ADHD Checklist—Teacher Version

Grade 1/Year 2
Fast Track Project Technical Report
Cynthia Rains
May 6, 2005

Table of Contents

Appendix

SAS scoring program

Citation

Instrument

DuPaul, G.J. (1990). *The ADHD Rating Scale: Normative data, reliability, and validity*. Unpublished manuscript. The University of Massachusetts Medical Center, Worcester, MA.

Report

Rains, C. (2005). *ADHD Checklist—Teacher Version* (Fast Track Project Technical Report). Available from the Fast Track Project website: http://www.fasttrackproject.org/

Data Sources

Raw: *T2D*

Scored: *ADT2*

I. Scale Description

The ADHD Checklist is composed of 14 items used to evaluate the occurrence of ADHD symptoms in children. These items are listed as the criteria for ADHD in the DSMIII-R and have been placed into a checklist format (DuPaul, 1990). The same checklist can be used for both parents and teachers (see separate detailed technical reports).

II. Report Sample

These analyses were conducted on the first cohort on the high-risk control sample (n = 155) and the normative sample (n = 387, N=463 with overlap) from the second year of the study. Thirty-six records were missing the complete measure. Eighteen records were missing from the control sample (7 from Nashville, 7 from Pennsylvania, and 4 from Washington) and 24 records were missing from the normative sample (1 from Durham, 11 from Nashville, 10 from Pennsylvania, and 2 from Washington). These numbers may reflect some overlap between the two samples.

III. Scaling

The 14 items evaluate a child's behavior and the likelihood of the child having ADHD. Each item is scored on a response scale of 0 to 3, where 0=not at all, 1=just a little, 2=pretty much, and 3=very much.

There are three derived scores and two diagnostic categorizations for this measure. All of these subscales are summary scores that are based on factor analysis or theoretically derived.

The first scale measures *Inattention*. Items include whether the child often fidgets in the seat (item 1), whether the child has difficulty remaining seated (item 2), whether the child is easily distracted (item 3), whether the child has difficulty following instructions (item 6), whether the child has difficulty sustaining attention to tasks (item 7), whether the child shifts from one uncompleted activity to another (item 8), whether the child does not seem to listen (item 12), and whether the child often loses things necessary for tasks (item 13).

The second scale measures *Impulsivity*. Items include whether the child often fidgets in the seat (item 1), whether the child has difficulty remaining seated (item 2), whether the child has difficulty awaiting turn in a group (item 4), whether the child often blurts out answers to questions (item 5), whether the child has difficulty playing quietly (item 9), whether the child often talks excessively (item 10), whether the child often interrupts or intrudes on others (item 11), and whether the child often engages in physically dangerous activities without considering consequences (item 14).

The next scale measures the *Total of all* the items and includes items 1-14. Those scores in this category that exceed the 1.5 standard deviation mark above the mean for age/sex are considered a clinically significant score. A dichotomous score (0 = "not clinically significant" and 1 = "clinically significant") is formed using a cutoff of 26 for male respondents and 23 for female respondents, based on the norms for age 7 provided by DuPaul.

The last scale measures the *Number of Symptoms Present* and includes all of the items. Adding the number of items rated as 2 or higher scores this scale. A score of 8 or more exceeds the DSMIII-R cutoff for a diagnosis of ADHD. Respondents with a total score at or above the clinical cutoff receive a "1" to indicate a diagnosis of ADHD. A "0" indicates that the respondent was not diagnosed with ADHD.

Cronbach's alphas were calculated for each subscale and are shown in the table below:

Subscales	**Cronbach's Alpha**	
	Control Sample	**Normative Sample**
Inattention (ADT2INA)	.96	.96
Impulsivity (ADT2IMP)	.95	.94
Total of all (ADT2TOT)	.97	.96
Number of Symptoms Present (ADT2SYM)	.93	.93

Each of the scales showed a high level of internal consistency for both the control and the normative samples.

IV. Differences Between Groups

A series of t-tests between the high-risk control sample and the normative sample (including the overlap) indicated significant differences for three of the subscales, with the participants in the control sample scoring higher than those in the normative sample for all three of these scales: *Inattention, Impulsivity,* and *Total of all*.

