Electronic Supplements

Table S1

Three-Factor Item Mapping and Factor Loading of ESEM Model (Parent Rated SNAP-IV)

for baseline data.

	Factors		
Items	Factor 1	Factor 2	Factor 3
1. Fails to give close attention to details or makes careless mistakes in schoolwork	0.900		
2. Has difficulty sustaining attention in tasks or play activities	0.699		
3. Does not seem to listen when spoken to directly	0.569		
4. Does not follow through on instructions and fails to finish schoolwork, chores, or duties	0.847		
5. Has difficulty organising tasks and activities	0.808		
6. Avoids tasks (e.g., schoolwork, homework) that requires sustained mental effort	0.814		
7. Loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, or books)	0.736		
8. Is easily distracted	0.633		
9. Is forgetful in daily activities	0.752		
10. Fidgets with hands or feet or squirms in seat	0.361		0.056

11. Leaves seat in classroom or in other situations in which remaining seated is expected		0.049	
12. Runs about or climbs excessively in situations in which it is inappropriate	0.342	0.059	
13. Has difficulty playing or engaging in leisure activities quietly	0.545		
14. Is "on the go" or often acts as if "driven by a motor"	0.540	0.059	
15. Talks excessively	0.994		
16. Blurts out answers before questions have been completed	0.788		
17. Has difficulty awaiting turn	0.816		
18. Interrupts or intrudes on others	0.810		

Note. Only significant loadings are presented for ease of reading.

Table S2

Two-Factor Item Mapping and Factor Loading of 2-Factor Configural Invariance

(Baseline/Follow-up 1/ Follow-up 2) ESEM Model (Parent Rated SNAP-IV)

	Factors		
Items	Inattention	Hyperactivity/impulsivity	
1. Fails to give close attention to	0.800/ 0.856/ 0.827		
details or makes careless mistakes			
in schoolwork			
2. Has difficulty sustaining	0.624 / 0.769/ 0.716		
attention in tasks or play activities			
3. Does not seem to listen when	0.520/ 0.660/ 0.607		
spoken to directly			
4. Does not follow through on	0.789/ 0.848/ 0.904		
instructions and fails to finish			
schoolwork, chores, or duties			
5. Has difficulty organising tasks	0.789/ 0.875/ 0.794		
and activities			
6. Avoids tasks (e.g., schoolwork,	0.738/ 0.786/ 0.752		
homework) that requires sustained			
mental effort			
7. Loses things necessary for tasks	0.748/ 0.741/ 0.821		
or activities (e.g., toys, school			
assignments, pencils, or books)			
8. Is easily distracted	0.547/ 0.575/ 0.667		

9. Is forgetful in daily activities	0.720/ 0.746/ 0.732	
10. Fidgets with hands or feet or squirms in seat		0.591/ 0.585/ 0.558
11. Leaves seat in classroom or in		0.670/ 0.662/ 0.664
other situations in which remaining seated is expected		
12. Runs about or climbs excessively in situations in which it is inappropriate		0.912/ 0.893/ 0.857
13. Has difficulty playing or engaging in leisure activities quietly		0.699/ 0.632/ 0.691
14. Is "on the go" or often acts as if "driven by a motor"		0.975/ 0.921/ 0.986
15. Talks excessively		0.888/ 0.841/ 0.852
16. Blurts out answers before questions have been completed		0.731/ 0.625/ 0.713
17. Has difficulty awaiting turn		0.795/ 0.617/ 0.806
18. Interrupts or intrudes on others		0.777/ 0.636/ 0.733

Note. Only significant loadings are presented for ease of reading. Data presented baseline/follow-up 1/ follow-up 2.

