



Orofacial function of persons having Severe language impairment

Report from observation charts

The survey comprises 24 observation charts.

Estimated occurrence: 1–2% of all preschool-aged children. 2–4 times more common among boys. It is estimated that 5% of all 3-5 year olds have speech and language disorders and of these 0.5-1% have severe language disorders.

Etiology: The cause of speech and language disorders is still unknown. Many research studies have shown that hereditary factors play an important role in the development of language disorders. Oftentimes a number of members of the same family exhibit delayed speech and language development and/or reading and writing difficulties. No association between repeated ear infections and language disorders has been found. Speech and language disorders seldom occur as isolated functional impairments. A number of different contributing factors have been discussed, among them: complications during pregnancy/birth, preterm birth, growth impaired/ malnurtured at birth.

General symptoms: Severe language disorders are characterized by problems at a variety of language levels, such as phonology, lexicon, grammar, language comprehension and pragmatics. Oftentimes there are also other difficulties, such as attention and concentration deficits, problems with motor skills and difficulties in social relations.

Orofacial/odontological symptoms: Children with speech and language disorders have no specific problems with their teeth or bite, but oral motor difficulties often occur. Children with speech and language disorders commonly have dyspraxia. *Verbal dyspraxia* is distinguished from *oral dyspraxia*. In the former, the difficulties are associated with the planning or programming of motor-speech movements required to produce speech, whereas in the latter the child has general difficulties in volitional control of oral motor processing.

Orofacial/odontological treatment: It is important that children with speech and language difficulties be evaluated and treated by a speech therapist at an early age. Early help has been shown to be an important factor in determining speech development in children with speech and language disorders. Children with oral/ verbal dyspraxia need continual speech training in order for speech to become automatized. The child should have regular contact with a speech-language pathologist that both conducts treatment and can instruct parents and school personnel in how to help the child to train at home and at school.

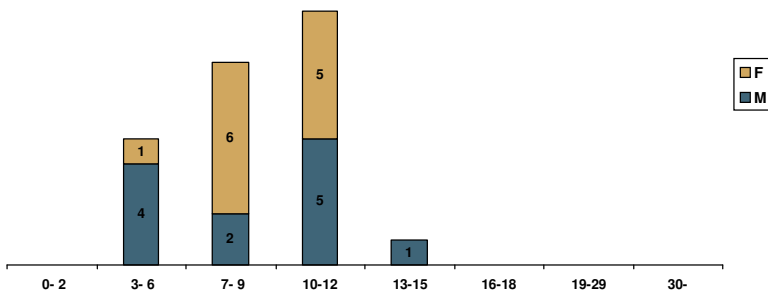
Sources:

Ågrenska's Newsletter (Swedish)

MHC-basen - Mun-H-Center's database of orofacial manifestations in rare disorders.

Selassie GR et al. Comorbidity in severe developmental language disorders: neuropsychiatric and psychological considerations. *Acta Paediatr.* 2005 Apr; 94(4):471-8.

