

## Young Adult Diagnostic Interview Schedule for Children: Youth

Year 15

### 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). Young Adult Diagnostic Interview Schedule for Children: Youth (Technical Report) [On-line]. Available: <http://www.fasttrackproject.org/>

#### Data Sources

Raw: c14br

Scored: yad15

#### **I. Scale Description**

The NIMH Young Adult Diagnostic Interview Schedule for Children (YADISC-IV) assesses DSM-IV psychiatric symptoms and diagnoses in young adults up to age 24 and older adolescents who live without a parent or guardian. 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 YADISC).

##### *Item Responses*

The DISC items are organized by diagnosis. Youth are asked if they experienced specific symptoms related to a disorder during the past month or year. For substance abuse and dependence disorders, diagnoses are based only on behavior in past 12 months, past month behavior is not assessed separately

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 14:

- Attention Deficit/Hyperactivity Disorder (ADHD)
- Conduct Disorder
- Dysthymia
- Eating Disorders (Anorexia Nervosa and Bulimia)

- Generalized Anxiety
  - Major Depression
  - Oppositional Defiance (OD) Disorder
  - Post Traumatic Stress Disorder (PTSD)
- 
- Alcohol Abuse and Dependence
  - Nicotine Dependence
  - Marijuana Abuse and Dependence
  - Other Substances Abuse and Dependence

Alcohol and substance abuse and dependence diagnoses are mutually exclusive. A person is diagnosed with dependence if he/she meets 3 or more symptoms of dependence. A person can only be diagnosed with abuse if he/she does not meet the criteria for dependence and also exhibits 1 or more symptoms of abuse.

## **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 year 14. One hundred forty students are missing the entire measure (30% of the sample), including 115 from the normative sample (30% of the sample) and 59 from the high-risk control sample (38% of the sample). The respondents who did not complete the measure include 44 youth from Durham (35%), 44 from Nashville (42%), 21 from Penn State (17%), and 31 from Seattle (28%).

## **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 variable names were changed to match the Fast Track format. The three types of summary scores are described below.

### *Criterion and Symptom 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. For alcohol and substance abuse/dependence diagnoses, the symptom counts are combined into 1 variable.

### *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 youth'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 Nicotine Dependence. Mean symptom counts differed at the 0.05 significance level for the high-risk control and low-risk normative samples for the following disorders:

Last Month: General Anxiety

Last Year: Bulimia  
General Anxiety  
Major Depression  
Oppositional Defiance  
Other Substance Abuse  
Other Substance Dependence

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 rejected at the 0.05 significance level for the following disorders:

Last Month: Major Depression\*  
Oppositional Defiance\*

Last Year: Antisocial Personality Disorder  
Major Depression\*  
Oppositional Defiance\*  
Marijuana Dependence\*

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

Comparison of Means for Normative and Control for Continuous Scored Variables								
Variable		Normative		Control		DF	t Value	Pr >  t
		Mean	Std Dev	Mean	Std Dev			
ADHD-I - Criterion Count Last Mo Yr15	yad15icm	0.29	0.99	0.37	0.89	191	-0.66	0.07
ADHD-H - Criterion Count Last Yr Yr15	yad15hcm	0.34	0.88	0.66	1.49	120	-1.89	0.39
ADHD-Combined - Criterion Count Last Yr Yr15	yad15zcm	0.63	1.62	1.02	2.03	143	-1.64	0.44
CD -Criterion Count Last Mo Yr15	yad15ccm	0.04	0.22	0.21	0.86	96.1	-1.83	0.76
Dysthymia - Criterion Count Last Mo Yr15	yad15dcm	0.00	0.00	0.07	0.54	54	-1.00	0.79
Anorexia - Criterion Count Last Mo Yr15	yad15xcm	0.65	0.48	0.88	0.36	225	-4.70	0.87
Bulimia - Criterion Count Last Mo Yr15	yad15bcm	0.04	0.19	0.01	0.10	286	1.52	0.87
Gen Anxiety - Criterion Count Last Mo Yr15	yad15gcm	0.13	0.69	0.15	0.80	151	-0.22	0.05
Major Dep - Criterion Count Last Mo Yr15	yad15rcm	0.00	0.00	0.45	1.23	54	-2.74	0.08
ODD -Criterion Count Last Mo Yr15	yad15ocm	0.08	0.38	0.25	0.79	111	-1.94	0.07
PTSD - Criterion Count Last Mo Yr15	yad15tcm	0.27	1.01	0.48	1.40	134	-1.34	0.13
ADHD-I - Criterion Count Last Yr Yr15	yad15icy	0.41	1.22	0.54	1.09	192	-0.90	0.09
ADHD-H - Criterion Count Last Yr Yr15	yad15hcy	0.47	1.02	0.76	1.58	125	-1.65	0.13