Table S3

Bi-Two-Factor Item Mapping and Factor Loading of ESEM Model (Parent Rated SNAP-IV) for baseline data

	Factors		
Items	General Factor	Factor 1	Factor 2
1. Fails to give close attention to	0.710		
details or makes careless mistakes			
in schoolwork			
2. Has difficulty sustaining	0.524	0.502	
attention in tasks or play activities			
3. Does not seem to listen when	0.437	0.504	
spoken to directly			
4. Does not follow through on	0.701		
instructions and fails to finish			
schoolwork, chores, or duties			
5. Has difficulty organising tasks	0.726	0.300	
and activities			
6. Avoids tasks (e.g., schoolwork,	0.646		
homework) that requires sustained			
mental effort			
7. Loses things necessary for tasks	0.706		
or activities (e.g., toys, school			
assignments, pencils, or books)			
8. Is easily distracted			
9. Is forgetful in daily activities	0.651	0.345	

10. Fidgets with hands or feet or	0.709
squirms in seat	
11. Leaves seat in classroom or in	0.721
other situations in which	
remaining seated is expected	
12. Runs about or climbs	0.840
	0.040
excessively in situations in which	
it is inappropriate	
13. Has difficulty playing or	
engaging in leisure activities	
quietly	
14. Is "on the go" or often acts as	
if "driven by a motor"	
15. Talks excessively	
13. Talks excessively	
16. Blurts out answers before	
questions have been completed	
45 II 1100 II	
17. Has difficulty awaiting turn	
18. Interrupts or intrudes on	
others	

Note. Only significant loadings are presented for ease of reading. There were no significant correlations on the third factor.

Table S4

Two-Factor Item Mapping and Factor Loading of 2-Factor Configural Invariance

(Baseline/Follow-up 1/ Follow-up 2) ESEM Model (Teacher Rated SNAP-IV)

	Factors		
Items	Inattention	Hyperactivity/impulsivity	
1. Fails to give close attention to	0.834/ 0.736/ 0.864		
details or makes careless mistakes			
in schoolwork			
2. Has difficulty sustaining	0.847/ 0.805/ 0.849		
attention in tasks or play activities			
3. Does not seem to listen when	0.726/ 0.785/ 0.766		
spoken to directly			
4. Does not follow through on	0.825/ 0.903/ 1.00		
instructions and fails to finish			
schoolwork, chores, or duties			
5. Has difficulty organising tasks	0.926 / 1.00/ 0.998		
and activities			
6. Avoids tasks (e.g., schoolwork,	0.831/ 0.778/ 0.841		
homework) that requires sustained			
mental effort			
7. Loses things necessary for tasks	0.805/ 0.851/ 0.829		
or activities (e.g., toys, school			
assignments, pencils, or books)			
8. Is easily distracted	0.862/ 0.745/ 0.794		
9. Is forgetful in daily activities	0.945/ 0.940/ 0.880		

10. Fidgets with hands or feet or squirms in seat	0.416/	0.436/ 0.791/ 0.585
11. Leaves seat in classroom or in		0.623/ 0.800/ 0.709
other situations in which remaining seated is expected		
12. Runs about or climbs excessively in situations in which it is inappropriate		0.667/ 0.739/ 0.517
13. Has difficulty playing or engaging in leisure activities quietly		0.778/ 0.836/ 0.666
14. Is "on the go" or often acts as if "driven by a motor"		0.863/ 0.871/ 0.868
15. Talks excessively		0.932/ 0.901/ 0.898
16. Blurts out answers before questions have been completed		0.931/ 0.943/ 0.917
17. Has difficulty awaiting turn		0.931/ 0.907/ 0.963
18. Interrupts or intrudes on others		0.953/ 0.942/ 0.949

Note. Only significant loadings are presented for ease of reading. Data presented baseline/ follow-up 1/ follow-up 2.

Table S5

Three-Factor Item Mapping and Factor Loading of ESEM Model (Teacher Rated SNAP-IV) for baseline data.