Comparison of Means for Normative and Control for Continuous Scales and Items								
		Normative		Control				
Variable	Label	Mean	Std Dev	Mean	Std Dev	DF	t Value	Pr > |t|
ADT2INA	Inattention	10.34	7.81	12.35	7.79	425	2.48	0.0135
ADT2IMP	Impulsivity	9.17	7.24	10.91	7.50	425	2.29	0.0227
ADT2TOT	Total of all	16.73	12.39	19.93	12.80	425	2.46	0.0142
ADT2SYM	Number of Symptoms Present	2.57	3.88	3.30	4.23	425	1.78	0.0752

The frequency distribution of the *Total of all* diagnostic criterion among the high-risk control and normative samples was:

Table of ADT2diag2 by group			
ADT2diag2 (Diagnosis for Total of all)	Group		
Frequency Column Percent	Control	Normative	Total
Not clinically significant 0	126 91.97	258 88.97	384
Clinically significant 1	11 8.03	32 11.03	43
Total	137 32.08	290 67.92	427 100.00
Frequency Missing = 36			

With χ^2 (1, N = 427) = 0.9279, p< 0.3354, the hypothesis of independence between risk category (normative or high-risk control) and diagnosis of being clinically significant was not rejected for these data.

In addition, the frequency distribution of the *Number of Symptoms* diagnostic criterion among the high-risk control and normative samples was:

Table of ADT2diag1 by group			
ADT2diag1 (Diagnosis for Number of Symptoms)	Group		
Frequency Column Percent	Control	Normative	Total
Non-ADHD diagnosis 0	117 85.40	254 87.59	371
ADHD diagnosis 1	20 14.60	36 12.41	56
Total	137 32.08	290 67.92	427 100.00
Frequency Missing = 36			

With χ^2 (1, N = 427) = 0.3898, p< 0.5324, the hypothesis of independence between risk category (normative or high-risk control) and diagnosis of ADHD was not rejected for these data.

Finally, it should also be noted that only 27 children received a score of "1" for both categories (i.e. *Total of all* diagnostic criterion and the *Number of Symptoms Present* diagnostic criterion). More children scored a "1" for the *Number of Symptoms Present* score.

Table of ADT2diag1 by ADT2diag2			
ADT2diag1 (Diagnosis for Number of Symptoms)	**ADT2diag2 (Diagnosis for Total of all)**		
Frequency Percent Row Percent Column Percent	**0**	**1**	**Total**
0	355 83.14 95.69 92.45	16 3.75 4.31 37.21	371 86.89
1	29 6.79 51.79 7.55	27 6.32 48.21 62.79	56 13.11
Total	384 89.93	43 10.07	427 100.00
Frequency Missing = 36			

V. Recommendations for Use

Analysts should note that three of the subscales showed a fairly normal distribution for both the normative and control samples. These subscales were *Inattention*, *Impulsivity*, and *Total of all* the items. The normative sample was positively skewed for the *Number of Symptoms Present,* but the control sample was normally distributed.

The normative sample for *Number of Symptoms Present* showed a floor effect with 53% of the participants scoring 0.0. The highest possible score for this scale was 14.0.

VI. Item and Subscale Means and SDs

ADHD Checklist—Teacher Version Items Year 2 Normative Sample

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
T2D1	Often Fidgets or Squirms in Seat	363	1.5289256	1.0622169	0	3.0000000
T2D2	Has Difficulty Remaining Seated	363	1.3801653	1.1699946	0	3.0000000
T2D3	Is Easily Distracted	363	1.6473829	1.1060669	0	3.0000000
T2D4	Has Difficulty Awaiting Turn in Group	362	1.1685083	1.0846716	0	3.0000000
T2D5	Often Blurts Out Answers to Questions	363	1.1955923	1.1261740	0	3.0000000
T2D6	Has Difficulty Following Instructions	363	1.3746556	1.0759126	0	3.0000000
T2D7	Has Difficulty Sustaining Attention	362	1.4060773	1.1522670	0	3.0000000
T2D8	Often Shifts from 1 Uncompleted Activity	363	1.0909091	1.1321519	0	3.0000000
T2D9	Has Difficulty Playing Quietly	363	1.1349862	1.0647357	0	3.0000000
T2D10	Often Talks Excessively	363	1.3526171	1.1135343	0	3.0000000
T2D11	Often Interrupts or Intrudes on Others	363	1.2231405	1.1210266	0	3.0000000
T2D12	Often Does Not Seem to Listen	363	1.3911846	1.1055508	0	3.0000000
T2D13	Often Loses Things Necessary to Task	362	1.0027624	1.0617986	0	3.0000000
T2D14	Often Engages in Dangerous Activities	363	0.6033058	0.9207192	0	3.0000000