ADHD-Combined - Criterion Count Last Yr Yr15	yad15zcy	0.88	1.96	1.30	2.28	152	-1.55	0.14
CD -Criterion Count Last Yr Yr15	yad15ccy	0.07	0.32	0.37	1.18	96.7	-2.37	0.27
Dysthymia - Criterion Count Last Yr Yr15	yad15dcy	0.00	0.00	0.07	0.54	54	-1.00	0.37
Anorexia - Criterion Count Last Yr Yr15	yad15xcy	0.46	0.53	0.73	0.49	189	-4.36	0.42
Bulimia - Criterion Count Last Yr Yr15	yad15bcy	0.06	0.24	0.02	0.15	265	1.68	0.03
Gen Anxiety - Criterion Count Last Yr Yr15	yad15gcy	0.19	0.79	0.28	0.99	142	-0.84	0.04
Major Dep - Criterion Count Last Yr Yr15	yad15rcy	0.11	0.71	0.71	1.80	62.5	-2.38	0.02
ODD -Criterion Count Last Yr Yr15	yad15ocy	0.16	0.56	0.35	0.95	119	-1.83	0.03
PTSD - Criterion Count Last Yr Yr15	yad15tcy	0.53	1.49	0.70	1.91	141	-0.77	0.18
Alcohol Abuse - Criterion Count yr15	yad15aac	0.12	0.42	0.14	0.54	145	-0.27	0.23
Alcohol Dependence - Criterion Count yr15	yad15adc	0.23	0.83	0.21	0.76	192	0.17	0.51
Nicotine Dependence - Criterion Count yr15	yad15ndc	0.40	0.98	0.66	1.26	144	-1.79	0.54
Marijuana Abuse - Criterion Count yr15	yad15mac	0.09	0.34	0.18	0.53	129	-1.54	0.14
Marijuana Dependence - Criterion Count yr15	yad15mdc	0.20	0.76	0.38	1.04	137	-1.51	0.16
Other Substance Abuse - Criterion Count yr15	yad15sac	0.02	0.16	0.06	0.38	109	-1.12	0.00
Other Substance Dependence - Criterion Count yr15	yad15sdc	0.07	0.64	0.15	0.81	146	-0.81	0.00
ADHD - Symptom Count Yr15	yad15zsy	2.13	3.09	3.01	3.63	151	-2.06	0.09
ADHD-I - Symptom Count Yr15	yad15isy	1.23	2.00	1.85	2.35	151	-2.22	0.11
ADHD-H - Symptom Count Yr15	yad15hsy	0.90	1.46	1.16	1.92	139	-1.19	0.14
Eating Disorder - Symptom Count Yr15	yad15esy	0.40	0.61	0.45	0.71	157	-0.62	0.19
Gen Anxiety - Symptom Count Yr15	yad15gsy	1.49	2.01	1.87	2.23	155	-1.41	0.83
Major Dep - Symptom Count Yr15	yad15rsy	2.01	2.85	3.96	4.50	76.2	-2.94	0.82
ODD -Symptom Count Yr15	yad15osy	1.59	2.00	2.03	2.27	154	-1.61	0.16
PTSD - Symptom Count Yr15	yad15tsy	0.72	1.89	1.11	2.64	138	-1.31	0.19
Alcohol - Symptom count yr15	yad15asy	0.55	1.53	0.51	1.46	187	0.22	0.09
Nicotine - Symptom count yr15	yad15nsy	0.68	1.51	0.96	1.77	154	-1.32	0.13
Marijuana - Symptom count yr15	yad15msy	0.38	1.40	0.70	1.82	145	-1.51	0.15
Other Substance - Symptom count yr15	yad15ssy	0.11	1.03	0.33	1.68	127	-1.19	0.24

