

Young Adult Diagnostic Interview Schedule for Children: Youth

Grade 13/Year 14

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: c13br

Scored: yad14

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:

- 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 were conducted on the Cohort 1 normative (n=387) and high-risk control samples (n=155, N=463 with overlap) in year 14. One hundred thirty-four students are missing the entire measure (29% of the sample), including 113 from the normative sample (29% of the sample) and 54 from the high-risk control sample (35% of the sample). The respondents who did not complete the measure include 21 from Durham (17%), 47 from Nashville (45%), 30 from Penn State (24%), and 36 from Seattle (33%).

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. 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 indicator equals 1 if the child meets the diagnostic 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.

The high-risk control and low-risk normative samples differed significantly at the 0.05 level on their mean criterion count for Nicotine Dependence. The high-risk control sample endorsed significantly more nicotine dependence criteria than did the low-risk normative sample. The high-risk control and low-risk normative samples also differed significantly at the 0.05 level on their mean symptom counts for nicotine use. The high-risk control sample endorsed significantly more nicotine symptoms than did the low-risk normative sample.

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			
Alcohol Abuse - Criterion Count Yr14	yad14aac	0.12	0.44	0.19	0.60	152	-0.97	0.33
Alcohol Dependence - Criterion Count Yr14	yad14adc	0.28	0.90	0.35	0.98	178	-0.55	0.58
Alcohol - Symptom count Yr14	yad14asy	0.67	1.73	0.82	1.94	173	-0.69	0.49
Nicotine Dependence - Criterion Count Yr14	yad14ndc	0.49	1.09	1.06	1.53	147	-3.37	0.00
Nicotine - Symptom count Yr14	yad14nsy	0.81	1.58	1.58	2.12	151	-3.26	0.00
Marijuana Abuse - Criterion Count Yr14	yad14mac	0.14	0.46	0.21	0.59	156	-1.07	0.29
Marijuana Dependence - Criterion Count Yr14	yad14mdc	0.32	0.88	0.48	1.11	159	-1.22	0.23
Marijuana - Symptom count Yr14	yad14msy	0.56	1.56	0.84	2.06	153	-1.22	0.22
Other Substance Abuse - Criterion Count Yr14	yad14sac	0.03	0.25	0.07	0.41	134	-0.98	0.33
Other Substance Dependence - Criterion Count Yr14	yad14sdc	0.04	0.36	0.14	0.82	118	-1.21	0.23
Other Substance - Symptom count Yr14	yad14ssy	0.08	0.61	0.28	1.67	112	-1.16	0.25

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 nicotine dependence, marijuana dependence with at least one intermediate impairment criterion met, and other substance dependence. For all of these diagnoses, the high-risk control sample had significantly more participants meeting criteria than did the low-risk normative sample.

Chi Square Test for Normative and Control for Dichotomous Scored Variables								
Variable		Percent Diagnosed		DF	N	Chi Square Statistic	P-value	
		Normative	Control					
Alcohol Abuse - Diagnosis yr14	yad14aad	0.07	0.07	1	323	0.01	0.93	
Alcohol Abuse - At least 1 intermediate impairment yr14	yad14aai	0.01	0.04	1	321	3.60	0.06	**
Alcohol Abuse - At least 2 intermediate impairment yr14	yad14aaj	0.00	0.00		320			*
Alcohol Abuse - At least 1 severe impairment yr14	yad14aak	0.00	0.00		320			*
Alcohol Dependence - Diagnosis yr14	yad14add	0.05	0.08	1	327	1.19	0.28	
Alcohol Dependence - At least 1 intermediate impairment yr14	yad14adi	0.02	0.04	1	321	1.36	0.24	
Alcohol Dependence - At least 2 intermediate impairment yr14	yad14adj	0.01	0.03	1	321	1.01	0.31	**
Alcohol Dependence - At least 1 severe impairment yr14	yad14adk	0.01	0.02	1	321	0.67	0.41	**

Nicotine Dependence - Diagnosis yr14	yad14ndd	0.08	0.19	1	307	7.07	0.01	
Nicotine Dependence - At least 1 intermediate impairment yr14	yad14ndi	0.04	0.05	1	314	0.36	0.55	
Nicotine Dependence - At least 2 intermediate impairment yr14	yad14ndj	0.00	0.01	1	320	2.21	0.14	*
Nicotine Dependence - At least 1 severe impairment yr14	yad14ndk	0.02	0.01	1	316	0.30	0.58	**
Marijuana Abuse - Diagnosis yr14	yad14mad	0.05	0.02	1	327	1.89	0.17	
Marijuana Abuse - At least 1 intermediate impairment yr14	yad14mai	0.01	0.01	1	320	0.07	0.80	*
Marijuana Abuse - At least 2 intermediate impairment yr14	yad14maj	0.00	0.01	1	321	2.22	0.14	*
Marijuana Abuse - At least 1 severe impairment yr14	yad14mak	0.01	0.01	1	320	0.01	0.93	*
Marijuana Dependence - Diagnosis yr14	yad14mdd	0.05	0.11	1	327	3.33	0.07	
Marijuana Dependence - At least 1 intermediate impairment yr14	yad14mdi	0.02	0.07	1	319	4.22	0.04	
Marijuana Dependence - At least 2 intermediate impairment yr14	yad14mdj	0.01	0.02	1	321	0.67	0.41	**
Marijuana Dependence - At least 1 severe impairment yr14	yad14mdk	0.01	0.02	1	319	0.65	0.42	**
Other Substance Abuse - Diagnosis yr14	yad14sad	0.01	0.00	1	327	0.90	0.34	*
Other Substance Abuse - At least 1 intermediate impairment yr14	yad14sai	0.00	0.00	1	321	0.45	0.50	*
Other Substance Abuse - At least 2 intermediate impairment yr14	yad14saj	0.00	0.00		321			*
Other Substance Abuse - At least 1 severe impairment yr14	yad14sak	0.00	0.00	1	321	0.45	0.50	*
Other Substance Dependence - Diagnosis yr14	yad14sdd	0.00	0.03	1	327	3.69	0.05	**
Other Substance Dependence - At least 1 intermediate impairment yr14	yad14sdi	0.00	0.02	1	321	1.78	0.18	**
Other Substance Dependence - At least 2 intermediate impairment yr14	yad14sdj	0.00	0.02	1	321	4.45	0.03	**
Other Substance Dependence - At least 1 severe impairment yr14	yad14sdk	0.00	0.02	1	321	1.78	0.18	**

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

Analysts should also examine how many participants met diagnostic criteria (or diagnosis plus impairment criteria) before generating descriptive statistics or using outcomes in statistical models. In general, most items will have a high frequency of participants who did not meet criteria (i.e., zeros), so examination of individual response distributions is highly advised.