed - usually, half or more of those required for the diagnosis. Onset asks for the age at which the endorsed symptoms first started, followed by a series of questions to assess earlier discontinuous episodes. These questions determine:

- the age of the subject the first time the symptoms appeared
- whether the age of onset is in the last year
- the age of onset of the current episode of symptoms
- whether there has been more than one episode since the first onset

Impairment Questions

In addition to the presence of symptoms, most DSM-IV (American Psychiatric Association, 1994) diagnoses require the presence of significant distress or impairment as a criterion for diagnosis. Therefore, the DISC incorporates a series of impairment questions at the end of each diagnostic section, which are only asked if a “clinically significant” number of symptoms have already been endorsed - usually, half or more of those required for the diagnosis. These questions are uniform across all diagnoses. They inquire as to whether the symptoms present during the last year have resulted in any degree of impairment in six different social domains:

- getting along with parents/caretakers
- participating in family activities
- participating in peer activities
- academic/occupational functioning
- relationships with teachers/boss
- distress attributable to symptoms.

Each set of questions has a two-part structure, the first determining whether impairment is present, and the second measuring severity or frequency. The DISC assesses three levels of impairment severity (see Section 8).

Treatment Questions

These questions ask if the subject has/had an appointment at a hospital, clinic, or office to see someone about the condition, and subsequently who that person was, what treatment was prescribed, and what the person who they saw said was the matter with them.

Whole Life Questions

The structure of the whole-life questions is different from the rest of the DISC-IV. Stem questions are longer and are phrased as descriptive vignettes to capture the essence of a particular disorder. For example, the vignette for agoraphobia reads:

- *"Since [CHILD'S NAME] turned five years old, has there ever been a period of time when he would get really nervous or afraid or worried every time he was in a place where it would be hard to leave or to get help in a hurry … like crowded places or elevators or buses or trains?"*

If the answer to the question is "no", the interviewer skips to the next vignette. Otherwise, more information about the period of time is obtained. Certain single-symptom diagnoses (e.g., enuresis, tics) are not represented in this module because lifetime episodes are asked about immediately following the more recent assessment.

Order of Questions

Figure A below, presents a diagram of the typical organization of each diagnostic module. First, stem and contingent questions are used to assess whether the symptomatic criterion for the diagnosis has been met. Then, if at least half of the necessary criteria are endorsed, age of onset, impairment due to the symptoms, and treatment are asked about. Finally where applicable, the whole-life screen question is asked, inquiring if the disorder was present previously.

Figure A:

Symptoms:	Stem question
If Yes:	Contingent questions to assess necessary details for criterion (e.g., duration, frequency, intensity).
If No:	Skip to next stem question, or to next diagnostic section
Possibly Clinically Significant:	i.e., half or more symptoms endorsed,
Ask:	Onset
	Impairment
	Treatment
Whole Life Screen:	Possible previous episodes (for diagnoses included in whole life section only).

Section 7
Interview Administration

This section highlights some of the most important aspects of DISC administration. Examples are taken from the interviewer-administered DISC to illustrate. The Voice C-DISC eliminates many of the issues presented here due to the audio presentation of the interview.

Read the Questions Exactly as Written.

Questions in the DISC-IV have been carefully composed to be short and simple and to be read by the interviewer ***exactly*** as written. They typically contain one, or at most two, concepts (e.g., a time period and a symptom description). Questions that require more complex information are broken down. Given that the DISC is read to the youth, either by an interviewer or by the computer, the youth's verbal comprehension level is more of an issue than his or her reading level. Although it has never been formally assessed, a typical nine year old should be able to understand the questions.

Even if you think that there is a better way of getting at the same information or that the question is poorly worded, you must read the question exactly as written, as this is the key to ensuring comparability of the data gathered across different interviewers and different studies.

If the interview does not provide an example of the behavior asked about in a question, do not provide your own example or explanation to the subject as a way of helping them overcome their misunderstanding. If you change the wording of a question even slightly, it may affect how the respondent answers, so that a "yes" answer becomes a "no."

Imagine that a question in the interview should be read as in (a) below, but an interviewer accidentally reads it as in (b):

Interviewer: (a) Does she often have *trouble* staying in her seat at school?
Interviewer: (b) Does she often have *a problem* staying in her seat at school?

A parent might answer the first question "yes," but say "no" to the second question. Although the parent might know that her daughter bounces up from her chair every few minutes, he/she does not view it as a "problem." This kind of subtle change in the phrasing of questions is common when people are reading aloud, and it can easily result in completely different answers being given.

Read the Complete Question.

When administering the DISC, it is not unusual to have the respondent interrupt you by answering before they have heard the complete question. When this happens, politely explain that you have to read the entire question and read the question again. In the Voice DISC, it is possible to move to the next question before the complete question is read aloud, but it is recommended that the youth allow the entire question to be read before selecting an answer.

An example of when this might occur is in Q8 of the MDD (major depressive disorder) section:

Interviewer: "In the last year - was there a time when you had trouble sleeping, that is, trouble falling asleep, staying asleep, or waking up too early?"

In this example, if the respondent were to answer "yes" after "trouble sleeping," it would be unclear whether he/she was answering the question about insomnia (trouble falling or staying asleep) or

hypersomnia (trouble with sleeping too much). The end of the question serves the purpose of explaining what the term "trouble sleeping" means.

Repeating Questions and Backing Up

The C-DISC has task buttons at the bottom of the screen that allow for moving through the interview by selecting the previous and forward buttons. In configuring the interview before the subject begins, a back up limit can be altered from the default setting of 10 questions. In this way, the Voice DISC can be configured to control the subjects' ability to utilize the previous and forward buttons. The subject can "back up" several questions to correct a recording error or to check a previous question. It is recommended, however, that doing so is limited to a few questions.

In the interviewer administered DISC, if a respondent provides new information that contradicts previous responses, the general rule is that *you may not back up in the interview and change previous responses*. For example, if the respondent reports no headaches in separation anxiety and many headaches in general anxiety, you must accept this contradiction without comment.

If you think that the respondent has misunderstood a previous DISC-IV question, you are allowed to back up and ask a question again (emphasizing key words) according to the following rules:

1. In the conduct disorder section, back up only to the previous stem (numbered) question but *never* back up through more than two question numbers. *This is different from the general rule, as many of the contingent questions in this module are not labeled with a letter, but rather with a number*.

2. By backing up, if a key question is asked again, then all subsequent questions must be asked as if they had never been asked before.

3. Never back up into the previous diagnostic module.

4. Certain questions (e.g., dates and height/weight) have automatic checking of valid responses (e.g., age of onset older than "current" age) within the C-DISC program. You may need to back up to correct an error.

Emphasize the "Active" Part(s) of Each Question.

Many questions have an "active" part, which is a word or phrase that distinguishes the question. In the C-DISC program (and the paper DISC), these words or phrases tend to be underlined. The active part might be the time frame (e.g., "in the last year") or a qualifier (e.g., "Did you often lose your temper?"). If the subject has not understood the meaning of the question, repeat it, emphasizing those words that you think were misunderstood.

Unless the response is part of the question, as with the impairment questions, do not provide the respondent with the answer options. When read, the impairment questions provide the options, "would you say: a lot of the time, some of the time, or hardly ever?"

Pay Attention to the Time Period and Transitions of the Questions.

In the interviewer administered DISC-IV, make sure that you and the subject are focusing on the same time period as outlined in the questions. You can always add a time reminder, if the subject seems to need one, by identifying the period on the timeline chart. See Section 5 for more information on how to use the timelines.

Introductory or transitional statements are sprinkled throughout the DISC where it is thought necessary to focus the respondent's attention on a new topic or symptom area, or on a change in the time frame of

inquiry. These are to be read exactly as written, unless, due to the dropping of certain diagnostic modules, they no longer make any sense.

Create a Comfortable Working Environment.

As part of the introduction to the DISC-IV interview, the interviewer informs the respondent that most of the questions in the interview can be answered with "yes" or "no." If they wish to discuss things at any greater length, they are instructed that the interviewer will write it down, so as to talk about it *later*.

