Supplemental Material S1. Table of comorbid conditions, categories, and rates of occurrence. Non-communication-related categories are indicated with an asterisk (*). Total *N* = 375.

Comorbid diagnosis	*n*	Category
Expressive language problems	359	Expressive language impairment
Receptive language delay	267	Receptive language impairment
Articulation deficit	213	Articulation deficit
Nonspeech oral apraxia	132	Nonspeech apraxia
Feeding difficulties	124	Feeding/swallowing problems
Global developmental delay	124	Cognitive impairment
Hypotonia	92	Hypotonia
Motor delay	92	Motor delay
Severe phonological impairment	85	Severe phonological disorder
Vision problems	64	*Vision-related
ADHD	63	Other communication-related
Developmental delay	50	Cognitive impairment
Seizure disorder NOS	49	Other communication-related
Adenoidectomy	45	*Other (non-communication-related)
Tonsillectomy	42	*Other (non-communication-related)
Sleep disturbance	39	*Other (non-communication-related)
Behavior problems	38	Mood/behavioral challenges
Craniofacial dysmorphism	34	Craniofacial dysmorphology
Cognitive delay	32	Cognitive impairment
Autism/PDD-NOS	31	Autism spectrum disorder
Velopharyngeal insufficiency	30	Velopharyngeal problems
Gastrointestinal problems	29	*Other (non-communication-related)
Hearing loss	29	Hearing impairment
Cardiac issues NOS	26	*Cardiac-related
Dysarthria	26	Childhood dysarthria
Spells	25	Other communication-related
Gastroesophageal reflux disorder	23	Feeding/swallowing problems
Anxiety	22	Mood/behavioral challenges
Chromosome abnormality NOS	20	Genetic syndrome
Intellectual disability	20	Cognitive impairment
Learning disability NOS	20	Cognitive impairment
Prematurity	20	*Other (non-communication-related)
Hypernasal	18	Childhood dysarthria
Digeorge syndrome (22q11.2 deletion)	16	Genetic syndrome
Failure to thrive	16	*Other (non-communication-related)
Cognitive impairment	15	Cognitive impairment
Down syndrome (trisomy 21)	15	Genetic syndrome
Cardiac atrial septal defect	13	*Cardiac-related

Microcephaly	13	Other communication-related
Sleep apnea	12	*Other (non-communication-related)
Urology problems	12	*Other (non-communication-related)
Epilepsy	11	Other communication-related
Strabismus	11	*Vision-related
Attention concerns	9	Other communication-related
Endocrine problems	9	*Other (non-communication-related)
Pulmonary problems	9	*Other (non-communication-related)
Allergies	8	*Other (non-communication-related)
Cleft palate	8	Craniofacial dysmorphology
Dyslexia	8	Literacy problems
Dysphagia	8	Feeding/swallowing problems
Muenke syndrome (*FGFR3* pathogenic variant c.749C>G)	8	Genetic syndrome
Sleep disordered breathing	8	*Other (non-communication-related)
Cardiac ventricular septic deficit	8	*Cardiac-related
Global apraxia	7	*Other (non-communication-related)
Hydrocephalus	7	*Other (non-communication-related)
Iron deficiency	7	*Other (non-communication-related)
Reflux	7	Craniofacial dysmorphology
Submucous cleft palate	7	*Other (non-communication-related)
Torticollis	7	Other communication-related
Neurofibromatosis	6	Other communication-related
Asthma	6	*Other (non-communication-related)
Cochlear implant	6	Hearing impairment
Frenulectomy	6	*Other (non-communication-related)
Joint hypermobility	6	*Other (non-communication-related)
Mood disorder NOS	6	Mood/behavioral challenges
Motor apraxia	6	Nonspeech apraxia
Plagiocephaly	6	*Other (non-communication-related)
Static encephalopathy	5	*Other (non-communication-related)
Angelman syndrome (15q11.2 microdeletion)	5	Genetic syndrome
Astigmatism	5	*Vision-related
Auditory neuropathy	5	Hearing impairment
Cardiac surgery	5	*Cardiac-related
Cerebral palsy	5	Other communication-related
Chiari malformation	5	*Other (non-communication-related)
Craniosynostosis	5	*Other (non-communication-related)
Disruptive behavior	5	Mood/behavioral challenges
Mild right hemiparesis	5	Neo- or perinatal stroke
Febrile seizure	4	*Other (non-communication-related)
16p11.2 deletion	4	Genetic syndrome

