SUPPLEMENTARY MATERIAL

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Trajectory Analysis for Identifying Classes of Attention Deficit Hyperactivity Disorder (ADHD) in Children of the United States

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Table S1. Logistic regression stepwise selected predictors using C1 as the reference group.

-	Odds Ratio	95% CI	p-value
C2	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.07	(0.62 - 1.84)	0.6427
Black vs. White, non-Hispanic	1.47	(0.85 - 2.54)	0.2056
Mother's education level (year)	1.02	(0.93 - 1.12)	0.7305
Mother smoked during 12 months before the birth of the child (yes)	1.20	(0.71 - 2.04)	0.5020
Breastfeed (yes)	0.56	(0.36 - 0.89)	0.0140*
Headstrong score	1.90	(1.55 - 2.33)	<.0001*
Dependent score	1.24	(1.01 - 1.53)	0.0364*
Peer conflict/social withdrawal score	1.57	(0.77 - 3.16)	0.2124
-	-	-	-
C3	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.50	(0.82 - 2.77)	0.3317
Black vs. White, non-Hispanic	1.25	(0.66 - 2.35)	0.9626
Mother's education level (year)	0.96	(0.86 - 1.07)	0.4385
Mother smoked during 12 months before the birth of the child (yes)	1.11	(0.61 - 2.03)	0.7263
Breastfeed (yes)	0.50	(0.30 - 0.85)	0.0094*
Headstrong score	1.97	(1.58 - 2.47)	<.0001*

-	Odds Ratio	95% CI	p-value
Dependent score	1.42	(1.14 - 1.78)	0.0021*
Peer conflict/social withdrawal score	2.57	(1.26 - 5.24)	0.0095*
-	-	-	-
C4	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.62	(0.93 - 2.83)	0.4804
Black vs. White, non-Hispanic	1.76	(1.00 - 3.11)	0.2502
Mother's education level (year)	0.91	(0.83 - 1.01)	0.0634
Mother smoked during 12 months before the birth of the child (yes)	1.65	(0.96 - 2.81)	0.0686
Breastfeed (yes)	0.53	(0.33 - 0.85)	0.0086*
Headstrong score	2.88	(2.34 - 3.54)	<.0001*
Dependent score	1.46	(1.18 - 1.79)	0.0004*
Peer conflict/social withdrawal score	2.37	(1.19 - 4.73)	0.0142*
-	-	-	-
C5	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.67	(0.89 - 3.11)	0.8532
Black vs. White, non-Hispanic	3.11	(1.69 - 5.72)	0.0037*
Mother's education level (year)	0.95	(0.85 - 1.05)	0.2970
Mother smoked during 12 months before the birth of child (yes)	1.24	(0.69 - 2.24)	0.4661
Breastfeed (yes)	0.59	(0.35 - 0.98)	0.0418*
Headstrong score	3.63	(2.91 - 4.53)	<.0001*
Dependent score	1.63	(1.30 - 2.03)	<.0001*
Peer conflict/social withdrawal score	3.60	(1.79 - 7.22)	0.0003*
-	-	-	-
C6	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.64	(0.76 - 3.52)	0.6985
Black vs. White, non-Hispanic	3.59	(1.76 - 7.31)	0.0036*
Mother's education level (year)	0.83	(0.74 - 0.95)	0.0048*
Mother smoked during 12 months before the birth of the child (yes)	2.20	(1.14 - 4.27)	0.0192*
Breastfeed (yes)	0.57	(0.31 - 1.04)	0.0659
Headstrong score	5.65	(4.31 - 7.41)	<.0001*
Dependent score	2.15	(1.65 - 2.80)	<.0001*
Peer conflict/social withdrawal score	4.29	(2.10 - 8.77)	<.0001*

Table S2. Logistic regression stepwise selected predictors using C2 as the reference group.

-	Odds Ratio	95% CI	p-value
C1	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	0.94	(0.54 - 1.62)	0.6427
Black vs. White, non-Hispanic	0.68	(0.39 - 1.18)	0.2056
Mother's education level (year)	0.98	(0.90 - 1.08)	0.7305
Mother smoked during 12 months before the birth of the child (yes)	0.83	(0.49 - 1.42)	0.5020
Breastfeed (yes)	1.78	(1.12 - 2.80)	0.0140*
Headstrong score	0.53	(0.43 - 0.65)	<.0001*
Dependent score	0.80	(0.66 - 0.99)	0.0364*
Peer conflict/social withdrawal score	0.64	(0.32 - 1.29)	0.2124
-	-	-	-
C3	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.41	(0.87 - 2.29)	0.0744
Black vs. White, non-Hispanic	0.85	(0.52 - 1.38)	0.1584
Mother's education level (year)	0.94	(0.87 - 1.03)	0.1712