Despite this, some respondents might give you more information than you have asked for, particularly if the child or adolescent has problems. The interviewer is often viewed as an interested person who would like to hear more about their concerns. Indeed, interviewers are often chosen for their warm manner and friendly personalities. It is important, however, that you gently discourage the respondent from giving additional information, as it slows down the interview. To discourage discussion, it might help to say something like, "Should I write that down to talk about later?"

If you do find that you must listen patiently to avoid upsetting or irritating the respondent, then by all means do so. In most cases, however, you can discourage this by listening attentively but not responding, or by acknowledging the respondent's extra statements with something neutral, such as "I see" or "I understand," and then asking the next question.

It is essential that you interact with respondents in a neutral, non-judgmental manner. It is possible that the respondents will tell you about actions that are illegal, or that, in your personal view, may be immoral, sad, or shocking. Regardless of what you hear, you must accept the information without conferring your own feelings verbally or non-verbally. Respondents must feel comfortable telling you confidential information.

For example: If a mild-mannered adolescent female admits to shoplifting and forgery, do not act shocked or display any reaction that may stop the subject from answering truthfully or at all.

Practice Reading and Asking the Questions.

The DISC-IV is about mental health problems, including many sensitive, undesirable, or embarrassing behaviors. Some of the questions might seem a bit strange at first or make you feel uncomfortable when you read them aloud. Most people have never asked another person if they have hallucinations or strange thoughts. Other questions can make you feel uncomfortable because they address personal matters, such as sexual behavior, illegal acts, and drug use.

Practice increases your level of comfort and gives your interview a conversational quality. It is important to be aware of all the questions in the interview. Think about and identify those questions that make you feel uncomfortable and *practice* asking these questions by reading them aloud several times. DISC training includes some practice reading the questions, but most interviewers need additional practice on their own. It is best to have someone help you role play an interview before embarking upon an interview with a real subject.

Research suggests that respondents feel less uncomfortable, and answer even very embarrassing items more comfortably and truthfully, if the person asking the question feels comfortable and confident. Thus, *present such questions in a matter-of-fact way. Respond warmly but neutrally and find a way to move on. In the end, you must use your own judgment to decide how much tact you should use.*

Be Aware of Questions that Contain "[ ]" and "( )"

Square [ ] Brackets

*** <u>FOR PAPER DISC ONLY</u>:**

Many questions in the Paper DISC–IV will have words in square brackets ([ ]) separated by slashes (/). For such questions, the interviewer is to choose the most appropriate phrase, based on responses to previous questions. The general rule is that *all* appropriate phrases are read *unless* there is a specific instruction to do otherwise.

Other exceptions to the general rule of reading back everything in the brackets are listed below:

- School/Work Questions

Questions that inquire about behavior and problems at school or work always contain the square brackets, in which the school and work alternative formats are separated by a slash.
If the child both attends school and has a job, only the school setting is asked about. In other words, in the DISC-IV, *school takes precedence over work*.

- Other Children/Young People

Some questions give the interviewer a choice about whether to ask about other "children" or other "young people." "Children" is used if the subject is under age twelve; "young people" is used for subjects twelve and older.

- [NAME EVENT]/[NAME CURRENT MONTH] of last year] and other time frame-reminders

In questions that refer to a timeline event as a marker, the interviewer should read back the event marker if one was obtained; if not, the month is used.

*** <u>FOR C-DISC:</u>**

- In several questions in the PTSD section, the interviewer must make a choice between words in square brackets ([ ]) separated by slashes (/). The C-DISC provides specific, on-screen instructions for these questions that guide the interviewer to choose the most appropriate phrase(s).

Round ( ) Parentheses

Some questions in the interview have words in parentheses. The interviewer should read the enclosed words only if they are needed to clarify the question. If they are not needed, do not read them. Sometimes a time frame reminder is enclosed in parentheses. In that instance, it must be read if the previous question inquired about a different time period.

How to Handle Respondents' Questions or Provocations

The following are instructions for when a respondent asks *you* (the interviewer) a question.

Requests for Clarifications

Sometimes respondents will ask you to clarify a question. For example:

Interviewer: "When other things were going on, did Allen often find it hard to keep his mind on what he was doing?"

Respondent: "When what kinds of things were going on?" or "What do you mean by that question?"

The best way of dealing with this is to state: '"We're interested in your own interpretation of the question" or "We just want to know what you think."

Requests for Definitions of Terms

If a respondent asks for a definition of a term, the interviewer is to ask what the term means to the individual. If the individual says that they do not know, the interviewer is allowed to define the term using the tried and true, "whatever it means to you."

The interviewer may **NOT** make up definitions for terms.

"How much longer will this take?"

Sometimes respondents ask this because they need an accurate estimate of the time remaining in the interview. Please estimate the time of completion as accurately as possible when asked.

Some youths might repeatedly ask this question as a way of complaining about the duration of the interview. After responding several times with an estimated time, the interviewer might wish to warmly answer, "in a while," "we have a little while to go," or "pretty soon."

If respondents repeatedly ask about the remaining time, they might do better if they take a short break and then resume. Please only suggest breaks if you feel that the they are not paying sufficient attention to the questions. With a youth interview, remember that with some children their focus on the interview might not improve even after a break.

"Are you going to ask me about _____?"

If a respondent asks if the interview will cover anything that they particularly want to discuss, the interviewer should answer as honestly as possible and remind the respondent that they can talk about anything not covered at the end of the interview.

Comments About Questions that Have Not Yet Been Asked

Sometimes respondents announce that they will not answer any questions in a section that you have not yet reached. For example:

Respondent: "Okay, I'll tell you about this stuff, but I'm not answering any questions about drugs or nasty stuff like that!

When you reach the section that contains the questions that they have told you that they will not answer, go ahead and begin asking the questions. Respondents often change their mind about answering questions after they have grown to trust the interviewer.

If the respondent refuses to answer any questions, however, please respect their right to do so. In this case, enter "refused" (code 7) and make a note to discuss the situation with your supervisor (ALT-N).

Requests for Information About the Youth's Mental Health

Occasionally, a parent or youth might become concerned when they answer "yes" to a question (or a series of questions) about emotional or behavioral problems. They might want to know whether this means that there is something wrong with them. It is important for you to be noncommittal in response to this. It could be harmful for you to mistakenly offer reassurance when the youth has a problem, and equally harmful for you to raise concerns about a youth who does not have problems.

The interviewer can safely state that saying "yes" to questions doesn't necessarily mean there's something wrong. You can also safely suggest that children and adolescents who are concerned about a problem can talk it over with their parent(s), physician, or school counselor.

Responding to a Provocation

Occasionally, a respondent will say provocative things to an interviewer. Respond to these in a neutral way and move quickly on to the next question. The following are examples of provocations and acceptable interviewer responses.

Example 1:

Respondent: "I never worry if my mother goes away. I wish she would leave for good or die!"

Interviewer: Ignore the statement and move on.

Example 2:

Respondent: "You don't care if I'm sad or not!"

Interviewer: Say, "Sure I do," and read the next question.

Respondent: "No you don't. You care more about that computer than about me."

Interviewer: Ignore and move on to the next question.

Example 3:

Respondent: "You aren't asking me about anything I care about."

Interviewer: "When I'm finished with these questions, I hope you'll tell me about anything important that I missed."

It is important for the well-being of the youth and for the success of the interview that you not get locked into arguments or lengthy exchanges with the respondent about such matters. If you respond neutrally and move on, the respondent will usually let the issue drop.

Section 8
Interview Responses

Throughout all modules of the C-DISC, each available answer will be displayed on screen after the question.

These usually include:

1 for 'Yes' and 2 for 'No' [3]

With some questions (e.g., in the impairment section of each diagnosis) you are also given the option to enter:

3 for 'Sometimes / Somewhat' [4]

In addition, throughout the interview other key code responses are available, but are not displayed on screen. These include:

7 or 77 for 'Refuse to Answer'

8 or 88 for 'Not Applicable'

9 or 99 for 'Don't Know'

In addition, throughout the DISC there are several questions asking for an age to be inserted. If the age is unknown and ? is inserted then this will bring up a prompt for school grade. Codes for grades other than 1 to 12 will appear on screen.