Variable		Percent Diagnosed		DF	N	Chi Square Stat	P-value	
		Normative	Control					
Any ADHD -Diagnosis last mo - Y15	yad15ydm	0.00	0.02	1	313	2.03	0.15	*
ADHD-I - Diagnosis last mo - Y15	yad15idm	0.00	0.00		313			
ADHD-H - Diagnosis last mo - Y15	yad15hdm	0.00	0.02	1	313	2.03	0.15	*
ADHD-Combined - Diagnosis last mo - Y15	yad15zdm	0.00	0.00		313			
CD -Diagnosis last mo - Y15	yad15cdm	0.00	0.00		311			
Dysthymia - Diagnosis last mo - Y15	yad15ddm	0.00	0.02	1	165	2.01	0.16	*
Anorexia - Diagnosis last mo - Y15	yad15xdm	0.00	0.00		314			
Bulimia - Diagnosis last mo - Y15	yad15bdm	0.00	0.00		314			
Gen Anxiety - Diagnosis last mo - Y15	yad15gdm	0.00	0.01	1	313	0.41	0.52	*
Major Dep - Diagnosis last mo - Y15	yad15rdm	0.00	0.04	1	164	4.12	0.04	*
ODD -Diagnosis last mo - Y15	yad15odm	0.00	0.03	1	315	7.23	0.01	*
PTSD - Diagnosis last mo - Y15	yad15tdm	0.00	0.01	1	315	2.39	0.12	*
Any ADHD -Diagnosis last yr - Y15	yad15ydy	0.01	0.02	1	313	0.83	0.36	*

ADHD-I - Diagnosis last yr - Y15	yad15idy	0.00	0.00		313			
ADHD-H - Diagnosis last yr - Y15	yad15hdy	0.00	0.02	1	313	2.03	0.15	*
ADHD-Combined - Diagnosis last yr - Y15	yad15zdy	0.00	0.00	1	313	0.42	0.52	*
CD -Diagnosis last yr - Y15	yad15cdy	0.00	0.00		311			
Antisocial Personality Disorder - Diagnosis last yr - Y15	yad15pdy	0.07	0.18	1	317	8.80	0.00	
Dysthymia - Diagnosis last yr - Y15	yad15ddy	0.00	0.02	1	165	2.01	0.16	*
Anorexia - Diagnosis last yr - Y15	yad15xdy	0.00	0.00		314			
Bulimia - Diagnosis last yr - Y15	yad15bdy	0.00	0.00		314			
Gen Anxiety - Diagnosis last yr - Y15	yad15gdy	0.00	0.02	1	313	2.03	0.15	*
Major Dep - Diagnosis last yr - Y15	yad15rdy	0.01	0.09	1	165	7.00	0.01	*
ODD -Diagnosis last yr - Y15	yad15ody	0.00	0.03	1	315	4.03	0.04	*
PTSD - Diagnosis last yr - Y15	yad15tdy	0.00	0.01	1	315	0.41	0.52	*
Alcohol Abuse - Diagnosis yr15	yad15aad	0.07	0.08	1	312	0.10	0.75	*
Alcohol Dependence - Diagnosis yr15	yad15add	0.04	0.03	1	320	0.03	0.86	**
Nicotine Dependence - Diagnosis yr15	yad15ndd	0.06	0.09	1	301	1.00	0.32	**
Marijuana Abuse - Diagnosis yr15	yad15mad	0.05	0.08	1	314	0.85	0.36	*
Marijuana Dependence - Diagnosis yr15	yad15mdd	0.03	0.07	1	320	3.79	0.05	*
Other Substance Abuse - Diagnosis yr15	yad15sad	0.00	0.01	1	319	2.40	0.12	*
Other Substance Dependence - Diagnosis yr15	yad15sdd	0.01	0.02	1	320	0.26	0.61	*
ADHD - At least 1 intermediate impairment last mo yr15	yad15yim	0.00	0.02	1	313	2.03	0.15	*
CD -At least 1 intermediate impairment last mo yr15	yad15cim	0.00	0.00		322			
Dysthymia - At least 1 intermediate impairment last mo yr15	yad15dim	0.00	0.02	1	165	2.01	0.16	*
Eating Disorder - At least 1 intermediate impairment last mo yr15	yad15eim	0.00	0.00		323			
Gen Anxiety - At least 1 intermediate impairment last mo yr15	yad15gim	0.00	0.00	1	322	0.42	0.52	*
Major Dep - At least 1 intermediate impairment last mo yr15	yad15rim	0.00	0.00		163			
ODD -At least 1 intermediate impairment last mo yr15	yad15oim	0.00	0.02	1	323	4.76	0.03	*
PTSD - At least 1 intermediate impairment last mo yr15	yad15tim	0.00	0.01	1	323	2.37	0.12	*
ADHD - At least 1 intermediate impairment last yr yr15	yad15yiy	0.01	0.02	1	313	0.83	0.36	*
CD -At least 1 intermediate impairment last yr yr15	yad15ciy	0.00	0.00		322			
Dysthymia - At least 1 intermediate impairment last yr yr15	yad15diy	0.00	0.02	1	165	2.01	0.16	*
Eating Disorder - At least 1 intermediate impairment last yr yr15	yad15eiy	0.00	0.00		323			
Gen Anxiety - At least 1 intermediate impairment last yr yr15	yad15giy	0.00	0.01	1	322	0.41	0.52	*
Major Dep - At least 1 intermediate impairment last yr yr15	yad15riy	0.01	0.06	1	164	3.29	0.07	*
ODD -At least 1 intermediate impairment last yr yr15	yad15oiy	0.00	0.02	1	323	1.98	0.16	*
PTSD - At least 1 intermediate impairment last yr yr15	yad15tiy	0.00	0.01	1	323	2.37	0.12	*
Alcohol Abuse - At least 1 intermediate impairment yr15	yad15aai	0.01	0.01	1	314	0.04	0.85	*
Alcohol Dependence - At least 1 intermediate impairment yr15	yad15adi	0.01	0.01	1	320	0.02	0.89	*
Nicotine Dependence - At least 1 intermediate impairment yr15	yad15ndi	0.02	0.01	1	316	0.23	0.63	*
Marijuana Abuse - At least 1 intermediate impairment yr15	yad15mai	0.01	0.02	1	318	0.81	0.37	*