Ataxia	4	Cerebellar dysfunction
Bifid uvula	4	Craniofacial dysmorphology
Bronchomalacia	4	Craniofacial dysmorphology
Chromosomal anomaly NOS	4	Genetic disorder
Cleft lip	4	Craniofacial dysmorphology
Developmental coordination disorder	4	Other communication-related
Esotropia	4	*Other (non-communication-related)
Hypothyroidism	4	*Other (non-communication-related)
Kidney problems	4	*Other (non-communication-related)
Laryngomalacia	4	Craniofacial dysmorphology
Obsessional-compulsive disorder	4	Mood/behavioral challenges
Ocular motor apraxia	4	Nonspeech apraxia
Periventricular leukomalacia	4	*Other (non-communication-related)
Schizencephaly	4	Other communication-related
Sebaceous nevi syndrome	4	*Other (non-communication-related)
Sensory integration disorder	4	Other communication-related
Spasticity	4	Other communication-related
Subglottic stenosis	4	Craniofacial dysmorphology
Tracheomalacia	4	*Other (non-communication-related)
Tremor	4	*Other (non-communication-related)
Hearing aids	4	Hearing impairment
Velopharyngeal mislearning	4	Nonspeech apraxia
1p36 deletion	3	Genetic syndrome
Atypical pragmatics	3	Autism spectrum disorder
Chromosomal deletion NOS	3	Genetic syndrome
Cortical dysplasia	3	*Other (non-communication-related)
Dysphonia	3	Vocal problems
Executive functioning problems	3	Other communication-related
Hyponasal resonance	3	Childhood dysarthria
Hypoxic-ischemic encephalopathy	3	Other communication-related
Intrauterine growth retardation	3	Other communication-related
Mitochondrial disorder NOS	3	*Other (non-communication-related)
Prader-Willi (15q11.2-q13 deletion)	3	Genetic syndrome
Syndactyly	3	*Other (non-communication-related)
Microdeletion on chromosome 8	2	Genetic syndrome
Supraventricular tachycardia	2	*Other (non-communication-related)
Complex congenital heart disease	2	*Cardiac-related
Phelan-McDermid (22q13.3 deletion)	2	Genetic syndrome
Acute myeloid leukemia	2	*Other (non-communication-related)
Aphasia	2	Neo-or perinatal stroke
Atypical prosody	2	Autism spectrum disorder
Carnitine deficiency	2	*Other (non-communication-related)

Celiac disease	2	*Other (non-communication-related)
Cerebellar ataxia	2	Cerebellar dysfunction
Cerebellar hypoplasia	2	Cerebellar dysfunction
Congenital anomalies NOS	2	*Other (non-communication-related)
Delayed brain myelination	2	Other communication-related
Deletion of 7q31.2	2	Genetic syndrome
Duane syndrome (*CHN1* pathogenic variant)	2	Genetic syndrome
Exotropia	2	*Other (non-communication-related)
Eye problems	2	*Vision-related
Fluency	2	Dysfluency
Hoarse voice	2	Vocal problems
Hyperbilirubinemia	2	*Other (non-communication-related)
Hypertrichosis	2	*Other (non-communication-related)
Hypertrophic cardiomyopathy	2	*Cardiac-related
Impaired social interaction	2	Autism spectrum disorder
Metabolic disorder NOS	2	*Other (non-communication-related)
Micrognathia	2	Craniofacial dysmorphology
Nasal regurgitation	2	Feeding/swallowing problems
Oppositional disorder	2	Mood/behavioral challenges
Parkinsonism	2	*Other (non-communication-related)
Polydactyly	2	*Other (non-communication-related)
Posterior fossa cyst occupying a portion of the right cerebellum	2	Cerebellar dysfunction
Pyloric stenosis	2	*Other (non-communication-related)
Scoliosis	2	*Other (non-communication-related)
Selective mutism	2	Other communication-related
Spina bifida	2	*Other (non-communication-related)
Tracheostomy	2	Other communication-related
Worster-Drought syndrome	2	form of cerebral palsy
Bilateral temporal subarachnoid cyst with ventriculoperitoneal shunt	1	*Other (non-communication-related)
Hypogenesis of the corpus callosum with a lipoma	1	Other communication-related
Triplication of a 1.6-megabase segment in chromosome 4	1	Genetic syndrome
17p11.2 duplication	1	Genetic syndrome
Koolen de Vries (17q21.31 deletion)	1	Genetic syndrome
2q13 microdeletion syndrome	1	Genetic syndrome
46,XX,dup15q13.2-q13.3	1	Genetic syndrome
47 XXY karyotype	1	Genetic syndrome
Alcohol exposure in utero	1	Other communication-related
Arachnoid cyst	1	Other communication-related