66 for whole life

44 for pre-K and 55 for Kindergarten

14 for Sophomore

15 for Junior and 16 for Senior

13 for College Freshman and 17 for Post B.A.[5]

The C-DISC will only accept responses specified on screen or standard hidden response types (e.g. 77 for 'refuse to answer,' 88 for 'not applicable,' or 99 for 'don't know.')

Note: The ASCII data file produced by the C-DISC program uses the codes for responses as defined in the paper-and-pencil DISC, not necessarily the codes keyed into the computer. (However, this change does not affect how you should enter responses into the computer according to the above instructions.)

[3] *In the paper-and-pencil DISC, a 'yes' response is coded as '2', and a 'no' response is coded as a '0.'*

[4] *In the paper-and-pencil DISC, a 'sometimes' response is coded as '1.'*

[5] *Users of the paper-and-pencil instrument should use only the codes that appear next to the item. Ad hoc codes should not be created, particularly if planning to use the SAS scoring algorithms to analyze the data.*

"Sometimes/Somewhat" Responses (code 3)

It is intended that most questions be answered 'yes' or 'no,' and therefore a 'sometimes/somewhat' response is not available for most questions. It will be seen on screen as a response option only where appropriate (e.g. impairment questions). The 'sometimes/somewhat' response is treated as a 'yes' in the C-DISC in determining question flow.

"Refuse to Answer" Responses (code 7 or 77)

In the rare case that a respondent refuses to answer a question, a '7 or 77' is coded. *Do not code the question with a '9 or 99'.* If possible, make a note of anything relevant to the subject refusing to answer.

In the internal scoring of the C-DISC program a 'refuse to answer' will be treated as a 'no,' and hence could affect whether the subject meets a diagnosis. If the separate SAS scoring algorithms are used to analyze the data, 'refuse to answer' will be treated as a 'missing response.' A 'refuse to answer' entry will be seen as such on a reconstruction of the interview.

"Not Applicable" Responses (code 8 or 88)

The benefit of using the C-DISC program is that questions that are not applicable to a subject are generally automatically skipped based upon previous responses (e.g., a teenager that works and does not go to school would be asked questions about their work situation rather than school).[6]

With certain questions, on-screen interviewer instructions will indicate when a 'not applicable' response is appropriate. An example can be found in specific phobia (Q20) when the subject is asked how they feel when they are near the object of their fear. If they have not been exposed to the object then 'not applicable' would be a reasonable response.

In the internal scoring of the C-DISC program 'not applicable' will be treated as a 'no,' and hence could affect whether the subject meets a diagnosis. If the separate SAS scoring algorithms are used to analyze the data, 'not applicable' will be treated as a 'missing response.' A 'not applicable' entry will be seen as such on a reconstruction of the interview.

"Don't Know" Responses (code 9 or 99)

The 'don't know' response is appropriate when the respondent really *does not know the answer* to the question. An example of this would be if the foster or adoptive parent could not answer questions relevant to a period in the child's life during which they did not know each other. A youth respondent should really be able to answer all of the questions.

Similarly, some parents might say they don't know because the symptoms might be occurring without the parent's knowledge (e.g., schooled-based behaviors, substance abuse, etc). The most appropriate response would be for the interviewer to ask "To the best of your knowledge…" or "As far as you are aware…"

In age / grade related questions, '9' should not be used, as '9' would be accepted as the age / grade rather than as a 'don't know.' In such cases use either '99' or a ?.

For the parent interview, in both the C-DISC and the SAS algorithms, 'don't know' responses will be treated as a 'no,' and hence could affect whether the subject meets a diagnosis. For the youth interview, 'don't know' will be treated as a 'missing response' in the SAS, and 'no' in the C-DISC scoring. A 'don't know' entry will be seen as such on a reconstruction of the interview.

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[6] *Whereas the C-DISC skips inappropriate questions automatically, the paper-and-pencil user would need to code 8 or 88 to questions irrelevant to their subject based upon instructions given in the paper DISC.*

Impairment Responses

As discussed in Section 6, the DISC has a standard set of impairment questions at the end of each diagnostic module. Confirming impairment in any of the six domains presented will result in further inquiry as to the severity of the impairment / distress in that area. Three levels of severity or frequency are given in the text of the questions (e.g. "…would you say very bad, bad, or not too bad?" or "…. would you say a lot of the time, some of the time, or hardly ever?") and presented on screen as available responses:

1 for a lot of the time / very bad
2 for some of the time / bad
3 for hardly ever / not too bad [7]

The Clinical Report produced by the C-DISC generates a tally of the degree of impairment, which can be used as an indication of whether symptoms present have any affect on the daily functioning of the subject. The separate SAS algorithms can also be used to generate diagnoses with varying degrees of diagnosis-specific impairment.

Open-Ended Questions

There are three types of open-ended questions in the DISC interview that require typed-in responses.

- One type asks for additional details about a complex symptom (e.g. schizophrenia or obsessive compulsive disorder) where the nature of symptoms and experiences should be entered in some detail (so that a clinician might later review their features). A full and detailed description should be typed in.

- A second type is seen in the demographic section (timeline questions) and in PTSD where an item is typed in order to be inserted in subsequent questions (e.g. In the last year, that is since [typed-in event]). Specific instructions will be given in the C-DISC as to the syntax that is expected (i.e. events should follow grammatically the word "since").

- The third type is seen in the optional details of treatment received and diagnoses made at the end of each diagnostic section. Depending on how C-DISC information is being used, interviewers may include little or extensive detail in these questions.

Interviewers should take care in how they type these open-ended responses into the computer. The first type of open-ended questions (complex symptom details) should be recorded verbatim by the interviewer. The second type (inserted text) should be briefly phrased so that they follow the instructions given.

Additional instruction regarding timeline construction and its associated open-ended instructions are discussed in detail in Section 5.

No typed-in responses are used in the scoring of the interview. No codes are available for these responses, but may be assigned later according to the needs of the DISC user.

[7] *In the paper-and-pencil DISC, the codes for severity of impairment are as follows: 3 for 'a lot of the time / very bad,' 2 for 'some of the time / bad' and 1 for 'hardly ever / not too bad.'*

"Select All" Responses

A few questions in the DISC present the subject with a list of items from which they can make one or more selections. Examples of these can be found in the Demographic module when asking about caretakers, and also in specific phobia when presenting a list of possible fears. With these questions, subjects are allowed to endorse any number of items relevant to their situation. A letter in front of the item rather than a number generally indicates items in a list. This letter will be numerically coded in the ASCII data file. The computer will wait for the [ENTER] key or the 'Forward' button, to be pressed / clicked before going onto the next question, allowing the respondent time to select multiple items.

Probing for Responses

"Probing" is a highly structured technique used to help ensure that the answers given by the respondent are as accurate and complete as possible. Probes serve two purposes:

(a) They help the respondent understand the questions being asked.
(b) They help the interviewer obtain a clear response from the respondent that can be coded.

The interviewer needs to understand the objective of each question (i.e. what is being measured and what constitutes an acceptable response) so that the adequacy of the response can be judged. Fortunately, the object of most questions is clear, but training and practice in DISC interview techniques helps to clarify this.

Note: Acceptable probes will result in a response that can be coded, generally a "yes" or "no." The only exception to this is in the schizophrenia module, where some probes will encourage the subject to describe a symptom further (e.g. schizophrenia Q20D).

Some Rules for Probing by Repeating All or Part of a Question

- Repeat the entire question or part of the question, emphasizing key words or phrases that the respondent did not understand (i.e., the "active" part of the question, a frequency requirement, or a time frame).
- When repeating the question, pause slightly between parts of complex phrases.
- If the question is preceded by an introductory statement, do not repeat the introduction unless you think the respondent did not understand it and needs to hear it again.
- It usually helps to maintain rapport by initially saying, "Let me repeat the question," but this is optional.
- Be sure that your tone of voice does not insult the respondents when you reread the question. A respondent is trying to answer a lot of complex questions and can easily become confused.
- Sometimes several questions are asked about the same event and phrases such as "something like that," are used instead of repeatedly describing the same event. If you need to repeat these questions because the respondent doesn't remember the event you are referring to, you will need to back up to the preceding question that fully describes it. Do not trust your own memory. It is better to back up and reread the question or key part of the question exactly as it was written.
- The strongest method of probing is simply to repeat the question. Acceptable probes obtain information that is complete, accurate, and useful to the researcher who will later analyze the data. It is essential that you use *only approved probes* and that you use them only in the ways listed below. Deviation from these guidelines for probing will compromise the quality of the data.