Age distribution

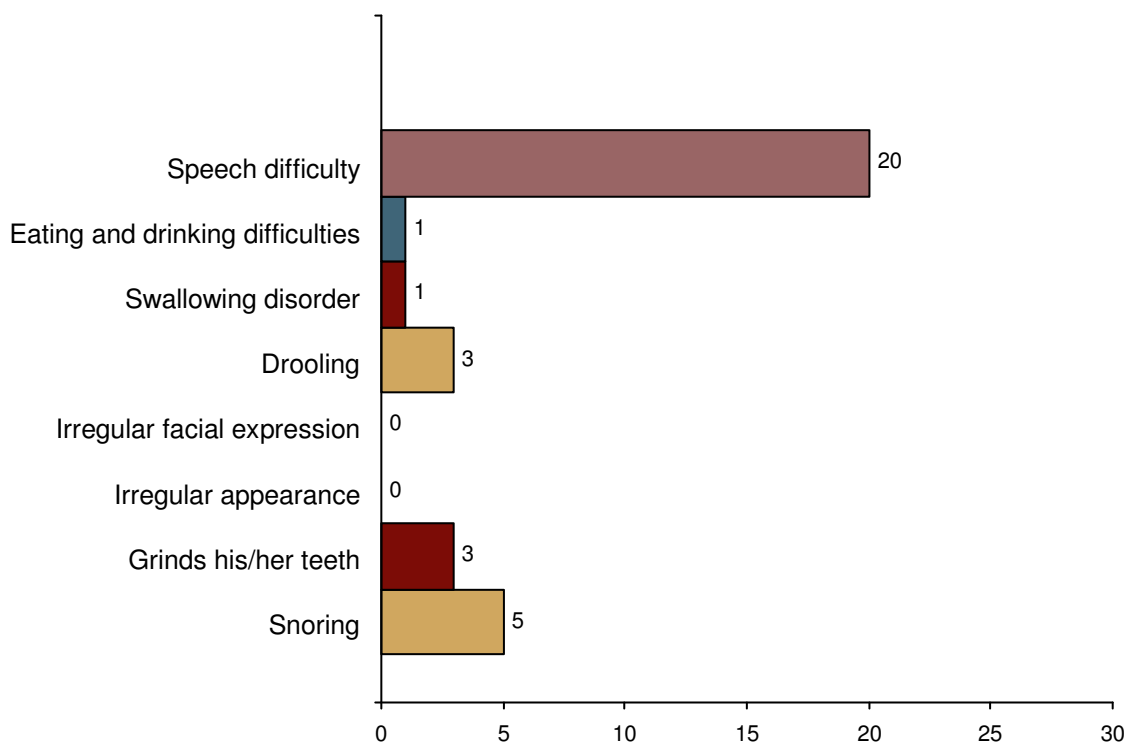


Number: 24

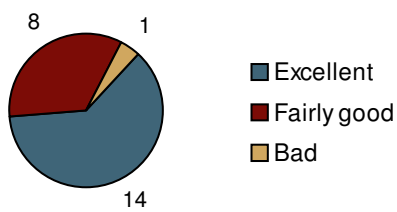
Ages: 5 -- 13 years

Sex: M (12) + F (12)

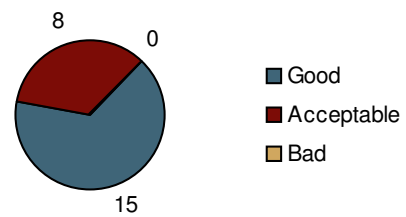
Orofacial problems



Oral health

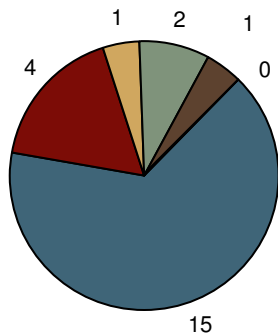


Oral hygiene



Behaviour in the treatment situation

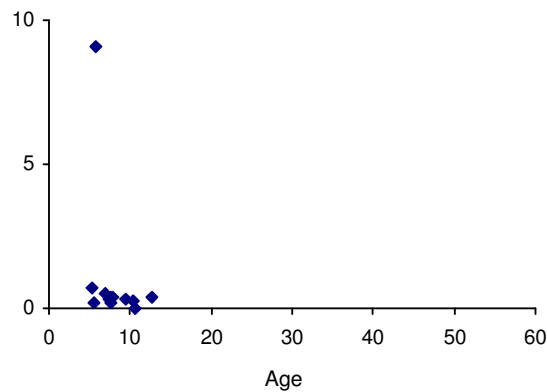
How calm and co-operative is the patient at time of examination?