ADHD Checklist—Teacher Version Items Year 2 Control Sample

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
T2D1	Often Fidgets or Squirms in Seat	137	1.7007299	1.0871236	0	3.0000000
T2D2	Has Difficulty Remaining Seated	137	1.6277372	1.1311583	0	3.0000000
T2D3	Is Easily Distracted	137	1.8467153	1.0906724	0	3.0000000
T2D4	Has Difficulty Awaiting Turn in Group	136	1.3750000	1.1670634	0	3.0000000
T2D5	Often Blurts Out Answers to Questions	137	1.3722628	1.1180820	0	3.0000000
T2D6	Has Difficulty Following Instructions	137	1.5766423	1.0895400	0	3.0000000
T2D7	Has Difficulty Sustaining Attention	137	1.6277372	1.1376401	0	3.0000000
T2D8	Often Shifts from 1 Uncompleted Activity	137	1.3284672	1.1121620	0	3.0000000
T2D9	Has Difficulty Playing Quietly	137	1.2189781	1.0411767	0	3.0000000
T2D10	Often Talks Excessively	137	1.4817518	1.1317750	0	3.0000000
T2D11	Often Interrupts or Intrudes on Others	137	1.3941606	1.1463347	0	3.0000000
T2D12	Often Does Not Seem to Listen	137	1.5328467	1.1117758	0	3.0000000
T2D13	Often Loses Things Necessary to Task	135	1.1037037	1.0528857	0	3.0000000
T2D14	Often Engages in Dangerous Activities	137	0.7299270	0.9195879	0	3.0000000

ADHD Checklist—Teacher Version Subscales Year 2 Normative Sample

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
ADT2INA	Inattention - ADHD-Teacher - T2d	363	10.8205431	7.8692207	0	24.0000000
ADT2IMP	Impulsivity - ADHD-Teacher - T2d	363	9.5907123	7.3665080	0	24.0000000
ADT2TOT	Total of all - ADHD-Teacher - T2d	363	17.5026489	12.5873017	0	42.0000000
ADT2SYM	Number of Symptoms Present - ADHD Teacher	363	2.7923289	4.0646164	0	14.0000000

ADHD Checklist—Teacher Version Subscales Year 2 Control Sample

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
ADT2INA	Inattention - ADHD-Teacher - T2d	137	12.3461940	7.7915660	0	24.0000000
ADT2IMP	Impulsivity - ADHD-Teacher - T2d	137	10.9082377	7.5023953	0	24.0000000
ADT2TOT	Total of all - ADHD-Teacher - T2d	137	19.9292532	12.8035576	0	42.0000000
ADT2SYM	Number of Symptoms Present - ADHD Teacher	137	3.3043234	4.2324952	0	14.0000000

VII. Subscale Correlations

ADHD Checklist—Teacher Version Subscales Year 2 Report Sample

Pearson Correlation Coefficients, N = 427 Prob > |r| under H0: Rho=0				
	ADT2INA	**ADT2IMP**	**ADT2TOT**	**ADT2SYM**
ADT2INA Inattention - ADHD-Teacher - T2d	1.000	0.847 0.000	0.962 0.000	0.830 0.000
ADT2IMP Impulsivity - ADHD-Teacher - T2d	0.847 0.000	1.000	0.957 0.000	0.825 0.000
ADT2TOT Total of all - ADHD-Teacher - T2d	0.962 0.000	0.957 0.000	1.000	0.865 0.000
ADT2SYM Number of Symptoms Present - ADHD Teacher	0.830 0.000	0.825 0.000	0.865 0.000	1.000