Table S1. Characterization of Repetitive Behaviors through Direct Video Analysis

Patient number	RH	R	G	B	PL	RCE	ER	JHW	JHC	M	SHM	HP	P	HBN	C	TF	F	S	HG	T	MHM	RFM	CAM	HBH	HT	OBS	EPP
n° 1	0	0	1	0	1	0	0	1	0	0	1	0	0	0	1	0	1	1	1	0	0	1	1	0	0	1	0
n°2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
n°3	1	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	1	0	0	1	0	1	0	1	1
n°5	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
n°6	1	0	1	0	0	0	0	0	0	1	1	0	0	0	1	0	0	1	1	1	1	1	0	1	0	1	1
n°7	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
n°8	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
n°9	1	1	0	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0
n°10	1	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	1	0	1	0	0	0	0	1	0
n°11	0	0	1	0	1	0	0	0	1	1	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1
n°14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
n°15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
n°16	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
n°17	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0
n°18	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
n°19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	1	0	0	0	0
n°20	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1
n°21	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
n°22	1	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	1
total	10	3	7	0	6	0	1	5	6	10	9	0	1	0	4	0	5	4	5	4	7	6	5	5	0	7	6

RH: rolling head; R:retropulsion; G:grimace; B:bruxism; PL: protrusion of lips; RCE: repetitive closure of eyes; ER: eye rolling; JHW: joined hands washing; JHC: joined hands clapping; M: mouthing; SHM: separated hands mouthing; HP: hair pulling; PR: pill rolling; HBN: one hand behind the neck; C: castanets; TF: twisting two or three fingers; F: flapping; S: sevillana; HG: hand gaze; T: tapping; MHM: mixed midline hand movements; RFM: repetitive finger movements; CAM: complex arm movement; HBH: hand behind head; HT: hair twirling; OBS: oro-buccal stereotypies; EPP: eyes pressing or poking.

Table S2. Sensory Profile-2 Rough results

patient	seeking	avoiding	sensitivity	registration	auditory	visual	touch	movement	body position	oral	conduct	social emotion	attentional
n° 2	26	30	40	41	14	17	11	7	13	18	12	26	15
n° 3	24	33	50	51	13	16	22	2	26	27	11	25	24
n° 4	49	35	29	36	15	19	13	16	15	19	20	21	26
n° 5	27	23	41	36	16	13	17	6	10	21	15	16	17
n° 6	48	24	43	30	18	23	26	20	9	37	11	5	7
n° 7	41	41	40	33	17	17	15	16	9	15	17	24	25
n° 8	37	23	26	29	12	11	18	9	10	21	9	10	15
n° 9	25	24	22	31	8	16	11	10	11	15	15	18	10
n° 10	28	19	32	62	7	5	12	16	17	21	20	17	33
n° 11	56	38	43	58	30	19	29	16	27	40	15	0	27
n° 12	25	24	23	22	10	6	10	9	8	12	13	16	14
n° 13	25	15	30	32	9	6	6	7	21	22	10	0	21
n° 14	53	23	40	48	22	11	21	23	14	21	19	9	28
n° 15	61	42	42	45	19	11	28	31	13	19	15	25	35
n° 16	62	51	56	57	19	21	40	14	17	29	26	33	41
n° 17	23	32	51	45	18	14	11	11	21	26	10	25	19
n° 18	30	53	37	57	14	21	26	19	24	11	14	33	27
n° 19	20	13	23	34	7	14	10	11	15	9	7	0	11
n° 20	26	8	29	29	15	8	17	10	9	29	2	0	10
n° 21	16	12	22	24	10	9	9	4	6	14	6	1	16

