

## Supplementary documents:

Table I – The Child Perceptions Questionnaire subscales for 8 to 10-year-old children (CPQ8–10).

OHRQoL	CPQ <sub>8-10</sub> (Over all)	Oral Symptoms	Functional Limitation	Emotional Well-Being	Social Well-Being
Number of items	25	5	5	5	10
Possible range	0-100	0-20	0-20	0-20	0-40
Observed range	0-43	0-15	0-8	0-20	0-13
Mean (±SD)	9.7 (±8.5)	4.8 (±3.1)	1.7 (±2.2)	1.8 (±3.5)	1.4 (±2.7)
<b>Posterior open-bite</b>					
No – mean (±SD)	9.4 (±9.2)	4.7 (±2.9)	1.5 (±2.2)	1.8 (±3.9)	1.4 (±2.8)
Yes – mean (±SD)	10.8 (±6.5)	5.3 (±3.3)	2.5 (±1.9)	1.5 (±2.2)	1.6 (±2.3)
<b>Anterior open-bite</b>					
No – mean (±SD)	8.8 (±7.9)	4.7 (±1.9)	1.5 (±1.8)	1.7 (±3.6)	1.0 (±2.0)
Yes – mean (±SD)	10.3 (±9.3)	4.9 (±3.1)	1.8 (±2.3)	2.0 (±3.9)	1.6 (±3.1)
Missing – mean (±SD)	7.8 (±5.7)	4.5 (±3.5)	1.6 (±1.9)	0.9 (±0.9)	0.8 (±1.0)
<b>Posterior cross-bite (No)</b>					
No – mean (±SD)	9.4 (±8.2)	4.7 (±2.9)	1.7 (±2.3)	1.7 (±2.9)	1.2 (±2.3)
Yes – mean (±SD)	10.3 (±9.4)	5.1 (±3.3)	1.7 (±2.0)	1.8 (±4.4)	1.8 (±3.3)
<b>Anterior cross-bite</b>					
No – mean (±SD)	8.6 (±7.5)	4.7 (±3.5)	1.5 (±2.2)	1.2 (±1.9)	1.2 (±2.2)
Yes – mean (±SD)	11.8 (±10.1)	5.1 (±2.2)	2.1 (±2.2)	2.9 (±5.2)	1.8 (±3.4)
<b>Angle's classification</b>					
CI I – mean (±SD)	7.5 (±8.3)	4.2 (±3.8)	1.5 (±2.2)	0.9 (±1.2)	0.9 (±2.1)
CI III – mean (±SD)	10.8 (±9.5)	4.7 (±2.7)	1.9 (±2.4)	2.3 (±4.4)	1.9 (±3.1)
Other – mean (±SD)	9.7 (±4.1)	6.2 (±2.8)	1.2 (±1.5)	1.4 (±1.8)	0.7 (±1.3)

Results are shown as n or mean (±SD).

Statistical analysis: Welch's t-test, results have been confirmed by Mann-Whitney U test (non-parametric test).

Table II – The Child Perceptions Questionnaire subscales for 11 to 14-year-old children (CPQ11-14).

OHRQoL	CPQ <sub>11-14</sub> (Over all)	Oral Symptoms	Functional Limitation	Emotional Well-Being	Social Well-Being
Number of items	37	6	9	9	13
Possible range	0-148	0-24	0-36	0-36	0-52
Observed range	1-53	1-11	0-19	0-20	0-19
Mean (±SD)	20.2 (±13.8)	6.4 (±3.1)	6.1 (±4.9)	4.6 (±6.2)	3.1 (±4.3)
<b>Posterior open-bite</b>					
No – mean (±SD)	18.9 (±13.5)	6.2 (±3.1)	4.2 (±4.3) *	4.4 (±6.1)	3.1 (±4.4)
Yes – mean (±SD)	23.4 (±14.3)	6.9 (±3.1)	8.2 (±5.6) *	5.1 (±6.3)	3.2 (±4.2)

Anterior open-bite					
No – mean ( $\pm$ SD)	17.8 ( $\pm$ 10.3)	7.0 ( $\pm$ 3.2)	7.3 ( $\pm$ 4.9)	2.2 ( $\pm$ 1.9)	1.3 ( $\pm$ 2.3)
Yes – mean ( $\pm$ SD)	20.1 ( $\pm$ 14.1)	6.4 ( $\pm$ 3.2)	6.1 ( $\pm$ 5.2)	4.7 ( $\pm$ 6.4)	2.9 ( $\pm$ 3.8)
Missing – mean ( $\pm$ SD)	22.5 ( $\pm$ 14.3)	6.2 ( $\pm$ 3.2)	5.1 ( $\pm$ 3.3)	5.7 ( $\pm$ 6.3)	5.5 ( $\pm$ 7.1)
Posterior cross-bite (No)					
No – mean ( $\pm$ SD)	15.8 ( $\pm$ 12.4) *	5.6 ( $\pm$ 3.1) *	4.6 ( $\pm$ 4.2) *	3.8 ( $\pm$ 5.9)	2.8 ( $\pm$ 4.3)
Yes – mean ( $\pm$ SD)	26.1 ( $\pm$ 12.7) *	7.9 ( $\pm$ 2.6) *	8.6 ( $\pm$ 5.0) *	5.9 ( $\pm$ 6.4)	3.7 ( $\pm$ 4.3)
Anterior cross-bite					
No – mean ( $\pm$ SD)	18.3 ( $\pm$ 13.9)	6.0 ( $\pm$ 3.2)	5.3 ( $\pm$ 4.4)	3.9 ( $\pm$ 6.1)	3.1 ( $\pm$ 4.5)
Yes – mean ( $\pm$ SD)	24 ( $\pm$ 13.2)	7.2 ( $\pm$ 2.9)	7.5 ( $\pm$ 5.5)	5.7 ( $\pm$ 6.1)	3.2 ( $\pm$ 4.0)
Angle's classification					
CI I – mean ( $\pm$ SD)	16.7 ( $\pm$ 11.8)	5.7 ( $\pm$ 2.6)	4.4 ( $\pm$ 3.8)	3.5 ( $\pm$ 5.4)	3.1 ( $\pm$ 4.7)
CI III – mean ( $\pm$ SD)	22.7 ( $\pm$ 14.4)	7.1 ( $\pm$ 3.3)	7.8 ( $\pm$ 5.5)	4.8 ( $\pm$ 6.4)	3.0 ( $\pm$ 3.9)
Other – mean ( $\pm$ SD)	21.1 ( $\pm$ 15.5)	6.3 ( $\pm$ 3.6)	5.0 ( $\pm$ 4.2)	6.3 ( $\pm$ 6.8)	3.5 ( $\pm$ 4.7)

Results are shown as n or mean ( $\pm$ SD).

Statistical analysis: Welch's t-test, results have been confirmed by Mann-Whitney U test (non-parametric test).

\* Statistically Significant findings at  $p < 0.05$ .