If the respondent…

Gives a Clear Answer, But Not a "Yes" or "No"

If the respondent gives an answer to a "yes" or "no" question that is clearly equivalent (e.g., "absolutely," "not at all," "she's always like that," or "constantly!"), enter "yes" or "no," even though the respondent did not actually utter those words. There is no need to probe in such cases.

Says "Yes" or "No" and More

Respondents often say "yes" or "no" and then give you additional information that supports the response. In such cases, ignore the additional information and enter the appropriate answer without probing. For example:

Interviewer: "During this school year, did she often dislike doing things where she had to pay attention for a long time?"
Respondent: "Yes! She hates to read."

In this case, the "yes" answer is clear, and the additional statement does not contradict the answer, so you should enter "yes" without probing.

Gives a Response that Appears to Contradict What They Intended

If you think the additional information might contradict the "yes" or "no" answer, repeat all or part of the question. For example:

Interviewer: "In the last year, has he been very afraid of dogs?"
Respondent: "No, he's *always* been afraid of dogs!"

They have apparently interpreted the question as asking whether the fear has only been present in the last year. In this instance, you should repeat the question using a slightly different emphasis, making the respondent aware that it is the *fear in the last year,* not the onset of the fear that is the focus of inquiry.

If it's still unclear, the interviewer can probe further by asking, "Is that a 'yes' or 'no' answer?" or, "I can only accept a 'yes' or 'no' answer." However, do not challenge the respondent in a way that is demeaning or upsetting.

Doesn't Understand the Meaning of the Question

If the respondent tells you that they do not understand the question, or if their answer makes no sense, indicating that they did not understand, say, "Let me read the question again," and repeat the question or part of the question, emphasizing key words. This should be your first response.

Further probing depends upon which of the two following categories the misunderstanding falls into.

1) Miscomprehension of factual, non-symptom questions – where the question is asking for a response to a fact. For example:

   Interviewer: "In the last year, have you gone out someplace without him?"

The respondent indicates that they do not understand what you mean by "gone out," which is a misunderstanding of a factual event, and so it is adequate to clarify it by saying something like, "It means leave the house/apartment."

In such cases, make a note of exactly what you said (ALT-N) and alert the study supervisor that a question was not understood.

2) Miscomprehension of a symptomatic question—where you are asking for a response to the presence of a symptom. For example:

Interviewer: "In the last year, has he counted certain things over and over again …"
Respondent: "What do you mean by 'certain things'?"

In this case the interviewer may give a nonspecific answer such as "anything," but may not give examples of things that could be counted or interpret the question in any other way. If, however, the subject still does not understand, make a note (ALT-N) of their exact response and inform the study supervisor of it directly after the interview.

Gives an Unclear Response That is Neither a "Yes" or "No"

If the subject answers with a sentence, rather than "yes" or "no," and you are unsure of its meaning, clarify if necessary by saying:

*Interviewer: "*Does that mean your answer is 'Yes' or 'No'?" or "Does that mean they did see a doctor?"

Do not stray further from the exact wording of the questions and response options than this. If you are still uncertain about the correct answer, code your best guess and make a note (ALT-N) of the respondent's exact response.

Asks "How often is often?"

Questions regarding symptoms that must occur "frequently" according to the criteria use adverbs such as "often," "usually," or "a lot." If the respondent asks, "How often is usually?" you may say something like, "It's whatever it means to you."

You may provide the other adverbs, but, beyond that, *the interpretation of these words is left up to the respondent.*

Answers "Sometimes" or "Somewhat"

With answers like these or something similar ("sorta", "a little, I guess," or "some of the time, but not all of the time") to a question with a response category of "sometimes/somewhat" (e.g., impairment questions), enter that code and do not probe.

If there is not a response category for "sometimes/somewhat," the interviewer must decide what to do. The decision you make depends on the nature of the question that you just asked. In some instances, a "sometimes/somewhat" response is an obvious "yes," and so this should be entered without further probing. For example:

Interviewer: "Have you *ever* gotten into trouble because you stayed out at night more than two hours past the time you were supposed to be home?"

Respondent: "Sometimes."

This is indicative that they have gotten into trouble for staying out later, and so the interviewer should enter "yes."

However, it is also common for respondents to say "sometimes" to questions that have a frequency requirement ("often," "at least once a week," etc.). In such cases, you should always read all or part of the question again, emphasizing the frequency term. For example:

*Interviewer: "*Has she often had trouble sitting still?"
Respondent: "Sometimes."
Interviewer: "Has she *often* had trouble sitting still?" (Or say: "For this question I need either a 'yes' or 'no' answer.")

Only repeat a question once.

Gives a Vague or Unclear Answer

In some cases, the respondent may appear to have understood the question, but gives a vague or unclear response, such as "It depends" or "Oh, Lordy!" or "Sometimes yes, sometimes no."

If you are sure that the respondent has understood the question, the interviewer needs to clarify the response by asking such probes as:

Interviewer: "Is that a 'yes' or a 'no' answer?" or "For this question, I need a 'yes,' 'no,' or 'sometimes/somewhat' answer."

Gives a Response That Applies to a Later Question

If you think that an answer given previously in the interview is applicable to a later question, don't assume the answer. The interviewer must still read the question exactly as written and, if asked, acknowledge that some questions may be repeated.

Note: *Never* assume or imply an answer, even if it was volunteered earlier in the interview.

Gives a Related Response That Doesn't Answer the Question

Sometimes the respondent answers with a related response but does not answer the question. More often than not, these types of answers are subtle, and the interviewer must be alert in noticing them. For example:

Interviewer: "Does he often not listen when people are speaking to him?"
Respondent: "Oh, he's very shy and never speaks to anyone."

This response indicates that the respondent thought you were asking about the child's "speaking" rather than about "listening."

Ask the question again, with the following emphasis:

Interviewer: "Does he often not *listen* when people are speaking to him?"

Gives an Unrelated Response

Sometimes, respondents go off on a tangent without answering the question. For example:

*Interviewer: "*Are there certain noises or sounds that the you can't keep yourself from *making*?"
*Respondent: "*Yes, I sometimes get ringing in my ears."

This answer is clearly not responsive to the question, which asks for a noise that the subject *makes*, not noises that they *hear*.

The correct response to this is to repeat the question, emphasizing the last part. If the subject continues to give a nonresponsive answer, however, you must accept it and continue with the rest of the questions. Remember, though, to make a note to discuss this with your supervisor.

Misunderstands the Time Frame of the Question

If the respondent provides a response that makes you think that he or she is not focusing on the correct time period for the question, reread the key part of the question or the entire question, emphasizing the time period. Use the timeline/whole-life chart, pointing to the relevant time period on the chart. This can be beneficial in getting the respondent to focus on the time period concerned.

For example (CD Q29A), asking a twelve-year-old subject, presently in sixth grade:

Interviewer: "In the last year, have you *threatened* someone with a weapon?"
Respondent: "Yes, when I was in the second grade."

They are obviously not focusing on the past year.

You can always add "in the past year" or "since [NAME EVENT/MONTH]" to any question if it seems the respondent is not cognizant of the correct time frame. The interviewer must include these phrases whenever they appear as part of the question.

Has Difficulty Recalling the Age of Onset of the Disorder

If the respondent cannot remember what age some sets of symptoms started, the interviewer should refer to the whole-life chart for a grade equivalent. Entering a "?" in the age response box on the computer will automatically come up with the probe "What grade was that?" If subjects still cannot pin down a specific age/grade, then the interviewer can use the whole-life event markers.