-	Odds Ratio	95% CI	p-value
Mother smoked during 12 months before the birth of the child (yes)	0.93	(0.59 - 1.46)	0.7458
Breastfeed (yes)	0.89	(0.60 - 1.33)	0.5739
Headstrong score	1.04	(0.91 - 1.20)	0.5689
Dependent score	1.15	(0.97 - 1.35)	0.0998
Peer conflict/social withdrawal score	1.64	(1.14 - 2.37)	0.0078*
-	-	-	-
C4	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.52	(1.02 - 2.26)	0.0931
Black vs. White, non-Hispanic	1.20	(0.83 - 1.74)	0.8920
Mother's education level (year)	0.90	(0.84 - 0.96)	0.0017*
Mother smoked during 12 months before the birth of the child (yes)	1.37	(0.98 - 1.93)	0.0688
Breastfeed (yes)	0.95	(0.69 - 1.29)	0.7291
Headstrong score	1.52	(1.36 - 1.69)	<.0001*
Dependent score	1.17	(1.03 - 1.33)	0.0161*
Peer conflict/social withdrawal score	1.52	(1.12 - 2.05)	0.0070*
-	-	-	-
C5	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.56	(0.97 - 2.53)	0.7588
Black vs. White, non-Hispanic	2.12	(1.39 - 3.24)	0.0113*
Mother's education level (year)	0.93	(0.86 - 1.01)	0.0709
Mother smoked during 12 months before the birth of the child (yes)	1.04	(0.69 - 1.56)	0.8619
Breastfeed (yes)	1.04	(0.72 - 1.50)	0.8257
Headstrong score	1.92	(1.68 - 2.19)	<.0001*
Dependent score	1.31	(1.13 - 1.52)	0.0004*
Peer conflict/social withdrawal score	2.30	(1.68 - 3.14)	<.0001*
-	-	-	-
C6	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.54	(0.80 - 2.94)	0.9564
Black vs. White, non-Hispanic	2.45	(1.40 - 4.27)	0.0138*
Mother's education level (year)	0.82	(0.74 - 0.91)	0.0002*
Mother smoked during 12 months before the birth of the child (yes)	1.84	(1.11 - 3.05)	0.0187*
Breastfeed (yes)	1.01	(0.62 - 1.63)	0.9731
Headstrong score	2.98	(2.43 - 3.66)	<.0001*
Dependent score	1.73	(1.41 - 2.12)	<.0001*
Peer conflict/social withdrawal score	2.74	(1.94 - 3.88)	<.0001*

Table S3. Logistic regression stepwise selected predictors using C3 as the reference group.

-	Odds Ratio	95% CI	p-value
C1	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	0.67	(0.36 - 1.23)	0.3317
Black vs. White, non-Hispanic	0.80	(0.43 - 1.52)	0.9626
Mother's education level (year)	1.04	(0.94 - 1.16)	0.4385
Mother smoked during 12 months before the birth of the child (yes)	0.90	(0.49 - 1.64)	0.7263
Breastfeed (yes)	1.99	(1.18 - 3.34)	0.0094*
Headstrong score	0.51	(0.41 - 0.63)	<.0001*
Dependent score	0.70	(0.56 - 0.88)	0.0021*
Peer conflict/social withdrawal score	0.39	(0.19 - 0.79)	0.0095*
-	-	-	-
C2	-	-	-
Race	-	-	-