	Factors			
Items	Factor 1	Factor 2	Factor 3	
1. Fails to give close attention to	0.815			
details or makes careless mistakes				
in schoolwork				
2. Has difficulty sustaining	0.746		0.322	
attention in tasks or play activities				
3. Does not seem to listen when	0.734			
spoken to directly				
4. Does not follow through on	0.944			
instructions and fails to finish				
schoolwork, chores, or duties				
5. Has difficulty organising tasks	1.017			
and activities				
6. Avoids tasks (e.g., schoolwork,	0.886		0.147	
homework) that requires sustained				
mental effort				
7. Loses things necessary for tasks	0.966		0.399	
or activities (e.g., toys, school				
assignments, pencils, or books)				
8. Is easily distracted	0.725		0.245	
9. Is forgetful in daily activities	0.980			

10. Fidgets with hands or feet or	0.815	0.545	0.490	
squirms in seat				
11. Leaves seat in classroom or in		0.726	0.183	
other situations in which				
remaining seated is expected				
12. Runs about or climbs		0.655	0.229	
excessively in situations in which				
it is inappropriate				
13. Has difficulty playing or		0.794	0.182	
engaging in leisure activities				
quietly				
14. Is "on the go" or often acts as		0.902		
if "driven by a motor"				
15. Talks excessively		0.995		
16. Blurts out answers before		1.009		
questions have been completed				
17. Has difficulty awaiting turn		0.992	0.182	
18. Interrupts or intrudes on		1.019	0.230	
others				

Note. Only significant loadings are presented for ease of reading.

Table S6

Bi-Two-Factor Item Mapping and Factor Loading of 2 ESEM Model (Teacher Rated SNAP-IV) for baseline data.

Items	General Factor	Factor 1	Factor 2
1. Fails to give close attention to	0.670	0.496	
details or makes careless mistakes			
in schoolwork			
2. Has difficulty sustaining	0.838	0.411	
attention in tasks or play activities			
3. Does not seem to listen when	0.664	0.440	-
spoken to directly			
4. Does not follow through on	0.673	0.591	
instructions and fails to finish			
schoolwork, chores, or duties			
5. Has difficulty organising tasks	0.630	0.639	
and activities			
6. Avoids tasks (e.g., schoolwork,	0.599	0.579	
homework) that requires sustained			
mental effort			
7. Loses things necessary for tasks	0.438	0.673	
or activities (e.g., toys, school			
assignments, pencils, or books)			
8. Is easily distracted	0.847	0.410	
9. Is forgetful in daily activities	0.558	0.614	

10. Fidgets with hands or feet or	0.851	
squirms in seat		
11. Leaves seat in classroom or in	0.824	
other situations in which		
remaining seated is expected		
12. Runs about or climbs	0.765	
	0.705	
excessively in situations in which		
it is inappropriate		
13. Has difficulty playing or	0.818	0.324
engaging in leisure activities	0.010	\.
quietly		
14. Is "on the go" or often acts as	0.827	0.337
if "driven by a motor"		
15. Talks excessively	0.720	0.525
16. Blurts out answers before	0.686	0.596
questions have been completed		
questions have been completed		
17. Has difficulty awaiting turn	0.697	0.646
18. Interrupts or intrudes on	0.678	0.689
•	U.U/O	0.007
others		

Note. Only significant loadings are presented for ease of reading.

Table S7

Association between combined parent and teacher SNAP-IV scores and diagnosis from DAWBA and clinician for ADHD/Hyperkinetic disorder

SNAP-IV	DAWBA ICD-10	DAWBA DSM-5	Clinical diagnosis
scales	HKD present	ADHD present	ADHD present
	OR(95%CI),p=	OR(95%CI),p=	OR(95%CI),p=
Inatt - p	3.12(1.32-7.40), p=0.010	3.13(1.31-7.44),p=0.010	1.01(0.33-2.98),p=0.989
Hyp / imp - p	2.36(1.06-5.22),p=0.034	3.82 (1.55-9.40),p=0.003	2.74(0.96-7.77),p=0.059
Inatt - t	1.04(0.50-2.16),p= 0.912	1.60(0.73-3.50),p=0.238	1.87(0.65-5.44),p=0.248
Hyp/ imp – t	2.01(1.05-3.86),p=0.036	1.60(0.80-3.22),p=0.185	1.45(0.55-3.77),p=0.445

 $\overline{\text{Note. Inatt} = \text{inattention. Hyp} = \text{hyperactivity. Imp} = \text{impulsivity}}$