For example:

Interviewer: "Well, was it since he started high school?"

If a range of ages or grades is given, then interviewers should enter the youngest age/grade mentioned. Certain questions will give the option to enter "66 = Whole Life," should respondents say that they "have always been like that"; this should be accepted after minimal attempts to pin down whether it was prior to kindergarten/first grade.

Refuses to Answer a Question

If repeating the assurance of confidentiality doesn't reassure the respondent, allow him or her to exercise the right to do so. Enter "refused to answer" (code 7) without making any comments and make a note about the circumstances under which this occurred (ALT-N).

Misunderstands the Frequency Requirement

At times, a respondent gives an answer that indicates that they may not have understood the frequency requirement of the question.

For example (Eating Disorders Q12D):

Interviewer: "In the last year has there been a time when you had an eating binge at least *twice a week*?"
Respondent: "Yes, I did that around Christmas."

This could mean that the youth *only* did it once, rather than as often as twice a week. In such cases, repeat all or part of the question, emphasizing the frequency term (e.g., "… at least *twice* a week").

Misunderstands the Intensity of the Question

Sometimes the interviewer will need to probe because the respondent does not understand or ignores the intensity or severity that is asked about in the question. In such cases, the interviewer should repeat part or all of the question, emphasizing the word (usually in bold or underlined) that indicates the intensity.

For example (SpPh Q24):

Interviewer: "Have you been *so afraid* of seeing blood or cuts that you've tried not to look when someone has had a cut or there was blood?"
Respondent: "A little."

Does not Answer a Question

If the respondent does not answer, give him/her a few seconds to think and then to give an answer. If there is still no response, say, "Let me read the question again" and repeat the question, emphasizing key words. If no answer is given a second time, code as "refused" (7), make a note (ALT-N), and continue.

Bear in mind that, often, failing to provide a response can be an indication that the respondent finds the question very personal, and so the situation should be dealt with carefully.

Reluctance to Continue With the Interview

The offer of a quick five-minute break may help the respondent to be more inclined to continue the interview.

Does Not Give an Answer That Can Be Coded

In the unlikely event that the probing strategies do not work in obtaining a codeable response, enter the most reasonable response and make a note (ALT-N).

When an Adult Caretaker Says "I don't know"

The way to deal with "I don't know" responses from an adult caretaker depends on the situation.

1. *The respondent may need more time to think about the answer.*
   In such cases, the interviewer should wait silently and expectantly for an answer. It might also help

for the interviewer to tell the caretaker to take their time in answering.

2. *He or she might be reluctant to tell you something personal*.
If you think the respondent has said "I don't know" because he or she is reluctant to tell you private information, try to put him or her at ease by saying, "Remember that your answers are confidential," or "Remember, there are no right or wrong answers."

3. *He or she actually does not know the answer to the question or is unsure of the best answer*.
Often the caretaker truly doesn't know the answer to a question (e.g. a mother might not know whether her daughter has ever used marijuana and so is unable to answer). In such cases, it might help to ask the caretaker to answer to the best of his or her knowledge. However, if the interviewer finds that this situation constantly repeats itself, it would be best to accept the "don't know" answer (and enter code 9) to prevent alienating the respondent.

With answers like this, the interviewer must listen closely to the respondents to be sure they are really saying that they "don't know." Don't place all "don't know" answers in this category. Within a sentence, "don't know" could take on a different meaning.

For example:
"Oh! I don't know, probably not!" could actually mean "no" to the respondent.
"I don't know, he could have!" might mean "yes."
Don't guess what the respondent means. Instead, clarify by asking, "Is that a 'yes' or a 'no'?"

When a Youth Says "I don't know"

As the interview questions are mainly about the youths themselves, it is most likely that a "don't know" response is given as a way of actually avoiding having to answer. If you believe that this is the case, try and obtain a response by informing the youth that a "yes" or "no" answer is needed or by repeating the question.

Section 9
Interviewers within the Diagnostic Modules

General DISC Challenges for Interviewers

- Appropriate use of timelines (current year and whole life).
- Correct typing of information that will be inserted later in certain questions, e.g., timeline and PTSD traumatic event.
- Reading the questions at a steady pace and with the correct emphasis.
- Identifying the "active part" of the questions.
- Being sufficiently knowledgeable about the interview to know what to expect next.
- Knowing how to cope with non-standardized answers and to utilize proper probing techniques.
- Acting upon the interviewer instructions.
- Making interviewer notes when problems/issues arise in the interview (ALT-N).

Specific "Problem" Areas

- Onset/offset questions.
- Self-distress impairment questions.
- Long read-backs for "Chinese menu" diagnoses.
- Whole-life-screen questions.

Specific DISC Challenges for Interviewers by Diagnostic Modules

1. Social Phobia (SoPh)

Essential feature is fear of one or more *social situations*, in which the youth is the *focus of other people's attention, which might cause a feeling of embarrassment and humiliation*. Can lead to avoidance or endurance with dread.

Examples of Situations

(a) speaking out loud in class
(b) eating around other people
(c) being with people they don't know

For children, the disturbance must be for six months or longer and have caused distress.

Social-Phobia Challenges

(a) first diagnostic module of the DISC
(b) in this section, the interviewer sets the tone of the interview
(c) if a respondent endorses all three situations listed, some of the subsequent questions will be lengthy.

2. Separation Anxiety (SAD)

Essential feature is excessive *anxiety* concerning *separation* from home or from those to whom the youth is "attached" (usually a parent).

Examples of Symptoms

(a) feeling sick on school days or when child has to be away from attachment figure
(b) problems spending the night away from home or sleeping by self
(c) worries about harm to self or attachment figure
(d) begging attachment figure not to leave, etc.

"Separation anxiety" is developmentally appropriate for very young children and disturbance must last four weeks and cause distress or impairment.

Social-Phobia Challenges

(a) determining attachment figure
(b) some questions sound "babyish" to adolescents
(c) reading the "co-occurrence" question, e.g., Q13

3. Specific Phobia (SpPh)

Essential feature is *marked and persistent fear of a specific object or situation*. This can lead to avoidance or endurance with dread.

Examples of Situations

(a) animals (particularly dogs, birds, snakes)
(b) natural environment (dark, storms, heights, water)
(c) blood, injection, injury
(d) situations (bridges, tunnels, etc.)
(e) clowns, costumed characters

For children, the disturbance must be for six months or longer and cause distress.

Note: Transient fears are common in childhood.

Specific-Phobia Challenges

(a) identification of "worst" fear
(b) repetition of questions with second worst fear, if not meeting criteria for first worst fear

4. Panic Disorder (PAN)

Essential feature is the presence of *recurrent, unexpected panic attacks, followed by at least a month of worry* about having another attack or anxiety about the implications of having them.

Essential feature of a *panic attack* is discrete period of intense fear or discomfort that is accompanied by a number of somatic or cognitive symptoms (four symptoms). The attack has a sudden onset and builds to a peak rapidly (in ten minutes or less) and is often accompanied by a sense of impending doom and urge to escape.

Note: Panic attacks occur in the context of several different anxiety disorders. For panic disorder, the attacks must be unexpected.

Panic-Disorder Challenges

(a) reading the introductory questions with correct emphasis
(b) read-backs of "grouping" questions defining the attack (e.g. Q3V)

Note: If the diagnostic modules Generalized Anxiety Disorder, Specific Phobia, and Social Phobia are not administered in the interview, the C-DISC will score panic disorder as negative, even though positive panic symptoms may have been endorsed. This is due to the fact that the C-DISC cannot determine whether the panic symptoms are a "true" indication of panic disorder, or are experienced from separation-anxiety disorder, specific phobia, or social phobia.

5. Agoraphobia (AG)

Essential feature is *anxiety about, or avoidance of, 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*.

Examples of Situations

(a) going out alone
(b) being in a crowd
(c) traveling on public transportation
(d) being on bridges

Agoraphobia Challenges

(a) if all situations are endorsed, some of the later questions can be rather long

6. Generalized Anxiety Disorder (GAD)

Essential feature is an *excessive anxiety* and *worry* about a *number of different things*. These youth worry about things they have no reason to worry about or worry much more than they need to and find it difficult to keep from worrying. When they are anxious, they also have physical symptoms.

