Does successful TMD-treatment improve concurrent headache complaints in TMD patients?
van der Meer, H.A.; Calixtre, L.B.; Engelbert, R.H.H.; Nijhuis-van der Sanden, M.W.G.; Speksnijder, C.M.; Visscher, C.M.

Link to publication

Citation for published version (APA):
Does successful TMD-treatment improve concurrent headache complaints in TMD patients? Preliminary results of a prospective cohort study.

H.A. van der Meer¹-⁵, L.B Calixtre⁶, R.H.H. Engelbert²,³, M.W.G. Nijhuis- van der Sanden¹, C.M. Speksnijder⁵, C.M. Visscher⁴

¹Radboud University Medical Center, Research Institute for Health Sciences, Nijmegen, the Netherlands; ²Amsterdam University of Applied Sciences, Faculty of Health, the Netherlands; ³Academic Medical Center, Department of Rehabilitation, Amsterdam, the Netherlands; ⁴Academic Center for Dentistry Amsterdam, Department of Oral Health Sciences, the Netherlands; ⁵University Medical Center Utrecht, Department of Oral-Maxillofacial Surgery, the Netherlands; ⁶Physiotherapy Department, Federal University of São Carlos, São Carlos, Brazil

**Introduction**

Temporomandibular disorders (TMD) and headache are co-morbid disorders.

It is unknown if a successful TMD-treatment will lead to an improvement of the headache.

The aim of this study is to establish the association between change in orofacial pain (OFP) and change in headache in patients with TMD-pain after TMD-treatment.

**Methods**

**Inclusion:**

Patients with TMD-pain and headache

**Baseline**

Multi-disciplinary usual care:
- Physical therapy, splint, counseling, psychology

**Follow-up 12 weeks**

**Outcomes (collected by email)**
- Graded Chronic Pain Scale (GCPS)
  - Chronic Pain Intensity (CPI)
  - Disability Score

**Results**

50 participants included: 40 women and 10 men. The mean age was 40.5 (SD 14.4). Myalgia was present in 28 people, arthralgia in 19.

<table>
<thead>
<tr>
<th>Headache Category</th>
<th>CPI</th>
<th>Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-reported headache (n=50)</td>
<td>0.585***</td>
<td>0.588***</td>
</tr>
<tr>
<td>Migraine (n=17)</td>
<td>0.661**</td>
<td>0.758***</td>
</tr>
<tr>
<td>Tension-Type headache (n=15)</td>
<td>0.398</td>
<td>0.326</td>
</tr>
<tr>
<td>Secondary headache attributed to TMD (n=14)</td>
<td>0.636*</td>
<td>0.569*</td>
</tr>
</tbody>
</table>

Table 1 – correlation coefficients of the association between the change in OFP scores and change in headache scores. *p<0.05; **p<0.01; ***p<0.001.

**Statistics**

- Change scores between baseline and 12 weeks
- Spearman’s rho correlation

**TAKE HOME MESSAGE**

- Successful TMD-treatment reduces concurrent headache complaints in patients with TMD-pain.
- Strongest association between changes found for patients with migraine.
- Patients with secondary headache attributed to TMD as well as patients with migraine benefit from a multidisciplinary TMD-treatment.

Contact: h.a.van.der.meer@hva.nl

**Funding:**

Netherlands Organisation for Scientific Research