- (15) ■ Examination is possible without problem
- (4) ■ Examination is possible without problems, some reaction is observed
- (1) ■ Examination can continue if adjusted to patient's reactions
- (2) ■ Reactions are considerable and examination is obviously affected
- (1) ■ Examination is practically impossible to complete
- (0) ■ Patient refuses examination

How does the patient cope with treatment in general?

0=no problems/10=great problems

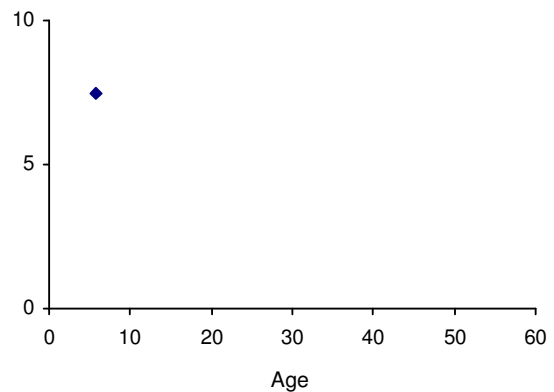
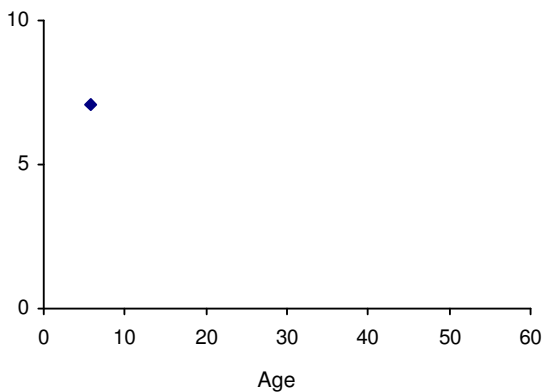


If there are treatment problems:

To what degree are the problems, if any, due to NN's handicap? To what degree are the problems, if any, due to NN's fear?

0=not at all/10=to a very high degree

0=not at all/10=to a very high degree



Clinical findings	Total N=24	Boys/Men N=12	Girls/Women N=12	Not evaluated
Speech difficulty	20	10	10	1
Hypomineralisation	12	7	5	0
Open mouth at rest	8	4	4	1
Post normal bite	6	2	4	0
Reduced mobility in tongue	6	3	3	1
Gingivitis	5	2	3	0
Horizontal over-bite 6 mm or more	5	3	2	0
Abrasion - insignificant	4	0	4	0
Mask-like expression	4	4	0	0
Cross bite	3	1	2	0
Deep bite with gingival contact	3	1	2	0
Deep bite without gingival contact	3	1	2	0
Deviation on opening	3	1	2	0
Drooling	3	2	1	1
Frontal inversion	3	3	0	0
Grinds his/her teeth	3	0	3	0
Mouth breathing	3	2	1	1
Retroclined upper incisors	3	2	1	0
Low muscle tone in tongue	2	1	1	0
Narrow palate	2	1	1	1
Over crowding	2	0	2	0
Philtrum seems long	2	2	0	1
Posturing forward	2	2	0	0
Pre normal bite	2	2	0	0
Retroclined lower incisors	2	2	0	0
Cleft palate	1	1	0	1
Concave facial profile	1	1	0	0
Corner of mouth lowered	1	0	1	1
Dental trauma	1	1	0	0
Divided uvula	1	1	0	0
Edge to edge bite	1	1	0	0
Infra occlusion	1	1	0	0
Involuntary movement in tongue	1	1	0	0
Low muscle tone in lower lip	1	1	0	1
Low muscle tone in upper lip	1	1	0	1
Lower jaw seems small	1	0	1	0
Philtrum seems short	1	0	1	1
Reduced mobility in soft palate	1	1	0	1
Scissor bite	1	1	0	0
Spacing	1	1	0	0
Tongue between front teeth	1	1	0	0
Tongue seems small	1	0	1	0
Upper jaw seems large	1	1	0	0
Upper jaw seems small	1	0	1	0
Wide palate	1	1	0	1