Examples of Worries

(a) anxiety about tests
(b) worrying about doing things well
(c) anxiety about health

Disturbance must be present on most days for six months and cause distress or impairment.

Generalized-Anxiety-Disorder Challenges

(a) reading the frequency question (e.g. Q6)
(b) additions for Overanxious Disorder (from the DSM III-R) (e.g. Q23-29)
(c) similarity among questions, so need to read with correct emphasis

7. Selective Mutism (SeMu)

The essential feature is a persistent *failure to speak in specific social situations* when speaking is expected (e.g., at school or with other children).

Disturbance must last for at least one month (not limited to the first month of school).

It cannot result solely from speech disorder or lack of comfort with a particular language (e.g., a Spanish-speaking child uncomfortable with English).

8. Obsessive-Compulsive Disorder (OCD)

Essential feature is the *recurrent obsessions or compulsions that are severe enough to be time consuming or cause marked distress or significant impairment*.

Obsessions

Persistent thoughts, ideas, impulses, or images that are experienced as being intrusive and inappropriate and cause marked distress or anxiety.

eg. Worry about being contaminated, having doubts, and aggressive or horrific images

Compulsions

Repetitive behaviors (e.g., washing, ordering, checking) or mental acts (e.g., counting, praying), the goal of which are to prevent or reduce anxiety or distress. Person feels driven to perform the act.

Obsessive-Compulsive Disorder Challenges

(a) Reading the long introductory parts

9. Post-Traumatic Stress Disorder (PTSD)

Essential feature is development of *symptoms after* experiencing or witnessing an extreme *traumatic event* (usually violent, involving threatened or actual death or serious injury).

Examples of Symptoms

(a) persistent "reexperiencing" of trauma (feels like "re-living" it, nightmares, intrusive recollections, distress when reminded of it)
(b) avoidance of reminders
(c) inability to recall event completely
(d) numbing of responsiveness
(e) increased arousal, irritability, jumpiness, etc.

Disturbance must last at least a month and cause distress or impairment

Post-Traumatic-Stress-Disorder Challenges

(a) Questions 9 and 10 - determining "traumatic event"
(b) wording for referring to the traumatic event in different questions

10. Eating Disorders (EAT)

Anorexia Nervosa

Individual refuses to maintain a normal weight, intensely fears becoming fat, has disturbed body image, and (for girls) amenorrhea**.**

Bulimia Nervosa

Individual has eating binges, uses compensatory methods to prevent weight gain, and his/her feelings about himself/herself are influenced by body shape/weight.

Binges and compensatory behaviors occur at least twice a week for three months.

Cannot have a diagnosis of bulimia if anorexia is present.

Eating-Disorder Challenges

(a) assessment of height and weight
(b) parallel onset questions for anorexia and bulimia

11. Elimination Disorders (ELIM DIS)

Enuresis

The essential feature is repeated voiding of urine into bed or clothes (day or night) after age five (or equivalent developmental level). Must occur at least twice a week for three months (in ICD-10, slightly less) and not be due to a medical condition.

Note: Nocturnal and diurnal are assessed separately in the DISC.

Encopresis

Essential feature is the repeated passage of feces into inappropriate places (e.g., clothing or floor) after age four (or equivalent developmental level). Must occur at least once month for three months (in ICD-10, for six months) and not be due to a medical condition.

Elimination-Disorder Challenges

(a) respondent and/or interviewer embarrassment
(b) onset questions are slightly different due to primary/secondary distinction

12. Tic Disorders (TIC)

Definition of "Tic"

A sudden, rapid, recurrent, non-rhythmic, stereotyped motor movement or vocalization, experienced as irresistible although it can be suppressed for a period.

Tourette's Disorder

Motor *and* vocal tics, for a year or longer.

Chronic Motor or Vocal Tic Disorder

Motor *or* vocal tics (not both), for a year or longer.

Transient Tic Disorder

Motor *and/or* vocal tics, for at least four weeks.

Tic-Disorders Challenges

(a) demonstrating motor tics
(b) subject and/or interviewer embarrassment
(c) open-ended descriptive questions

13. Pica (PICA)

Essential feature is the persistent eating of non-nutritive substances for at least one month. This must not be part of a culturally sanctioned practice.

Typical Pica Substances

Paint, plaster, string, cloth, dirt, clay, soil, leaves, or insects.

Note: Before eighteen to twenty-four months, mouthing and sometimes eating of non-nutritive substances is relatively common (and is not diagnostic).

Pica Challenges

(a) Strangeness of symptoms

14. Trichotillomania (TRI)

Essential feature is the *recurrent pulling out of one's own hair* that results in *noticeable hair loss*.

Trichotillomania Challenges

(a) Strangeness of the symptom

15. Mood Disorders

MAJOR DEPRESSION (MDD)

Essential feature is a distinct period of mood disturbance (at least two weeks) accompanied by associated physical and psychological symptoms. Mood can be depressed or irritable *or* there may be loss of interest or pleasure.

Examples of Associated Symptoms

(a) change in appetite, sleep, or energy level
(b) fatigue
(c) problems thinking
(d) thoughts of death or suicide

Disturbance must be present for most of the day, nearly every day, for two weeks or longer, and cause distress or impairment.

Major-Depression Challenges

(a) suicide and suicidal thoughts
(b) bereavement
(c) seasonal-affective questions

DYSTHYMIC DISORDER (DD)

Essential feature is *chronic mood disturbance* (at least a year for children) accompanied by associated physical and psychological symptoms. Mood can be depressed or irritable (loss of interest or pleasure *is not* a mood substitute).

Examples of Associated Symptoms

(a) tearfulness
(b) change in appetite and in sleep
(c) fatigue
(d) problems thinking
(e) hopelessness

Disturbance must be present for most of the day, more days than not, for one year or longer and cause distress or impairment.

Dysthymic-Disorder Challenges

(a) Repetitiveness of questions following MDD

MANIA/MANIC EPISODE

Essential feature is a distinct period of mood disturbance (of at least one week, or less if hospitalized or treated) accompanied by associated physical and psychological symptoms. Mood can be abnormally and persistently elevated and expansive *or* irritable.

Examples of Associated Symptoms

(a) decreased need for sleep
(b) talkativeness or pressured speech
(c) racing thoughts
(d) distractibility
(e) increase in activity or agitation

Mania Challenges

(a) affirmative answers to elevated mood
(b) age appropriateness for sexual interest optional question, Q12
(c) affirmative answers on regrets (spending, risk taking, sexual activity), Q13

Hypomania/Hypomanic Episode

Essential feature is a distinct period of mood disturbance (at least four days) of persistently elevated and expansive *or* irritable mood.

Examples of Associated Symptoms

Same as mania/manic episode. This is an unequivocal change in functioning that is uncharacteristic of the person when not symptomatic and is observable by others.

16. Schizophrenia (SCHIZ)

Essential features are a mixture of characteristic signs (both positive and negative symptoms) that have been present most of the time for at least a month, with some signs of disorder lasting at least six months.

Examples of Symptoms

(a) delusions (strange beliefs in which person misinterprets reality or bizarre belief)
(b) hallucinations (visual, auditory)
(c) disorganized thinking
(d) disorganized behavior

17. Attention-Deficit/Hyperactivity Disorder (ADHD)

Essential feature is a *persistent pattern of inattention or hyperactivity/impulsiveness* that is more frequent and severe than in other children of the same age (developmental level). Problems from behavior must have begun before age seven.

Note: Many behaviors are normal for young children.

ADHD is Divided into Three Subtypes

(a) ADHD Combined Type
(b) ADHD Inattentive Type
(c) ADHD Hyperactive-Impulsive Type

Attention-Deficit/Hyperactivity-Disorder Challenges

(a) lots of questions
(b) similarity among questions (including onset questions)
(c) many children deny obvious symptoms
(d) long “read-back” questions for very symptomatic subjects
(e) dual impairment sections (combined type)

18. Oppositional-Defiant Disorder (ODD)

Essential feature is a *pattern of negative, defiant, disobedient, and hostile behavior towards authority figures*, lasting at least six months.