Aural atresia	1	Hearing impairment
Behavioral feeding disorder	1	Mood/behavioral challenges
Benign familial megalencephaly	1	*Other (non-communication-related)
Bilateral craniosynostosis and multiple hemangiomas	1	*Other (non-communication-related)
Bilateral microtia	1	Hearing impairment
Bilateral polymicrogyria	1	*Other (non-communication-related)
Bipolar disorder	1	Mood/behavioral challenges
Borderline prolonged QT	1	*Cardiac-related
Cardiac failure	1	*Cardiac-related
Cardiomyopathy	1	*Cardiac-related
Cerebellar atrophy	1	Cerebellar dysfunction
CHARGE (CHD7 mutation)	1	Genetic syndrome
Chromosomal deletion of 2q33.1 to 33.3	1	Genetic syndrome
Chromosome 13 anomaly	1	Genetic syndrome
Chromosome deletion 4q35.5	1	Genetic syndrome
Chromosome variant 6p24.1	1	Genetic syndrome
Congenital cataracts	1	*Vision-related
Congenital cytomegalovirus infection	1	Other communication-related
Cystic encephalomalacia with associated gliosis	1	*Other (non-communication-related)
Cystic fibrosis	1	*Other (non-communication-related)
Deletion on chromosome 11	1	Genetic syndrome
Detached retina	1	*Vision-related
Distal arthrogryposis type V	1	*Other (non-communication-related)
Dysplasia	1	*Other (non-communication-related)
Emotional lability	1	Mood/behavioral challenges
FOXP2 pathogenic variant	1	Genetic syndrome
Galactosemia	1	Genetic syndrome
Gene mutation NOS	1	Genetic syndrome
Goldenhar syndrome (11q13 mutation)	1	Genetic syndrome
Hemihypertrophy	1	*Other (non-communication-related)
Hemi-megalencephaly	1	Other communication-related
HLA-B27 positive	1	*Other (non-communication-related)
Holoprosencephaly	1	Other communication-related
Hyperacusis	1	Hearing-related
Hyperglycemia	1	*Other (non-communication-related)
Intracranial hemorrhage	1	Neo- or perinatal stroke
Isochromosome 18p	1	Genetic syndrome
Joubert syndrome (*OFD1* pathogenic variant)	1	Genetic syndrome
Juvenile dermatomyositis	1	*Other (non-communication-related)
Kidney dysplasia	1	*Other (non-communication-related)
Kleefstra syndrome (9q34.3 deletion)	1	Genetic syndrome

Klinefelter syndrome (47,xxy)	1	Genetic syndrome
Landau-Kleffner Syndrome (*GRIN2A* pathogenic variant)	1	Genetic syndrome
Malocclusion	1	Craniofacial dysmorphology
MECP2 gene mutation	1	Genetic syndrome
Methylmalonic acidemia	1	*Other (non-communication-related)
Micro-duplication of 17q12	1	Genetic syndrome
Microdeletion in chromosome 1q21.1	1	Genetic syndrome
Microphthalmia	1	*Vision-related
Mitochondrial complex I deficiency	1	*Other (non-communication-related)
Mosaic methylation defect	1	*Other (non-communication-related)
Mosaic trisomy 9	1	Genetic syndrome
Motor tics	1	Other communication-related
Muscle weakness	1	Hypotonia
Nasal emission	1	Velopharyngeal problems
Neonatal stroke and seizures	1	Neo- or perinatal stroke
Neurocutaneous melanosis	1	*Other (non-communication-related)
Partial seizure disorder	1	Other communication-related
Periodic fever syndrome	1	*Other (non-communication-related)
Phoneme specific nasal emission	1	Velopharyngeal problems
Pigmentary retinopathy	1	*Vision-related
Pilocytic astrocytoma	1	Other communication-related
Polysubstance exposure in utero	1	*Other (non-communication-related)
Pulmonary atresia	1	*Other (non-communication-related)
Rheumatologic disease	1	*Other (non-communication-related)
Ring chromosome 16 syndrome	1	Genetic syndrome
Rubinstein-Taybi syndrome	1	Genetic syndrome
Sleep myoclonus	1	*Other (non-communication-related)
Stridor	1	Vocal problems
Subglottic hemangioma	1	Other communication-related
Tongue tie	1	*Other (non-communication-related)
Tracheobronchomalacia	1	*Other (non-communication-related)
Trisomy 10	1	Genetic syndrome
Trisomy 16	1	Genetic syndrome
Usher syndrome type 1	1	Genetic syndrome
Vocal abuse	1	Vocal problems
Vocal fold paralysis	1	Vocal problems
Wolff-Parkinson-White syndrome (*PRKAG2* pathogenic variant)	1	Genetic syndrome
X-linked cognitive disability	1	Cognitive impairment
X-Y chromosome translocation	1	Genetic syndrome
XYY aneuploidy	1	Genetic syndrome