

Supplemental Material S1. Features of the assessment tools evaluating prosody perception.

Assessment tools	Aim	Targeted population	Types of prosody	Subsets	Scoring	Estimated time to complete test
Minnesota Tests of Affective Processing (MNTAP) (Lai et al., 1991)	To evaluates emotion recognition and discrimination in faces and speech samples for children with attention-deficit hyperactivity disorder (ADHD)	Children (6–11)	Affective	<p><u>4 auditory subsets:</u> Prosody/content preference, Lexical comprehension, Prosody/content congruence, Cross-modal matching</p> <p><u>11 visual subsets:</u> Training task, Identity match 1, Identity match 2, Faces teaching, Affect match, Affect naming, Affect choice, Gesture recognition, Localization memory, Face and object recognition memory, Sequential Face Pairs Memory</p>	Speech stimuli are delivered in the form of recorded samples and visual stimuli displayed on the screen. Then, the accuracy of participants' responses is calculated.	2–3 hours
Aprosodia battery (Ross et al., 1997)	<p>1- To distinguish different patterns of affective-prosodic deficits in patients with neurological disorders.</p> <p>2- To assess expression of affective prosody</p>	Adults (> 17)	Affective	<p>1- <u>Affective–prosodic comprehension and discrimination:</u> (Word comprehension, monosyllabic comprehension, asyllabic comprehension)</p> <p>2- <u>Affective–prosodic production:</u> (Word repetition, monosyllabic repetition,</p>	<p><u>For calculating receptive prosody:</u> The number of correct responses for word comprehension, monosyllabic comprehension, asyllabic comprehension, with each score ranging from 0 to 24</p> <p><u>For calculating expressive prosody:</u></p>	One hour

				asyllabic repetition, spontaneous affective prosody)	1- The computer-assisted techniques measures various aspects of intonation, timing, and intensity 2- Rating the accuracy of prosody production by expert	
Perception of Prosody Assessment Tool (PPAT) (Klieve et al., 1998)	To evaluate the prosody perception abilities of children with CI	Children (7–12)	Linguistic & Affective	<u>Apart from linguistic context:</u> 1- Pitch, intensity, duration <u>Within a linguistic context</u> 2- Question, statement, command forms 3- Tone and affect 4- Grammatical class 5- Stress 6- Compound and abutting words	Calculating the correct percentage of responses	One hour
Profiling Elements of Prosody in Speech-Communication (PEPS-C) (Peppé & McCann, 2003)	To assess understanding and expression of four communication areas with focus on prosody and intonation skills, including interaction, affect, boundary (chunking) and focus	Children (5–4) with autism; later it was applied for adults (18–52)	Linguistic & Affective	<u>6 subsets for prosody perception:</u> Short item discrimination, Turn-End reception, Affect reception, Long item discrimination, Chunking reception, Contrastive Stress Reception <u>6 subsets for prosody production:</u> Short Item imitation, Turn-End expression, Affect expression, Long item imitation, Chunking expression, Contrastive stress expression	Calculating the accurate responses via automatic scoring	One hour

Advanced Clinical Solution (ACS) (Pearson, 2009)	To evaluate social functioning deficits	Adult (16–70)	Affective	1- Facial affect recognition, 2- Affect naming, 3- Prosody-face matching, 4- Prosody-pair matching	Calculating the correct percentage of responses via manual scoring	45 minutes
Emotional Communication in Hearing Questionnaire (EMO-CHeQ) (Singh et al., 2019)	A 16-item self-reported scale to assess the experiences of hearing and handicap when listening to signals with vocal emotion information	Adults	Affective	1- characteristics of encountered talkers, 2- communication in challenging listening situations, 3- speech production (e.g., the ability to convey emotion in a subtle manner using one's own voice), and 4- the associated impact of such deficits on socioemotional well-being	Participants should indicate the level of agreement with each statement using the following rating scale: 1 = Strongly disagree; 2 = Slightly disagree; 3 = Neither agree nor disagree; 4 = Slightly agree; 5 = Strongly agree. Then the mean score for total items and each subdomain are computed. The higher scores indicate more difficulty.	Less than 15 minutes
Test of Prosody via Syllable Emphasis (TOPsy) (Nayak et al., 2022)	To measure lexical stress sensitivity in adults	Adults (18-88)	Linguistic	28 items that have been loaded onto two distinct factors corresponding to initially stressed vs. non-initially stressed word	The recordings of a multi-syllabic spoken word are administered over the internet or in lab settings. The participants are asked to identify the syllable that holds the main stress or emphasis in the word. Then, their scores are automatically calculated.	10 minutes