-	Odds Ratio	95% CI	p-value
Hispanic vs. White, non-Hispanic	0.71	(0.44 - 1.15)	0.0744
Black vs. White, non-Hispanic	1.18	(0.73 - 1.91)	0.1584
Mother's education level (year)	1.06	(0.98 - 1.15)	0.1712
Mother smoked during 12 months before the birth of the child (yes)	1.08	(0.69 - 1.69)	0.7458
Breastfeed (yes)	1.12	(0.76 - 1.66)	0.5739
Headstrong score	0.96	(0.83 - 1.11)	0.5689
Dependent score	0.87	(0.74 - 1.03)	0.0998
Peer conflict/social withdrawal score	0.61	(0.42 - 0.88)	0.0078*
-	-	-	-
C4	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.08	(0.68 - 1.71)	0.6549
Black vs. White, non-Hispanic	1.42	(0.88 - 2.28)	0.1776
Mother's education level (year)	0.95	(0.88 - 1.03)	0.2291
Mother smoked during 12 months before the birth of the child (yes)	1.48	(0.97 - 2.26)	0.0709
Breastfeed (yes)	1.06	(0.73 - 1.55)	0.7639
Headstrong score	1.46	(1.28 - 1.67)	<.0001*
Dependent score	1.02	(0.88 - 1.19)	0.7887
Peer conflict/social withdrawal score	0.92	(0.68 - 1.25)	0.6014
-	-	-	-
C5	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.11	(0.65 - 1.88)	0.1646
Black vs. White, non-Hispanic	2.50	(1.50 - 4.18)	0.0005*
Mother's education level (year)	0.99	(0.90 - 1.08)	0.7555
Mother smoked during 12 months before the birth of the child (yes)	1.12	(0.69 - 1.80)	0.6486
Breastfeed (yes)	1.17	(0.76 - 1.78)	0.4746
Headstrong score	1.84	(1.58 - 2.14)	<.0001*
Dependent score	1.14	(0.96 - 1.36)	0.1245
Peer conflict/social withdrawal score	1.40	(1.03 - 1.90)	0.0322*
-	-	-	-
C6	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.09	(0.55 - 2.16)	0.1782
Black vs. White, non-Hispanic	2.88	(1.54 - 5.39)	0.0009*
Mother's education level (year)	0.87	(0.78 - 0.97)	0.0146*
Mother smoked during 12 months before the birth of the child (yes)	1.98	(1.13 - 3.47)	0.0170*
Breastfeed (yes)	1.13	(0.67 - 1.91)	0.6497
Headstrong score	2.86	(2.31 - 3.55)	<.0001*
Dependent score	1.51	(1.21 - 1.88)	0.0003*
Peer conflict/social withdrawal score	1.67	(1.19 - 2.35)	0.0032*

Table S4. Logistic regression stepwise selected predictors using C4 as the reference group.

-	Odds Ratio	95% CI	p-value
C1	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	0.62	(0.35 - 1.08)	0.4804
Black vs. White, non-Hispanic	0.57	(0.32 - 1.00)	0.2502
Mother's education level (year)	1.10	(1.00 - 1.21)	0.0634
Mother smoked during 12 months before the birth of the child (yes)	0.61	(0.36 - 1.04)	0.0686
Breastfeed (yes)	1.88	(1.17 - 3.00)	0.0086*
Headstrong score	0.35	(0.28 - 0.43)	<.0001*
Dependent score	0.69	(0.56 - 0.85)	0.0004*
Peer conflict/social withdrawal score	0.42	(0.21 - 0.84)	0.0142*

-	Odds Ratio	95% CI	p-value
-	-	-	-
C2	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	0.66	(0.44 - 0.98)	0.0931
Black vs. White, non-Hispanic	0.83	(0.58 - 1.20)	0.8920
Mother's education level (year)	1.12	(1.04 - 1.19)	0.0017*
Mother smoked during 12 months before the birth of the child (yes)	0.73	(0.52 - 1.03)	0.0688
Breastfeed (yes)	1.06	(0.77 - 1.44)	0.7291
Headstrong score	0.66	(0.59 - 0.74)	<.0001*
Dependent score	0.86	(0.75 - 0.97)	0.0161*
Peer conflict/social withdrawal score	0.66	(0.49 - 0.89)	0.0070*
-	-	-	-
C3	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	0.93	(0.59 - 1.47)	0.6549
Black vs. White, non-Hispanic	0.71	(0.44 - 1.13)	0.1776
Mother's education level (year)	1.05	(0.97 - 1.14)	0.2291
Mother smoked during 12 months before the birth of the child (yes)	0.68	(0.44 - 1.03)	0.0709
Breastfeed (yes)	0.94	(0.65 - 1.38)	0.7639
Headstrong score	0.69	(0.60 - 0.78)	<.0001*
Dependent score	0.98	(0.84 - 1.14)	0.7887
Peer conflict/social withdrawal score	1.08	(0.80 - 1.47)	0.6014
-	-	-	-
C5	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.03	(0.68 - 1.56)	0.1996
Black vs. White, non-Hispanic	1.77	(1.21 - 2.56)	0.0024*
Mother's education level (year)	1.04	(0.97 - 1.11)	0.3175
Mother smoked during 12 months before the birth of the child (yes)	0.76	(0.53 - 1.07)	0.1138
Breastfeed (yes)	1.10	(0.80 - 1.52)	0.5560
Headstrong score	1.26	(1.12 - 1.42)	<.0001*
Dependent score	1.12	(0.98 - 1.28)	0.0886
Peer conflict/social withdrawal score	1.52	(1.23 - 1.87)	<.0001*
-	-	-	-
C6	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.01	(0.56 - 1.82)	0.2242
Black vs. White, non-Hispanic	2.04	(1.23 - 3.38)	0.0048*
Mother's education level (year)	0.91	(0.83 - 1.00)	0.0595
Mother smoked during 12 months before the birth of the child (yes)	1.34	(0.86 - 2.10)	0.2022
Breastfeed (yes)	1.07	(0.69 - 1.65)	0.7763
Headstrong score	1.96	(1.63 - 2.37)	<.0001*
Dependent score	1.48	(1.22 - 1.78)	<.0001*
Peer conflict/social withdrawal score	1.81	(1.41 - 2.32)	<.0001*