Table S3. Correlations between Sensory Profile 2 and behavioral profile

Variable			SSS					BPIs			
			number	frequency	intensity	interference	global impairmant	SIB frequency	SIB severity	AB frequency	AB severity
Sensory Profile 2	seeking	ρ	0.3386	0.3297	0.1066	0.005450	0.1556	0.1099	0.1643	0.2703	0.2802
		p-value	0.1443	0.1558	0.6547	0.9818	0.5124	0.6445	0.4889	0.2490	0.2315
	avoiding	ρ	0.2645	0.2467	0.02561	-0.1395	0.07249	-0.08321	-0.006868	0.1697	0.2426
		p-value	0.2598	0.2944	0.9147	0.5574	0.7614	0.7273	0.9771	0.4746	0.3027
	sensitivity	ρ	0.5180 *	0.3675	0.4827 *	0.2787	0.3374	0.2908	0.3712	0.2319	0.2414
		p-value	0.01930	0.1109	0.03109	0.2342	0.1457	0.2135	0.1071	0.3253	0.3052
	registration	ρ	0.1471	0.6449 **	0.4049	0.2020	0.04081	0.2141	0.3810	0.1089	0.1037
		p-value	0.5361	0.002139	0.07659	0.3932	0.8644	0.3647	0.09747	0.6477	0.6636
	auditory	ρ	0.4432	0.2594	0.2457	0.1145	0.5845 **	0.2971	0.3530	0.1724	0.2050
		p-value	0.05031	0.2694	0.2965	0.6308	0.006802	0.2034	0.1268	0.4675	0.3859
	visual	ρ	0.3442	0.1093	0.1029	-0.1665	0.1258	-0.2226	-0.1970	0.1892	0.2123
		p-value	0.1372	0.6466	0.6658	0.4828	0.5972	0.3456	0.4051	0.4244	0.3689
	touch	ρ	0.4877 *	0.3795	0.2061	-0.01792	0.2798	0.1270	0.1583	0.2608	0.2836
		p-value	0.02915	0.09889	0.3834	0.9402	0.2321	0.5936	0.5051	0.2667	0.2255
	movement	ρ	-0.08556	0.3625	0.1942	0.1898	0.1932	0.03563	0.1251	0.08421	-0.005304
		p-value	0.7199	0.1162	0.4119	0.4227	0.4144	0.8814	0.5994	0.7241	0.9823
	body position	ρ	-0.06614	0.3910	0.3168	0.1517	-0.1331	0.06924	0.2069	-0.1333	-0.1063
		p-value	0.7817	0.08824	0.1735	0.5233	0.5760	0.7718	0.3815	0.5752	0.6556
	oral	ρ	0.3387	0.1582	0.3203	0.2835	0.1738	0.2493	0.2515	0.2019	0.1668
		p-value	0.1440	0.5052	0.1686	0.2258	0.4636	0.2891	0.2847	0.3932	0.4821
	conduct	ρ	0.001677	0.2810	-0.1069	-0.03553	-0.1816	0.003410	0.1319	0.09510	0.06404
		p-value	0.9944	0.2301	0.6537	0.8818	0.4436	0.9886	0.5794	0.6900	0.7885
	social emotion	ρ	0.1393	0.1618	-0.02183	-0.07271	-0.04100	-0.05349	0.006506	0.008103	0.09310
		p-value	0.5579	0.4957	0.9272	0.7606	0.8637	0.8228	0.9783	0.9730	0.6962
	attentional	ρ	0.1955	0.6850 ***	0.1789	0.2630	-0.01039	0.3420	0.4814 *	0.1697	0.1857
		p-value	0.4089	8.597e -4	0.4504	0.2627	0.9653	0.1399	0.03164	0.4743	0.4331

* $p < 0.05$. ** $p < 0.01$. ***$p < 0.001$.

Table S4. Correlations between Adaptive and Sensory Profile

Variable			seeking	avoiding	sensitivity	registration	auditory	visual	touch	movement	body position	oral	conduct	social emotion	attentional
								Sensory Profile 2							
Vineland-II	Communication	ϱ	-0.03228	0.1382	-0.3102	-0.5215 *	-0.2080	0.1546	-0.1434	-0.1779	-0.5460 *	-0.2101	0.07537	0.1515	-0.4906
		p-value	0.9055	0.6098	0.2422	0.03831	0.4395	0.5676	0.5963	0.5097	0.02868	0.4347	0.7814	0.5753	0.05366
	Daily Lining	ϱ	0.03901	0.1220	-0.2324	-0.3005	-0.2210	0.08470	-0.06984	-0.07819	-0.3906	-0.06185	0.2310	0.06376	-0.3798
		p-value	0.8860	0.6527	0.3864	0.2582	0.4107	0.7551	0.7972	0.7735	0.1346	0.8200	0.3894	0.8145	0.1468
	Sociality	ϱ	0.04230	0.1205	-0.2489	-0.2942	-0.2286	0.07092	-0.07071	-0.1003	-0.3812	-0.07739	0.2295	0.07528	-0.3557
		p-value	0.8764	0.6567	0.3526	0.2687	0.3945	0.7941	0.7947	0.7118	0.1451	0.7758	0.3924	0.7817	0.1763

* $p < 0.05$.

