

Diagnostic Interview Schedule for Children: Child

Grade 12/Year 13

Fast Track Project Technical Report

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Citation

Instrument

Shaffer, D. and Fisher, P. (1997). *NIMH - Diagnostic Interview Schedule for Children: Child Informant*. New York: New York State Psychiatric Institute.

Shaffer, D., Fisher, P., Lucas, C., Comer, J. (2003). *Scoring Manual: Diagnostic Interview Schedule for Children (DISC-IV)*. New York: Columbia University.

Report

Godwin, J. (2010). *Diagnostic Interview Schedule for Children: Child (Technical Report)* [On-line]. Available: <http://www.fasttrackproject.org/>

Data Sources

Raw: c13i

Scored: cdc13

I. Scale Description

The NIMH Diagnostic Interview Schedule for Children (DISC) assesses DSM-IV psychiatric symptoms and diagnoses in children and adolescents aged 9 to 17 years. The DISC was designed to be given by lay interviewers for epidemiological research. Fast Track administered the measures using a laptop computer (Computerized DISC, or CDISC).

Item Responses

The DISC items are organized by diagnosis. Children are asked if they experienced specific symptoms related to a disorder during the past month or year. Follow-up questions are asked if a child reports a given symptom. The possible responses to most of the DISC questions are "No" (0), "Yes" (1), "Not Applicable" (8), or "Don't Know" (9). During the scoring process, the "Don't Know" responses are recoded as missing. The recoding depends on whether the DISC is administered to the child or parent.

Fast Track collected data on the following disorders in year 13/grade 12:

- Conduct Disorder
- Dysthymia
- Eating Disorders (Anorexia Nervosa and Bulimia)
- Generalized Anxiety
- Major Depression
- Oppositional Defiance (OD) Disorder
- Post Traumatic Stress Disorder (PTSD)

II. Report Sample

The explanatory analyses in this report are conducted on the Cohort 1 normative (n=387) and high-risk control samples (n=155, N=463 with overlap) in grade 12/year 13. One hundred twenty six students are missing the entire measure (27% of the sample), including 108 from the normative sample (28% of the sample) and 54 from the high-risk control sample (35% of the sample). The respondents who did not complete the measure include 19 students from Durham (15%), 43 from Nashville (41%), 27 from Penn State (22%), and 37 from Seattle (34%).

III. Scaling

The DISC group at Columbia University and New York State Psychiatric Institute (overseen by David Shaffer, M.D., Prudence Fisher, Ph.D., and John Piacentini, Ph.D) constructed the scoring programs that correspond to the DSM-IV. The variables names were changed to match the Fast Track format. The three types of summary scores are described below.

Criterion Counts

The scoring program combines the symptom (item) responses to determine whether a child meets a particular DSM-IV criterion. Multiple symptoms are often used to determine whether one criterion is satisfied. The criterion count variable describes the total number of criteria a child meets for each disorder.

Diagnosis Indicators

The individual symptom responses are also used to determine whether a child meets the DSM-IV specification for a diagnosis. The diagnosis variable equals 1 if the child meets the diagnosis criteria for a given disorder and 0 otherwise.

Impairment Indicators

The DISC also includes a series of questions designed to determine whether experiencing the symptoms associated with a particular diagnosis impaired the child's ability to participate in normal daily activities. Based on these questions, the scoring program creates three additional indicator variables for meeting the requirements of a diagnosis and experiencing a certain level of impairment. The levels include: experiencing intermediate or severe impairment in regards to at least 1 activity, experiencing intermediate or severe impairment in regards to at least 2 activities, and experiencing a severe impairment in regards to at least 1 activity. The diagnosis with impairment variable equals 1 if the subject meets the diagnosis criteria and experienced a certain level of impairment in his/her life.

IV. Differences between Groups

T-tests for equality of means were conducted between the high-risk control and the low-risk normative samples for the year and month criteria counts for each disorder.

Mean criterion counts differed at the 0.05 significance level for the high-risk control and low-risk normative samples for the following disorders:

Year: Conduct Disorder

Chi-Square tests of independence between the high-risk control and the low-risk normative sample were conducted for the year and month diagnosis and diagnosis plus impairment variables. The results for many of the tests, however, are questionable given the low frequency of diagnoses for many disorders. A test may not be valid if fewer than 5 respondents in a sample (normative or control) were expected to meet the diagnosis criteria (or the diagnosis plus impairment criteria). An * indicates that fewer than 5 respondents in both samples were expected to meet the criteria, while an ** indicates that fewer than 5 respondents in one sample were expected to meet the criteria.