Table TS5. Logistic regression stepwise selected predictors using C5 as the reference group.

-	Odds Ratio	95% CI	p-value
C1	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	0.60	(0.32 - 1.12)	0.8532
Black vs. White, non-Hispanic	0.32	(0.18 - 0.59)	0.0037*
Mother's education level (year)	1.06	(0.95 - 1.18)	0.2970
Mother smoked during 12 months before the birth of the child (yes)	0.80	(0.45 - 1.45)	0.4661
Breastfeed (yes)	1.70	(1.02 - 2.84)	0.0418*

-	Odds Ratio	95% CI	p-value
Headstrong score	0.28	(0.22 - 0.34)	<.0001*
Dependent score	0.61	(0.49 - 0.77)	<.0001*
Peer conflict/social withdrawal score	0.28	(0.14 - 0.56)	0.0003*
-	-	-	-
C2	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	0.64	(0.40 - 1.03)	0.7588
Black vs. White, non-Hispanic	0.47	(0.31 - 0.72)	0.0113*
Mother's education level (year)	1.08	(0.99 - 1.17)	0.0709
Mother smoked during 12 months before the birth of the child (yes)	0.96	(0.64 - 1.45)	0.8619
Breastfeed (yes)	0.96	(0.67 - 1.38)	0.8257
Headstrong score	0.52	(0.46 - 0.60)	<.0001*
Dependent score	0.76	(0.66 - 0.89)	0.0004*
Peer conflict/social withdrawal score	0.44	(0.32 - 0.59)	<.0001*
-	-	-	-
C3	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	0.90	(0.53 - 1.53)	0.1646
Black vs. White, non-Hispanic	0.40	(0.24 - 0.67)	0.0005*
Mother's education level (year)	1.01	(0.93 - 1.11)	0.7555
Mother smoked during 12 months before the birth of the child (yes)	0.90	(0.56 - 1.44)	0.6486
Breastfeed (yes)	0.86	(0.56 - 1.31)	0.4746
Headstrong score	0.54	(0.47 - 0.63)	<.0001*
Dependent score	0.87	(0.74 - 1.04)	0.1245
Peer conflict/social withdrawal score	0.72	(0.53 - 0.97)	0.0322*
-	-	-	-
C4	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	0.97	(0.64 - 1.47)	0.1996
Black vs. White, non-Hispanic	0.57	(0.39 - 0.82)	0.0024*
Mother's education level (year)	0.97	(0.90 - 1.04)	0.3175
Mother smoked during 12 months before the birth of the child (yes)	1.32	(0.94 - 1.87)	0.1138
Breastfeed (yes)	0.91	(0.66 - 1.25)	0.5560
Headstrong score	0.79	(0.71 - 0.89)	<.0001*
Dependent score	0.89	(0.78 - 1.02)	0.0886
Peer conflict/social withdrawal score	0.66	(0.54 - 0.81)	<.0001*
-	-	-	-
C6	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	0.98	(0.54 - 1.81)	0.7610
Black vs. White, non-Hispanic	1.15	(0.70 - 1.91)	0.5406
Mother's education level (year)	0.88	(0.80 - 0.97)	0.0105*
Mother smoked during 12 months before the birth of the child (yes)	1.77	(1.12 - 2.81)	0.0154*
Breastfeed (yes)	0.97	(0.62 - 1.51)	0.8847
Headstrong score	1.56	(1.28 - 1.89)	<.0001*
Dependent score	1.32	(1.09 - 1.60)	0.0048*
Peer conflict/social withdrawal score	1.19	(0.94 - 1.51)	0.1442

Table S6. Logistic regression stepwise selected predictors using C6 as the reference group.

