

**Additional file S4 – Mean OHRQoL ADD score according to orofacial pain, CHQ physical scores, and disease activity (JADAS71)**

**S4 Table 1.** Mean OHRQoL ADD scores according to orofacial pain

| No pain                                            |        |                      | Pain   |                         |                              |
|----------------------------------------------------|--------|----------------------|--------|-------------------------|------------------------------|
|                                                    |        | OHRQoL ADD score     |        | OHRQoL ADD score        |                              |
|                                                    | n/N    | Mean (SD) [95%CI]    | n/N    | Mean (SD) [95%CI]       | p-value                      |
| Children <12 years - mean ECOHIS ADD score         |        |                      |        |                         |                              |
| First Visit - Orofacial pain ever                  |        |                      |        |                         |                              |
| JIA                                                | 34/47  | 3.2 (4.2) [1.7-4.7]  | 13/47  | 5.0 (3.9) [2.6-7.4]     | 0.060 <sup>a</sup>           |
| Controls                                           | 48/54  | 2.0 (2.7) [1.2-2.7]  | 6/54   | 2.7 (3.0) [-0.8-5.8]    | 0.485 <sup>a</sup>           |
| p-value                                            |        | 0.193 <sup>a</sup>   |        | 0.179 <sup>a</sup>      |                              |
| First Visit - Orofacial pain last 30 days          |        |                      |        |                         |                              |
| JIA                                                | 40/47  | 3.7 (4.4) [2.3-5.0]  | 7/47   | 4.0 (2.9) [1.3-6.7]     | 0.219 <sup>a</sup>           |
| Controls                                           | 53/54  | 2.0 (2.6) [1.3-2.7]  | 1/54   | 6                       | 0.222 <sup>a</sup>           |
| p-value                                            |        | 0.063 <sup>a</sup>   |        | 0.500 <sup>a</sup>      |                              |
| 2-Year Follow-up - Orofacial pain ever             |        |                      |        |                         |                              |
| JIA                                                | 32/47  | 3.6 (4.0) [2.2-5.0]  | 15/47  | 6.9 (5.2) [4.0-9.8]     | <b>0.009<sup>a</sup></b>     |
| Controls                                           | 51/54  | 2.2 (2.6) [1.5-3.0]  | 3/54   | 9.0 (4.0) [-0.9-18.9]   | <b>0.005<sup>a</sup></b>     |
| p-value                                            |        | 0.116 <sup>a</sup>   |        | 0.338 <sup>a</sup>      |                              |
| 2-Year Follow-up - Orofacial pain last 30 days     |        |                      |        |                         |                              |
| JIA                                                | 37/47  | 3.7 (3.8) [2.4-4.9]  | 10/47  | 8.3 (5.8) [4.1-12.5]    | <b>0.008<sup>a</sup></b>     |
| Controls                                           | 52/54  | 2.3 (2.6) [1.5-3.0]  | 2/54   | 11.0 (2.8) [-14.4-36.4] | <b>0.004<sup>a</sup></b>     |
| p-value                                            |        | 0.056 <sup>a</sup>   |        | 0.546 <sup>a</sup>      |                              |
| Adolescents ≥ 12 years - mean Child OIDP ADD score |        |                      |        |                         |                              |
| First Visit - Orofacial pain ever                  |        |                      |        |                         |                              |
| JIA                                                | 63/110 | 0.5 (1.7) [0.1-1.0]  | 47/110 | 2.0 (3.2) [1.0-2.9]     | <b>&lt;0.001<sup>a</sup></b> |
| Controls                                           | 87/102 | 0.5 (1.4) [0.2-0.8]  | 15/102 | 0.7 (1.3) [-0.0-1.4]    | 0.440 <sup>a</sup>           |
| p-value                                            |        | 0.368 <sup>a</sup>   |        | 0.162 <sup>a</sup>      |                              |
| First Visit - Orofacial pain last 30 days          |        |                      |        |                         |                              |
| JIA                                                | 79/110 | 0.6 (1.6) [0.2-0.9]  | 31/110 | 2.7 (3.7) [1.3-4.0]     | <b>&lt;0.001<sup>a</sup></b> |
| Controls                                           | 99/102 | 0.5 (1.4) [0.2-0.8]  | 3/102  | 0.3 (0.6) [-1.1-1.8]    | 1.000 <sup>a</sup>           |
| p-value                                            |        | 0.616 <sup>a</sup>   |        | 0.364 <sup>a</sup>      |                              |
| 2-Year Follow-up - Orofacial pain ever             |        |                      |        |                         |                              |
| JIA                                                | 68/111 | 0.1 (0.4) [-0.0-0.2] | 43/111 | 1.3 (2.3) [0.5-2.0]     | <b>&lt;0.001<sup>a</sup></b> |
| Controls                                           | 85/102 | 0.2 (0.5) [0.0-0.3]  | 17/102 | 0.8 (1.6) [-0.0-1.6]    | <b>0.015<sup>a</sup></b>     |
| p-value                                            |        | 0.275 <sup>a</sup>   |        | 0.892 <sup>a</sup>      |                              |
| 2-Year Follow-up - Orofacial pain last 30 days     |        |                      |        |                         |                              |
| JIA                                                | 84/111 | 0.2 (0.9) [-0.0-0.4] | 27/111 | 1.6 (2.5) [0.6-2.5]     | <b>&lt;0.001<sup>a</sup></b> |
| Controls                                           | 96/102 | 0.3 (0.8) [0.1-0.4]  | 6/102  | 0.3 (0.5) [-0.2-0.9]    | 0.381 <sup>a</sup>           |
| p-value                                            |        | 0.293 <sup>a</sup>   |        | 0.486 <sup>a</sup>      |                              |