The hypothesis of independence between risk category (high-risk control and normative) and diagnosis was never rejected at the 0.05 significance level for any disorder.

The table also includes the results for the indicators for diagnosis plus impairment.

Comparison of Means for Normative and Control for Continuous Score Variables							
Variable	Normative		Control		DF	t Value	Pr > t
	Mean	Std Dev	Mean	Std Dev			
Conduct Disorder: 6-month criterion count (cdc13ccm)	0.16	0.52	0.25	0.77	139	-1.11	0.27
Conduct Disorder: Year criterion count (cdc13ccy)	0.25	0.76	0.51	1.17	136	-2.02	0.05
Dysthymia: Month criterion count (cdc13dcm)	0.01	0.09	0.06	0.37	104	-1.37	0.17
Dysthymia: Year criterion count (cdc13dcy)	0.01	0.09	0.07	0.41	103	-1.49	0.14
Eating Disorder: Month criterion count (cdc13ecm)	0.24	0.46	0.18	0.43	199	1.21	0.23
Eating Disorder: Year criterion count (cdc13ecy)	0.17	0.41	0.18	0.41	187	-0.27	0.79
GA Disorder: Month criterion count (cdc13gcm)	0.11	0.59	0.18	0.79	150	-0.77	0.44
GA Disorder: Year criterion count (cdc13gcy)	0.17	0.77	0.30	0.89	167	-1.21	0.23
Major Depression: Month criterion count (cdc13rcm)	0.13	0.66	0.21	0.76	166	-0.98	0.33
Major Depression: Year criterion count (cdc13rcy)	0.26	1.03	0.35	1.01	191	-0.72	0.47
OD Disorder: Month criterion count (cdc13ocm)	0.20	0.68	0.31	0.81	164	-1.12	0.26
OD Disorder: Year criterion count (cdc13ocy)	0.30	0.80	0.47	1.02	156	-1.45	0.15
PTSD: Month criterion count (cdc13tcm)	0.38	1.33	0.39	1.20	209	-0.05	0.96
PTSD: Year criterion count (cdc13tcy)	0.59	1.99	0.78	2.02	187	-0.80	0.43