Marijuana Dependence - At least 1 intermediate impairment yr15	yad15mdi	0.01	0.03	1	317	2.37	0.12	*
Other Substance Abuse - At least 1 intermediate impairment yr15	yad15sai	0.00	0.01	1	320	2.38	0.12	*
Other Substance Dependence - At least 1 intermediate impairment yr15	yad15sdi	0.01	0.01	1	320	0.02	0.89	*
ADHD - At least 2 intermediate impairment last mo yr15	yad15yjm	0.00	0.00	1	313	0.42	0.52	*
CD -At least 2 intermediate impairment last mo yr15	yad15cjm	0.00	0.00		323			
Dysthymia - At least 2 intermediate impairment last mo yr15	yad15djm	0.00	0.02	1	165	2.01	0.16	*
Eating Disorder - At least 2 intermediate impairment last mo yr15	yad15ejm	0.00	0.00		323			
Gen Anxiety - At least 2 intermediate impairment last mo yr15	yad15gjm	0.00	0.00		323			
Major Dep - At least 2 intermediate impairment last mo yr15	yad15rjm	0.00	0.00		164			
ODD -At least 2 intermediate impairment last mo yr15	yad15ojm	0.00	0.02	1	323	4.76	0.03	*
PTSD - At least 2 intermediate impairment last mo yr15	yad15tjm	0.00	0.01	1	323	2.37	0.12	*
ADHD - At least 2 intermediate impairment last yr yr15	yad15y jy	0.01	0.00	1	313	0.84	0.36	*
CD -At least 2 intermediate impairment last yr yr15	yad15c jy	0.00	0.00		323			
Dysthymia - At least 2 intermediate impairment last yr yr15	yad15d jy	0.00	0.02	1	165	2.01	0.16	*
Eating Disorder - At least 2 intermediate impairment last yr yr15	yad15e jy	0.00	0.00		323			
Gen Anxiety - At least 2 intermediate impairment last yr yr15	yad15g jy	0.00	0.01	1	323	2.37	0.12	*
Major Dep - At least 2 intermediate impairment last yr yr15	yad15r jy	0.01	0.04	1	164	1.58	0.21	*
ODD -At least 2 intermediate impairment last yr yr15	yad15o jy	0.00	0.02	1	323	1.98	0.16	*
PTSD - At least 2 intermediate impairment last yr yr15	yad15t jy	0.00	0.01	1	323	2.37	0.12	*
Alcohol Abuse - At least 2 intermediate impairment yr15	yad15a aj	0.00	0.01	1	320	2.38	0.12	*
Alcohol Dependence - At least 2 intermediate impairment yr15	yad15a dj	0.00	0.00	1	320	0.42	0.52	*
Nicotine Dependence - At least 2 intermediate impairment yr15	yad15n dj	0.01	0.00	1	319	0.85	0.36	*
Marijuana Abuse - At least 2 intermediate impairment yr15	yad15m aj	0.00	0.01	1	318	2.39	0.12	*
Marijuana Dependence - At least 2 intermediate impairment yr15	yad15m dj	0.00	0.00	1	320	0.42	0.52	*
Other Substance Abuse - At least 2 intermediate impairment yr15	yad15s aj	0.00	0.01	1	320	2.38	0.12	*
Other Substance Dependence - At least 2 intermediate impairment yr15	yad15s dj	0.01	0.01	1	320	0.02	0.89	*
ADHD - At least 1 severe impairment last mo yr15	yad15y km	0.00	0.01	1	313	2.41	0.12	*
CD -At least 1 severe impairment last mo yr15	yad15c km	0.00	0.00		322			
Dysthymia - At least 1 severe impairment last mo yr15	yad15d km	0.00	0.02	1	165	2.01	0.16	*
Eating Disorder - At least 1 severe impairment last mo yr15	yad15e km	0.00	0.00		323			
Gen Anxiety - At least 1 severe impairment last mo yr15	yad15g km	0.00	0.00		322			
Major Dep - At least 1 severe impairment last mo yr15	yad15r km	0.00	0.00		163			
ODD -At least 1 severe impairment last mo yr15	yad15o km	0.00	0.02	1	323	4.76	0.03	*
PTSD - At least 1 severe impairment last mo yr15	yad15t km	0.00	0.01	1	323	2.37	0.12	*
ADHD - At least 1 severe impairment last yr yr15	yad15y ky	0.00	0.01	1	313	0.41	0.52	*
CD -At least 1 severe impairment last yr yr15	yad15c ky	0.00	0.00		322			
Dysthymia - At least 1 severe impairment last yr yr15	yad15d ky	0.00	0.02	1	165	2.01	0.16	*
Eating Disorder - At least 1 severe impairment last yr yr15	yad15e ky	0.00	0.00		323			