<sup>a</sup>Mann-Whitney U test. OHRQoL =oral health related quality of life. ADD scores =additive scores. JIA =juvenile idiopathic arthritis. n/N =number observed/total number assessed. SD =standard deviation. CI =confidence interval. ECOHIS =early childhood oral health impactation scale. Child OIDP =child oral impact on daily performances. P-values <0.05 are marked in bold.

**S4 Table 2.** Mean OHRQoL ADD scores according to CHQ physical scores

|                                                    |        | Normal CHQ PhS                  |        | Impaired CHQ PhS         |  |                                 |
|----------------------------------------------------|--------|---------------------------------|--------|--------------------------|--|---------------------------------|
|                                                    |        | OHRQoL ADD score                |        | OHRQoL ADD score         |  |                                 |
|                                                    | n/N    | mean (SD) [95%CI]               | n/N    | mean (SD) [95%CI]        |  | p-value                         |
| Children <12 years - mean ECOHIS ADD score         |        |                                 |        |                          |  |                                 |
| First Visit                                        |        |                                 |        |                          |  |                                 |
| JIA                                                | 37/46  | 3.2 (3.6) [1.9-4.4]             | 9/46   | 6.2 (5.5) [2.0-10.5]     |  | <i>0.066<sup>a</sup></i>        |
| Controls                                           | 52/52  | 2.1 (2.7) [1.3-2.8]             | 0/52   | -                        |  |                                 |
| <i>p-value</i>                                     |        | <i>0.106<sup>a</sup></i>        |        | -                        |  |                                 |
| 2-Year Follow-up                                   |        |                                 |        |                          |  |                                 |
| JIA                                                | 35/45  | 4.3 (4.5) [2.8-5.9]             | 10/45  | 6.5 (5.1) [2.8-10.2]     |  | <i>0.158<sup>a</sup></i>        |
| Controls                                           | 50/54  | 2.5 (2.8) [1.7-3.3]             | 4/54   | 4.0 (6.1) [-5.6-13.6]    |  | <i>0.765<sup>a</sup></i>        |
| <i>p-value</i>                                     |        | <b><i>0.048<sup>a</sup></i></b> |        | <i>0.282<sup>a</sup></i> |  |                                 |
| Adolescents ≥ 12 years - mean Child OIDP ADD score |        |                                 |        |                          |  |                                 |
| First Visit                                        |        |                                 |        |                          |  |                                 |
| JIA                                                | 82/106 | 0.8 (2.1) [0.3-1.2]             | 24/106 | 1.9 (2.7) [0.7-3.0]      |  | <b><i>0.023<sup>a</sup></i></b> |
| Controls                                           | 92/92  | 0.5 (1.3) [0.2-0.8]             | 0/92   | -                        |  |                                 |
| <i>p-value</i>                                     |        | <i>0.882<sup>a</sup></i>        |        | -                        |  |                                 |
| 2-Year Follow-up                                   |        |                                 |        |                          |  |                                 |
| JIA                                                | 71/99  | 0.1 (0.7) [0.1-0.3]             | 28/99  | 1.3 (2.6) [0.3-2.3]      |  | <b><i>0.004<sup>a</sup></i></b> |
| Controls                                           | 78/79  | 0.2 (0.6) [0.1-0.3]             | 1/79   | 0                        |  | <i>1.000<sup>a</sup></i>        |
| <i>p-value</i>                                     |        | <i>0.339<sup>a</sup></i>        |        | <i>1.000<sup>a</sup></i> |  |                                 |