Chi Square Test for Normative and Control for Dichotomous Scored Variables								
Variable		Pct Diagnosed		DF	N	Chi Square Statistic	P-value	
		Normative	Control					
Conduct Disorder: 6-month Diagnosis	cdc13cdm	0.02	0.05	1	334	2.05	0.15	**
Conduct Disorder: Year Diagnosis	cdc13cdy	0.03	0.06	1	334	1.77	0.18	**
Conduct Disorder: 6-month impairment int1	cdc13cim	0.01	0.03	1	336	2.16	0.14	*
Conduct Disorder: Year impairment int1	cdc13ciy	0.01	0.04	1	335	2.47	0.12	*
Conduct Disorder: 6-month impairment int2	cdc13cjm	0.00	0.02	1	336	1.93	0.16	*
Conduct Disorder: Year impairment int2	cdc13cjy	0.00	0.02	1	335	1.92	0.17	*
Conduct Disorder: 6-month impairment severe	cdc13ckm	0.00	0.02	1	336	1.93	0.16	*
Conduct Disorder: Year impairment severe	cdc13cky	0.01	0.03	1	335	2.15	0.14	*
Dysthymia: Month diagnosis	cdc13ddm	0.00	0.00		332	-		
Dysthymia: Year diagnosis	cdc13ddy	0.00	0.00		332	-		
Dysthymia: Month impairment int1	cdc13dim	0.00	0.00		332	-		
Dysthymia: Year impairment int1	cdc13diy	0.00	0.00		332	-		
Dysthymia: Month impairment int2	cdc13djm	0.00	0.00		332	-		
Dysthymia: Year impairment int2	cdc13djy	0.00	0.00		332	-		
Dysthymia: Month impairment severe	cdc13dkm	0.00	0.00		332	-		
Dysthymia: Year impairment severe	cdc13dky	0.00	0.00		332	-		
Eating Disorder: Month diagnosis	cdc13edm	0.00	0.00		337	-		
Eating Disorder: Year diagnosis	cdc13edy	0.00	0.00		337	-		
Eating Disorder: Month impairment int1	cdc13eim	0.00	0.00		337	-		
Eating Disorder: Year impairment int1	cdc13eiy	0.00	0.00		337	-		
Eating Disorder: Month impairment int2	cdc13ejm	0.00	0.00		337	-		
Eating Disorder: Year impairment int2	cdc13ejy	0.00	0.00		337	-		
Eating Disorder: Month impairment severe	cdc13ekm	0.00	0.00		337	-		
Eating Disorder: Year impairment severe	cdc13eky	0.00	0.00		337	-		
GA Disorder: Month Diagnosis	cdc13gdm	0.00	0.01	1	337	2.34	0.13	*
GA Disorder: Year Diagnosis	cdc13gdy	0.00	0.01	1	337	0.38	0.54	*
GA Disorder: Month impairment int1	cdc13gim	0.00	0.01	1	337	2.34	0.13	*
GA Disorder: Year impairment int1	cdc13giy	0.00	0.01	1	337	0.38	0.54	*
GA Disorder: Month impairment int2	cdc13gjm	0.00	0.01	1	337	2.34	0.13	*
GA Disorder: Year impairment int2	cdc13gjy	0.00	0.01	1	337	0.38	0.54	*
GA Disorder: Month impairment severe	cdc13gkm	0.00	0.01	1	337	2.34	0.13	*
GA Disorder: Year impairment severe	cdc13gky	0.00	0.01	1	337	0.38	0.54	*
Major Depression: Month Diagnosis	cdc13rdm	0.01	0.01	1	332	0.01	0.90	*
Major Depression: Year Diagnosis	cdc13rdy	0.02	0.03	1	332	0.21	0.65	**
Major Depression: Month impairment int1	cdc13rim	0.01	0.01	1	332	0.01	0.90	*
Major Depression: Year impairment int1	cdc13riy	0.02	0.03	1	332	0.21	0.65	**
Major Depression: Month impairment int2	cdc13rjm	0.01	0.01	1	332	0.01	0.90	*
Major Depression: Year impairment int2	cdc13rjy	0.02	0.03	1	332	0.55	0.46	*
Major Depression: Month impairment severe	cdc13rkm	0.00	0.00	1	332	0.43	0.51	*
Major Depression: Year impairment severe	cdc13rky	0.02	0.01	1	332	0.25	0.62	*
OD Disorder: Month Diagnosis	cdc13odm	0.01	0.02	1	337	0.24	0.62	*
OD Disorder: Year Diagnosis	cdc13ody	0.01	0.03	1	337	1.17	0.28	*
OD Disorder: Month impairment int1	cdc13oim	0.01	0.02	1	337	0.77	0.38	*
OD Disorder: Year impairment int1	cdc13oiy	0.01	0.03	1	337	2.18	0.14	*
OD Disorder: Month impairment int2	cdc13ojm	0.01	0.02	1	337	0.77	0.38	*
OD Disorder: Year impairment int2	cdc13ojy	0.01	0.02	1	337	0.77	0.38	*
OD Disorder: Month impairment severe	cdc13okm	0.01	0.01	1	337	0.02	0.90	*
OD Disorder: Year impairment severe	cdc13oky	0.01	0.01	1	337	0.02	0.90	*
PTSD: Month diagnosis	cdc13tdm	0.02	0.00	1	336	2.18	0.14	*
PTSD: Year diagnosis	cdc13tdy	0.02	0.01	1	336	0.52	0.47	*

PTSD: Month impairment int1	cdc13tim	0.02	0.00	1	337	2.17	0.14	*
PTSD: Year impairment int1	cdc13tiy	0.02	0.01	1	337	0.52	0.47	*
PTSD: Month impairment int2	cdc13tjm	0.02	0.00	1	337	1.73	0.19	*
PTSD: Year impairment int2	cdc13tjy	0.02	0.01	1	337	0.24	0.62	*
PTSD: Month impairment severe	cdc13tkm	0.02	0.00	1	337	1.73	0.19	*
PTSD: Year impairment severe	cdc13tky	0.02	0.00	1	337	1.73	0.19	*

V. Recommendations for Use

It is recommended that the analyst use categorical-type analyses when examining diagnosis and diagnosis plus impairment variables and count-type analyses for criterion count variables. There have been numerous studies using the CDISC that the analyst can refer to for comparison of results and method used.

Analysts should refer to the numerous previous studies that have used the CDISC for examples of methods used to analyze these data.