

Body Brain Center Sensory Scales (BBCSS) Scoring Document

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Development and psychometric properties described in:

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1 Subscale Overview

Domain	Subscale	Description	Item Count
Auditory	Auditory Hypersensitivity	Sensitivity for sounds related to auditory danger signals (sharing acoustic features with evolutionary distress or predator sounds)	9
	Auditory Hyposensitivity to Voices	Reduced sensitivity for speech or voices (Higher scores = lower sensitivity)	5
Visual	Visual Hypersensitivity	Sensitivity to light and movement	10
Touch	Tactile Hypersensitivity	Sensitivity to non-social touch	10
	Affiliative Touch Aversion	Negative response to social touch	3
Ingestive & Digestive	Selective Eating	Selectivity in food choices (i.e. picky eating)	6
	Ingestive Problems	Problems with swallowing and retaining food	3
	Digestive Problems	Problems with digestion	4

2 Scoring

To score, assign numeric values to responses. Do not assign a value for “Not Sure/Not Applicable”. Note that all item values are in descending order from the way they appear on the form (reversed):

4	3	2	1	[Do not score]
Almost Always	Frequently/ Often	Sometimes/ Occasionally	Almost Never	Not Sure/ Not Applicable

Next, take the mean of items in each subscale, as outlined in the following table. Missing value imputation may be used if needed. The resulting subscale scores range from 1 (low impairment/problem) to 4 (high problem/impairment).

3 Item Subscale Scoring: Overview

Please note that there are two versions of the sensory scales. Version 1 is a longer form which includes items that assess age of onset of behaviors, history of ear infections, history of cry/reflux, and parent concerns. Version 2 is composed of only the 50 items used for subscale scoring.

	Version 1 Scoring	Version 2 Scoring
Auditory Hypersensitivity	A1, A2, A3, A5, A7, A9, A12, A13, A14	1, 2, 3, 5, 7, 10, 12, 13, 14
Auditory Hyposensitivity to Voices	A4, A6, A8, A9, A11	4, 6, 8, 9, 11
Visual Hypersensitivity	V1, V2, V3, V4, V5, V7, V8, V9, V10, V12	15, 16, 17, 18, 19, 20, 21, 22, 23, 24
Tactile Hypersensitivity	T1, T2, T3, T4, T5, T6, T7, T8, T14, T15	25, 26, 27, 28, 29, 30, 31, 32, 36, 37
Affiliative Touch Aversion	T9, T10, T11	33, 34, 35
Selective Eating	E1, E2, E3, E4, E14, E15	38, 39, 40, 41, 49, 50
Ingestive Problems	E5, E6, E11	42, 43, 48
Digestive Problems	E7, E8, E9, E10	44, 45, 46, 47

4 Item Numbers and Text by Subscale

v1 Item	v2 Item	Auditory Hypersensitivity: Sensitivity for sounds related to auditory danger signals (sharing acoustic features with evolutionary distress or predator sounds)
A1	1	responds negatively to unexpected or loud noises (for example, hides or cries at noise from ambulance, train, fire or car alarm, fireworks)
A2	2	becomes distracted, or has difficulty following verbal instructions when there is a lot of noise around
A3	3	holds his/her hands over the ears
A5	5	has trouble working with background noise (for example, air conditioner, traffic noises, airplanes)
A7	7	is unusually angry or frightened or appears in pain when others cry or scream
A9	10	seems overly aware, distracted, or disturbed by continuous noise in the environment (for example, TV, stereo)
A12	12	startles easily at sound, compared to others the same age, with loud or high-pitched noises (for example, vacuum, blender, fire alarms)
A13	13	is distracted by sounds not normally noticed by other people (for example, air conditioning fans, trains or planes outside)
A14	14	responds negatively (i.e. tantrums, becomes distracted or anxious) when entering places with continuous background noises (for example, grocery stores, schools, shopping malls)

v1 Item	v2 Item	Auditory Hyposensitivity to Voices: Reduced sensitivity for speech or voices (Higher scores = greater reduction)
A4	4	appears not to hear what I say (for example, does not seem to pay attention to what I say, appears to ignore me)
A6	6	does not respond when his/her name is called, even though I know my child's hearing is not a problem
A8	8	I have to speak loudly or get very close to my child's face to get my child's attention
A9	9	seems unaware of continuous noise in the environment (for example, TV, stereo)
A11	11	takes a long time to respond when spoken to, even to familiar voices

v1 Item	v2 Item	Visual Hypersensitivity: Sensitivity to light and movement
V1	15	is bothered by bright lights after my eyes or other children's eyes have adapted to the same light
V2	16	covers his/her eyes or squints
V3	17	seems unable to tolerate bright lights
V4	18	seems unable to tolerate flashing lights
V5	19	gets fussy when exposed to bright lights
V7	20	seems sensitive to bright lights (for example, cries or closes eyes)
V8	21	seems sensitive to flashing lights (for example, cries or closes eyes)
V9	22	hesitates to go outside when sunny
V10	23	seems easily distracted by movement he/she can see
V12	24	seems easily distracted by movements of objects (i.e. mechanical toys or cars)

v1 Item	v2 Item	Tactile Hypersensitivity: Sensitivity to non-social touch
T1	25	seems distressed by tooth-brushing
T2	26	seems distressed by face-washing
T3	27	seems distressed by fingernail-cutting
T4	28	seems distressed by hair-brushing
T5	29	insists that labels or tags be removed from most clothing
T6	30	refuses to wear certain fabrics or cries or fusses in response to wearing certain fabrics
T7	31	complains that certain garments are too tight or scratchy
T8	32	prefers to not wear clothing
T14	36	reacts emotionally or aggressively when touching very cold objects with his/her hands
T15	37	reacts emotionally or aggressively when very cold objects touch his/her face

v1 Item	v2 Item	Affiliative Touch Aversion: Negative response to social touch
T9	33	resists hugging
T10	34	reacts negatively or aggressively to hand-holding
T11	35	reacts emotionally or aggressively to being touched

v1 Item	v2 Item	Selective Eating: Selectivity in food choices (i.e. picky eating)
E1	38	avoids certain tastes
E2	39	resists certain textures of food
E3	40	avoids certain food smells
E4	41	resists certain temperatures of food
E14	49	sucks on objects other than food (for example, pacifier, own tongue, thumb)
E15	50	eats (or wants to eat) significantly less than I think is appropriate for his/her size or age

v1 Item	v2 Item	Ingestive Problems: Problems with swallowing and retaining food
E5	42	gags
E6	43	vomits
E11	48	seems to have difficulty swallowing solid foods

v1 Item	v2 Item	Digestive Problems: Problems with digestion
E7	44	has acid reflux
E8	45	has excessive intestinal gas
E9	46	becomes constipated
E10	47	experiences stomach or intestinal cramping