<sup>a</sup>Mann-Whitney U test. OHRQoL =oral health related quality of life. ADD scores =additive scores. JIA =juvenile idiopathic arthritis. CHQ =child health questionnaire. PhS =physical scores. n/N =number observed/total number assessed (CHQ missing in 6 participants with JIA and 12 controls). ECOHIS =early childhood oral health impactation scale. Child OIDP =child oral impact on daily performances. SD =standard deviation. CI =confidence interval. P-values <0.05 are marked in bold.

**S4 Table 3.** Mean OHRQoL ADD scores according to JADAS71

|                                                   |        | JADAS71 <1           |        | JADAS71 ≥1          |  |                                     |
|---------------------------------------------------|--------|----------------------|--------|---------------------|--|-------------------------------------|
|                                                   |        | OHRQoL ADD score     |        | OHRQoL ADD score    |  |                                     |
|                                                   | n/N    | mean (SD) [95%CI]    | n/N    | mean (SD) [95%CI]   |  | p-value                             |
| Children <12 years - mean ECOHIS ADD score        |        |                      |        |                     |  |                                     |
| First Visit                                       |        |                      |        |                     |  |                                     |
|                                                   | 14/47  | 2.1 (3.6) [0.1-4.2]  | 33/47  | 4.4 (4.2) [2.9-5.9] |  | <b><i>0.038<sup>a</sup></i></b>     |
| 2-Year Follow-up                                  |        |                      |        |                     |  |                                     |
|                                                   | 17/46  | 3.5 (3.8) [1.6-5.5]  | 29/46  | 5.4 (5.1) [3.5-7.3] |  | <i>0.267<sup>a</sup></i>            |
| Adolescents ≥12 years - mean Child OIDP ADD score |        |                      |        |                     |  |                                     |
| First Visit                                       |        |                      |        |                     |  |                                     |
|                                                   | 40/107 | 0.3 (1.0) [-0.1-0.6] | 67/107 | 1.5 (2.7) [0.8-2.1] |  | <b><i>&lt;0.001<sup>a</sup></i></b> |
| 2-Year Follow-up                                  |        |                      |        |                     |  |                                     |
|                                                   | 40/103 | 0.2 (0.6) [-0.0-0.3] | 63/103 | 0.6 (1.6) [0.2-1.0] |  | <i>0.166<sup>a</sup></i>            |

<sup>a</sup>Mann-Whitney U test. OHRQoL =oral health related quality of life. ADD scores =additive scores. JIA =juvenile idiopathic arthritis. JADAS =juvenile arthritis disease activity score. n/N =number observed/total number assessed (CHQ missing in 6 participants with JIA and 12 controls). ECOHIS =early childhood oral health impactation scale. Child OIDP =child oral impact on daily performances. SD =standard deviation. CI =confidence interval. P-values <0.05 are marked in bold.