Examples of Behaviors

(a) temper tantrums
(b) refusing to do what teachers/caretakers say
(c) breaking rules on purpose
(d) getting even with others
(e) being mean

Oppositional-Defiant-Disorder Challenges

(a) "brother/sister" rule-out questions
(b) Questions 10 and 11 (different structure)

19. Conduct Disorder (CD)

Essential feature is a repetitive and persistent pattern of behavior that violates the basic rights of others or major societal norms or rules.

Examples of Behaviors

(a) aggression towards other people or animals (fights, cruelty, or sexual assault)
(b) destruction of property (fires or vandalism)
(c) deceitfulness or theft (lying or shoplifting)
(d) violation of rules (truancy, staying out late, or running away)

Conduct-Disorder Challenges

(a) time frame of initial stems is "whole life"
(b) parents may genuinely not know answers
(c) respondent/interviewer embarrassment/discomfort
(d) "if approved for study" instructions
(e) asking questions in "non-leading" manner, exactly as written

20. Alcohol Abuse (ALC), Tobacco Use (TOB), Marijuana Use (MARJI), and Other Substances Abuse (OTHER SUBST)

ALCOHOL ABUSE

Causes failure to fulfill role/obligations, problems at school/work, use when dangerous, legal problems, social or interpersonal problems.

ALCOHOL DEPENDENCE

Cluster of cognitive, behavioral, and physiological symptoms, e.g., tolerance, withdrawal, compulsive use, failure to give up substance in face of psychological or physical problems, giving up of friends, and previous pleasurable activities, etc.

Alcohol-Abuse Challenges

(a) different thresholds used to enter abuse and dependence
(b) some confusing probes in "use" section (e.g. Q1F)
(c) some questions sound very similar
(d) confidentiality issue

TOBACCO

No specific challenges.

MARIJUANA

Marijuana-Use Challenges
(a) some confusing probes in “use” section
(b) some questions sound very similar
(c) confidentiality issue

OTHER SUBSTANCES

Other-Substances Challenges
(a) pronunciation of different substances
(b) how to classify substances
(c) some questions sound very similar
(d) withdrawal for different substances are assessed separately
(e) continued questioning of “angelic” youngsters

21. Whole-Life Section

This section has two routes of entry:
(a) negative in past year
(b) sub-threshold with a worst past

Whole-Life Module Challenges
(a) complicated skip structure
(b) vignettes don’t include all symptoms
(c) some vignettes are long
(d) some vignettes aren’t vignettes!

Problem Areas in Whole-Life Module
(a) separation anxiety
(b) psychosis
(c) may be reassessing past-year episode
(d) whole-life chart

Section 10
Supervisor Consultation

Urgent Clinical or Ethical Issues

Each project has its own protocol for addressing *urgent clinical issues* that might arise when administering the DISC-IV, such as when a respondent indicates the presence of suicidal ideation or ongoing child abuse. It is important to follow the established procedures in such an event. It is not appropriate for a lay interviewer to adopt a clinical approach to the respondent.

Supervisor Issues

Respondents with very limited intelligence or those who have severely intrusive symptoms might not understand the questions or might not be able to give meaningful answers. If this is severe enough to become apparent early in the interview, the interviewer should suspend questioning and consult a supervisor as to whether the interview should be terminated or not.

As you move through the interview, if there appears to be a lack of understanding on certain questions, say something like, “Well, let’s try another question,” and move on. Make a note (ALT-N) and inform your supervisor at the end of the interview about what happened.

APPENDIX 1

A. Historical Development of the DISC and Acknowledgments

DISC-1 (1981):

The impetus for developing the NIMH DISC was a 1979 initiative by the NIMH Division of Biometry and Epidemiology that called for an instrument similar to the Diagnostic Interview Schedule (DIS; Robins et al., 1981) to be used for large-scale surveys of children to determine the prevalence of mental disorders and related service needs for children in the United States. Its content and structure were originally outlined by a NIMH committee convened in 1980 that included Keith Conners, Ph.D., Barbara Herjanic, M.D., and Joaquim Puig-Antich, M.D. In 1981, Anthony Costello, M.D., and colleagues at Western Psychiatric Institute were awarded a contract to undertake extensive revision and further development of the DISC and to subject their instrument (DISC-1) to a field test in a clinical sample (Costello et al., 1984).

The design of the DISC-1 differed from its successors in that: (1) it was tied to DSM-III; (2) much of the interview was organized by domains (e.g., in the school section, symptoms of inattention, hyperactivity, oppositional behavior, and anxiety were assessed) so that an investigator could not easily choose to assess only certain diagnoses; (3) there were many more "write-ins" used to describe a symptom in the respondent's words, which were coded after the interview; and (4) the severity required to define a behavior or feeling as pathological was generally low.

DISC-R (1985):

Shaffer and colleagues at Columbia University/New York State Psychiatric Institute used DISC-1 field-trial data to modify questions that had been found to be unreliable in the DISC-1 field trials or that had implausibly high prevalence rates in an unreferred population. Extensive consultation was conducted with DISC users across the country about how best to reword these questions, and the changed questions were included in the DISC-R. Other changes from the DISC-1 included: (1) near-compatibility with DSM-III-R; (2) reductions in the number of open-ended questions; (3) deletion of rare disorders and disorders that required observation or special tests; and (4) the addition of a graphic "timeline" to identify important time frames.

Field trials were conducted with this instrument on a clinical population (Shaffer et al., 1993; Schwab-Stone et al., 1993; Piacentini et al., 1993), and findings from the field trial led to a modified DISC-2.1 that appeared in 1989. The DISC-2.1 differed from the DISC-R by: having a precise match to DSM-III-R criteria, a modular organization, and a briefer time frame (six months); substituting a psychosis screen for schizophrenia; adding questions to assess age of first episode, impairment associated with the current episode, precipitating stressors suggestive of an adjustment disorder, and treatment history; and, finally, revising questions that had been found unreliable in the DISC-R field trial.

As part of the MECA study, the DISC-2.1 was field-tested at three sites on a clinical sample of 97 children and adolescents, and a community sample of 278 children and adolescents age nine to seventeen (Jensen et al., 1995). The DISC-2.3 (1991) was a refinement of the DISC-2.1, developed by Shaffer and colleagues in collaboration with the Diagnostic Committee from the MECA Study. Once again, items that had been unreliable or overly prevalent in the DISC-2.1 field trial were revised, the psychosis-screening format reverted to questions about the cardinal symptoms of schizophrenia, and very long questions were shortened. A scoring algorithm was constructed that permitted a diagnosis to be established based either on symptom criteria alone or symptom criteria *and* a minimum level of diagnosis-specific impairment. A Spanish-language version of the DISC-2.3 was prepared and used at the Puerto Rico site of the MECA Study (Bravo et al., 1993), as well as for Spanish-speaking subjects at the Yale and Columbia sites.

The DISC-2.3 was the first DISC that was widely administered using computer-assist software. Two versions were available: the PC DISC, programmed at Emory University for use in the MECA study for

both the English and Spanish versions of the interview; and the C-DISC-2.3, programmed by Arthur Blouin, Ph.D., and colleagues at Ottawa Civic Hospital in Canada with assistance from the Division of Child Psychiatry at Columbia University/New York State Psychiatric Institute. At this point, no further development, maintenance, or technical support for the PC DISC program is envisioned.

B. The DISC Editorial Board

In 1992, NIMH appointed the NIMH DISC Editorial Board (DEB) to oversee further development of the DISC and provide an orderly process for implementing well-based proposals for modifying a standard version of the DISC. The board was originally comprised of members of the MECA Diagnostic Committee. New members who were users of the interview in large, NIH-supported studies were added later. The first charge of the DEB was to prepare the DISC-IV based on the data collected in the MECA study and in the DSM-IV field trials for the disruptive disorders (Lahey et al., 1994). This revised interview would address the new DSM-IV and ICD-10 research diagnostic criteria while retaining the criteria contained in DSM-III-R. The board continues to serve an advisory/review function and maintains responsibility for approving "official" versions of the instrument (based upon empirical studies), including approving the scoring algorithms, advising on the preparation of new DISC versions, authenticating translations, and so forth.