-	Odds Ratio	95% CI	p-value
C1	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	0.61	(0.28 - 1.31)	0.6985
Black vs. White, non-Hispanic	0.28	(0.14 - 0.57)	0.0036*

-	Odds Ratio	95% CI	p-value
Mother's education level (year)	1.20	(1.06 - 1.36)	0.0048*
Mother smoked during 12 months before the birth of the child (yes)	0.45	(0.23 - 0.88)	0.0192*
Breastfeed (yes)	1.76	(0.96 - 3.22)	0.0659
Headstrong score	0.18	(0.14 - 0.23)	<.0001*
Dependent score	0.47	(0.36 - 0.61)	<.0001*
Peer conflict/social withdrawal score	0.23	(0.11 - 0.48)	<.0001*
-	-	-	-
C2	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	0.65	(0.34 - 1.24)	0.9564
Black vs. White, non-Hispanic	0.41	(0.23 - 0.71)	0.0138*
Mother's education level (year)	1.22	(1.10 - 1.35)	0.0002*
Mother smoked during 12 months before the birth of the child (yes)	0.54	(0.33 - 0.90)	0.0187*
Breastfeed (yes)	0.99	(0.61 - 1.61)	0.9731
Headstrong score	0.34	(0.27 - 0.41)	<.0001*
Dependent score	0.58	(0.47 - 0.71)	<.0001*
Peer conflict/social withdrawal score	0.37	(0.26 - 0.52)	<.0001*
-	-	-	-
C3	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	0.92	(0.46 - 1.82)	0.1782
Black vs. White, non-Hispanic	0.35	(0.19 - 0.65)	0.0009*
Mother's education level (year)	1.15	(1.03 - 1.29)	0.0146*
Mother smoked during 12 months before the birth of the child (yes)	0.51	(0.29 - 0.89)	0.0170*
Breastfeed (yes)	0.89	(0.52 - 1.50)	0.6497
Headstrong score	0.35	(0.28 - 0.43)	<.0001*
Dependent score	0.66	(0.53 - 0.83)	0.0003*
Peer conflict/social withdrawal score	0.60	(0.43 - 0.84)	0.0032*
-	-	-	-
C4	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	0.99	(0.55 - 1.78)	0.2242
Black vs. White, non-Hispanic	0.49	(0.30 - 0.82)	0.0048*
Mother's education level (year)	1.09	(1.00 - 1.20)	0.0595
Mother smoked during 12 months before the birth of the child (yes)	0.75	(0.48 - 1.17)	0.2022
Breastfeed (yes)	0.94	(0.61 - 1.45)	0.7763
Headstrong score	0.51	(0.42 - 0.62)	<.0001*
Dependent score	0.68	(0.56 - 0.82)	<.0001*
Peer conflict/social withdrawal score	0.55	(0.43 - 0.71)	<.0001*
-	-	-	-
C5	-	-	-
Race	-	-	-
Hispanic vs. White, non-Hispanic	1.02	(0.55 - 1.87)	0.7610
Black vs. White, non-Hispanic	0.87	(0.52 - 1.44)	0.5406
Mother's education level (year)	1.13	(1.03 - 1.25)	0.0105*
Mother smoked during 12 months before the birth of the child (yes)	0.56	(0.36 - 0.90)	0.0154*
Breastfeed (yes)	1.03	(0.66 - 1.61)	0.8847
Headstrong score	0.64	(0.53 - 0.78)	<.0001*
Dependent score	0.76	(0.63 - 0.92)	0.0048*
Peer conflict/social withdrawal score	0.84	(0.66 - 1.06)	0.1442

Table S7. Sensitivity analysis of model fit for 1-7 class quartic group-based trajectory analysis.

Model	Number of Class	BIC	Jeffreys and Kass and Raftery Approximation 2*(BICj-BICi)	Model Comparison (j to i)	Evidence for or Against
1	One	-10555.82	--	--	--
2	Two	-9507.63	2096.38	Model 2 to model 1	Very strong evidence against model 1
3	Three	-9303.62	408.02	Model 3 to model 2	Very strong evidence against model 2
4	Four	-9243.48	120.28	Model 4 to model 3	Very strong evidence against model 3
5	Five	-9221.02	44.92	Model 5 to model 4	Very strong evidence against model 4
6	**Six**	-9218.49	**5.06**	Model 6 to model 5	Strong evidence against model 5
7	Seven	-9220.17	-3.36	Model 7 to model 6	No evidence against model 6