Gen Anxiety - At least 1 severe impairment last yr yr15	yad15gky	0.00	0.01	1	322	2.40	0.12	*
Major Dep - At least 1 severe impairment last yr yr15	yad15rky	0.01	0.04	1	163	1.62	0.20	*
ODD -At least 1 severe impairment last yr yr15	yad15oky	0.00	0.02	1	323	1.98	0.16	*
PTSD - At least 1 severe impairment last yr yr15	yad15tky	0.00	0.01	1	323	2.37	0.12	*
Alcohol Abuse - At least 1 severe impairment yr15	yad15aak	0.01	0.00	1	314	0.83	0.36	*
Alcohol Dependence - At least 1 severe impairment yr15	yad15adk	0.00	0.01	1	320	2.38	0.12	*
Nicotine Dependence - At least 1 severe impairment yr15	yad15ndk	0.01	0.00	1	316	1.28	0.26	*
Marijuana Abuse - At least 1 severe impairment yr15	yad15mak	0.00	0.01	1	318	2.39	0.12	*
Marijuana Dependence - At least 1 severe impairment yr15	yad15mdk	0.00	0.00	1	317	0.41	0.52	*
Other Substance Abuse - At least 1 severe impairment yr15	yad15sak	0.00	0.00		320			
Other Substance Dependence - At least 1 severe impairment yr15	yad15sdk	0.00	0.01	1	320	0.40	0.53	*

## **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.