The DEB is chaired by David Shaffer, M.D.; Prudence Fisher is Executive Secretary. Board members are: Hector Bird, M.D.*;* Naomi Breslau, Ph.D.*;* Glorisa Canino, Ph.D.; Rand Conger, Ph.D.; Mina Dulcan, M.D.; Ann Garland, Ph.D.; Richard Hough, Ph.D.*;* Peter Jensen, M.D.; Benjamin Lahey, Ph.D.*;* Philip Leaf, Ph.D.*;* Christopher Lucas, M.D.*;* Debra Murphy, Ph.D.; William Narrow, M.D., M.P.H.*;* Darrel Regier, M.D., M.P.H.; Wendy Reich, Ph.D.; Anne Riley, Ph.D.; Robert Roberts, Ph.D.; Lee Robins, Ph.D.; Mary Schwab-Stone, M.D.; Gwendolyn Zahner, Ph.D.; and Government Project Director**:** Della Hann, Ph.D.

APPENDIX 2: SCORING OF THE "PAPER AND PENCIL" DISC

There are two ways in which the "paper-and-pencil" DISC can be scored. Both are complex, time-consuming, and error-prone procedures:

A. "Hand Scoring" Using the Scoring Logic

A comprehensive Scoring Logic Manual (available under separate cover) outlines which questions in the interview endorse specific criteria from DSM-IV. In order to score responses, the DISC user would need to identify combinations of corresponding questions for the criteria/diagnoses they wish to identify.

Example

Social Phobia Criterion A

"A marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others."

Past-year criterion would be identified by a "yes" response to:

Q1 or Q1A or Q2
AND Q3A or Q4 or Q5
AND Q6 or Q7
AND Q8

So, "yes" responses to Q1A, Q4, Q6, and Q8 would indicate that criterion A for social phobia is present for the *last year*.

By following these rules, the user can determine whether a diagnosis based on DSM-IV criteria has been met.

B. "Keypunching"

1. Production of an ASCII Data File

To produce an ASCII data file prior to using the SAS algorithms, the user would enter all question responses into a data-entry program, such as "Notepad" or "Data Entry" (SPSS). Each response would assume a code as outlined in the interview, i.e., "yes" = 2, "no" = 0, "Sometimes" = 1, etc. If a question was not asked, this would be recorded by entering nothing (i.e., the corresponding row/column location would be empty) or by a "period."

These entries would produce an ASCII data file (i.e., a table of coded responses in a row/column format). The card (row)/column location is defined in the paper DISC interview, so that each response would be located in a specified place within the ASCII file.

Format of the ASCII File

The ASCII file consists of 80 columns (not all are used).

NB: The ASCII file produced by the C-DISC has row numbers at the end of each row for clarity, therefore there are more than 80 columns.

The Column Entry Corresponds to the Paper NIMH DISC

- Columns 1-10 are ID
- Columns 11-12 indicate the diagnostic module (e.g., A2 corresponds to separation-anxiety disorder)
- Columns 13-15 display card numbers: these are row numbers within a particular diagnosis. Each diagnosis has a different number of rows/cards in which the responses will be displayed (e.g., separation anxiety has two rows of code - card numbers 01b, 02b; Pica has one row - card 01b).
- If the entire DISC interview is administered, there will be eighty-eight lines of data. Empty lines correspond to partial use of the DISC.

The table below indicates the number of lines per module:

Intro	**SoPh**	**SAD**	**SpPh**	**PAN**	**AG**	**GAD**	**SeMu**	**OCD**
2	1	2	2	3	2	2	1	2

PTSD	**EAT**	**ELIM Ds**	**TIC**	**PICA**	**TRI**	**MDD**	**Mania**	**Schiz**
2	3	3	2	2	2	5	2	8

ADHD	**ODD**	**CD**	**ALC**	**TOB**	**MARJ**	**Oth Sub**
4	2	6	3	2	2	5

Note: The whole-life module consists of one line per diagnosis, fifteen of which are covered in the whole-life section.

Explanation of the ASCII Data File

Once all responses have been entered in this way, the ASCII file would appear something like this:

88887777 A201b2220000000000

88887777 A202b

88887777 A301b0

- Thus “88887777” in the first 8 columns would correspond to the subject ID number.
- Columns 9 and 10 are then empty.
- Columns 11 and 12 indicate that the diagnostic module is A2 (separation-anxiety disorder).
- Columns 13, 14, and 15 indicate that this is the first card number/row in this diagnostic module.
- In row 1, the following codes indicate responses to Q1, Q1A, Q1B (all “yes,” i.e., code 2), and then Q3 to Q12 (all of which were coded as “no” responses, i.e., code “0”) of separation-anxiety module.
- The second line displays the ID number and diagnostic module. No responses are indicated following the skip rules in the interview. Further questioning in separation anxiety was skipped, and the interview continued into the next diagnosis, specific phobia.
- Line 3 indicates the responses for specific phobia Q1.

The number of rows/columns correlates to the number of modules included in the interview and the number of questions asked in each module, depending upon the skip pattern.

2. Analysis of the ASCII Data File

Once all responses have been entered into an ASCII file, analysis can be undertaken. Columbia University has developed algorithms (approved by the NIMH DISC Editorial Board) for scoring the NIMH DISC-IV by computer-driven rules that apply Boolean logic (i.e., “ands” and “ors”) to component questions. These are programmed in SAS. SAS algorithms have been prepared to

score the parent and youth versions of the DISC separately (“single-informant” algorithms) or to combine information from both the parent and the youth interviews. The “combined algorithms” use an “or” rule in which a criterion is considered present if reported by either informant. For example, if a diagnosis requires five criteria to be present, two could be reported by one informant and three by the other. Additional algorithms have been prepared to assess both symptomatic criteria plus a significant degree of impairment. In addition to the diagnostic algorithms, symptom and criterion scales have been created for most diagnoses. Cutoff points are being prepared from test data to indicate which scale scores best predict diagnosis. Algorithms are also in preparation to score the interview according to ICD-10 and the earlier DSM-IIIR diagnostic criteria.

Notes: SAS algorithms assume a carefully edited data set. Since there are no automated “data-cleaning” procedures, ASCII file preparation completed without the aid of the C-DISC program must be done with great care.

Based on specific study needs or data requirements, you may wish to compile your own algorithms using a statistics software program. However, this is a complicated and extensive challenge that is not recommended.

APPENDIX 3

A. Copyright Limitations for Changing the NIMH-DISC

The DISC interview is currently in the public domain and is not subject to copyright limitations. However, the name “NIMH DISC” can only be used to describe instruments reviewed and approved by the DEB. Users are discouraged from introducing modifications to the instrument. Structured interviews are known to be sensitive to context, order, and length, so that a change in structure may affect the instrument’s specificity and sensitivity and create a lack of compatibility with the methodological data obtained about the interview’s performance.

Should an investigator feel it imperative to modify the DISC to meet a particular research need, they should document these changes, describe them in any research publication, and add a caveat about non-compatibility with published methodology based on the standard NIMH DISC. The modified instrument should be labeled as such; it should not be called the NIMH DISC, but rather be given the name of the modifier. The purpose of these guidelines is to retain the reference to performance data developed on the original instrument.

B. Language Translations of the NIMH-DISC

In addition to the Spanish translation, other non-English versions of the NIMH DISC-IV are in preparation by various investigators. If an investigator intends to create a foreign-language translation of the “NIMH DISC,” their translation, along with a back-translation and algorithms, can be reviewed for a fee to cover the cost of the review. Because the NIMH DISC is in the public domain, one can prepare a translation without a back-translation and without obtaining an endorsement from the DEB. However, an unauthenticated, unendorsed translation should not be referred to as the NIMH DISC, and a published reference to such an instrument should state that the translation has not been verified, so that any comparisons with methodological findings on the NIMH DISC may be erroneous.

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