Table S5. Correlations between Stereotipy Severity Scale, Problem Behavior Inventory – short version and Sleep Disturbance Scale for Children

Variable			Stereotypy Severity Scale						Problem Behavior Inventory – short version			
			number	frequency	intensity	interference	global	SSS	SIB	SIB	AB	AB
Sleep Disturbance Scale for Children	DIMS	ϱ	0.077	0.330	0.401	0.321	0.433	0.182	0.649**	0.537*	-0.085	-0.043
		p-value	0.747	0.155	0.080	0.168	0.056	0.443	0.002	0.015	0.723	0.858
	SBD	ϱ	0.311	0.608**	0.679***	0.470*	0.462*	0.109	0.612**	0.540*	0.276	0.234
		p-value	0.182	0.004	0.001	0.036	0.040	0.647	0.004	0.014	0.239	0.320
	DA	ϱ	-0.130	0.514*	0.589**	0.460*	0.365	0.409	0.544*	0.605**	-0.134	-0.193
		p-value	0.586	0.020	0.006	0.041	0.114	0.074	0.013	0.005	0.573	0.416
	SWTD	ϱ	0.066	0.356	0.194	0.071	0.342	0.287	0.190	0.365	-0.041	-0.097
		p-value	0.782	0.123	0.413	0.766	0.140	0.221	0.423	0.113	0.865	0.683
	DOES	ϱ	-0.102	0.034	0.326	0.226	0.195	0.414	0.229	0.275	-0.174	-0.194
		p-value	0.669	0.888	0.161	0.338	0.410	0.069	0.332	0.241	0.464	0.413
	SHY	ϱ	-0.163	-0.262	-0.123	-0.143	-0.094	0.082	-0.169	-0.243	-0.112	-0.163
		p-value	0.493	0.264	0.607	0.548	0.694	0.731	0.475	0.301	0.637	0.491
	TOTAL	ϱ	0.001	0.368	0.400	0.215	0.354	0.414	0.467*	0.467*	-0.089	-0.084
		p-value	0.997	0.111	0.081	0.362	0.126	0.070	0.038	0.038	0.709	0.726

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

Table S6. Correlations between Sensory Profile 2 and Sleep Disturbance Scale for Children

Variable			seeking	avoiding	sensitivity	registration	auditory	visual	touch	movement	body	oral	conduct	social	attentional
								Sensory Profile - 2							
Sleep Disturbance Scale for Children	DIMS	ϱ	-0.130	0.044	0.156	0.202	0.172	-0.081	0.043	-0.113	0.034	0.047	-0.051	0.216	0.084
		p-value	0.586	0.854	0.511	0.393	0.468	0.734	0.858	0.636	0.885	0.844	0.831	0.360	0.724
	SBD	ϱ	-0.005	-0.054	0.293	0.329	0.179	-0.058	0.169	-0.083	0.050	0.230	-0.025	0.006	0.143
		p-value	0.983	0.820	0.209	0.157	0.451	0.807	0.475	0.728	0.836	0.330	0.917	0.979	0.548
	DA	ϱ	0.197	-0.056	0.239	0.512 *	0.242	-0.304	0.208	0.376	0.447*	0.244	0.098	-0.223	0.429
		p-value	0.405	0.813	0.310	0.021	0.305	0.193	0.378	0.103	0.048	0.299	0.681	0.344	0.059
	SWTD	ϱ	0.074	0.048	0.201	0.480*	0.073	-0.068	0.194	0.270	0.372	0.018	0.163	0.028	0.336
		p-value	0.758	0.840	0.395	0.032	0.759	0.776	0.413	0.250	0.106	0.939	0.492	0.905	0.148
	DOES	ϱ	-0.064	-0.169	0.376	0.349	0.280	-0.194	0.058	-0.055	0.199	0.331	0.070	-0.120	0.094
		p-value	0.788	0.476	0.102	0.132	0.232	0.412	0.807	0.819	0.401	0.155	0.769	0.614	0.695
	SHY	ϱ	0.018	-0.299	-0.283	-0.183	-0.247	-0.029	-	-0.110	-0.285	0.086	0.116	-0.055	-0.380
		p-value	0.939	0.201	0.226	0.439	0.294	0.903	0.668	0.644	0.223	0.719	0.627	0.818	0.098
	TOTAL	ϱ	0.028	-0.128	0.194	0.473*	0.164	-0.242	0.156	0.074	0.237	0.185	0.101	0.017	0.230
		p-value	0.908	0.590	0.413	0.035	0.489	0.305	0.511	0.757	0.314	0.435	0.673	0.944	0.330

$* p < 0.05.$