

## Amsterdam University of Applied Sciences

### Psychosocial predictors for pain outcomes in patients with temporomandibular disorders and headaches

van der Meer, H.A.; Tol, C.H.M.; Engelbert, R.H.H.; Speksnijder, C.M.; Visscher, C.M.

**Publication date**  
2019

[Link to publication](#)

**Citation for published version (APA):**

van der Meer, H. A., Tol, C. H. M., Engelbert, R. H. H., Speksnijder, C. M., & Visscher, C. M. (2019). *Psychosocial predictors for pain outcomes in patients with temporomandibular disorders and headaches*. Poster session presented at International Headache Conference , Dublin, Ireland.

**General rights**

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

**Disclaimer/Complaints regulations**

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please contact the library:

<https://www.amsterdamuas.com/library/contact/questions>, or send a letter to: University Library (Library of the University of Amsterdam and Amsterdam University of Applied Sciences), Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

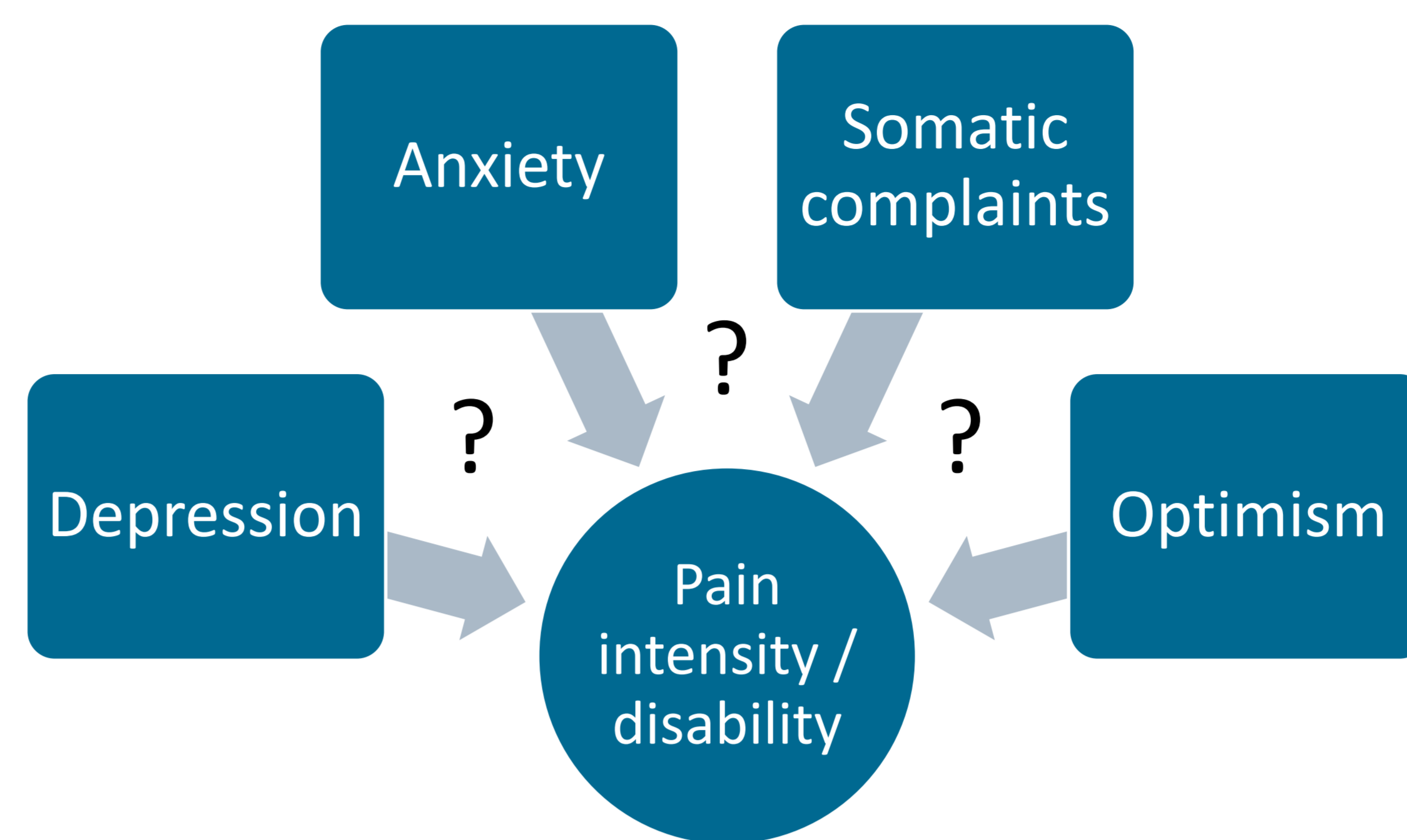
# Psychosocial predictors for pain outcomes in patients with temporomandibular disorders and headaches

H.A. van der Meer<sup>1-5#</sup>, C.H.M. Tol<sup>1#</sup>, R.H.H. Engelbert<sup>2,3</sup>, C.M. Speksnijder<sup>5</sup>, C.M. Visscher<sup>1</sup>

<sup>1</sup>Academic Center for Dentistry Amsterdam, Department of Oral Health Sciences, the Netherlands; <sup>2</sup>Amsterdam University of Applied Sciences, Faculty of Health, the Netherlands; <sup>3</sup>Amsterdam University Medical Center, Department of Rehabilitation, Amsterdam, the Netherlands; <sup>4</sup>Radboud University Medical Center, Research Institute for Health Sciences, Nijmegen, the Netherlands; <sup>5</sup>University Medical Center Utrecht, Department of Oral-Maxillofacial Surgery, the Netherlands; <sup>#</sup>These authors contributed to this manuscript equally.

## Introduction

- Temporomandibular disorders (TMD) and headache are co-morbid disorders.
- Patients with these disorders experience high pain intensity and pain-related disability.
- The influence of different psychosocial factors on pain intensity and pain-related disability in patients with TMD and headache is unknown (figure 1).

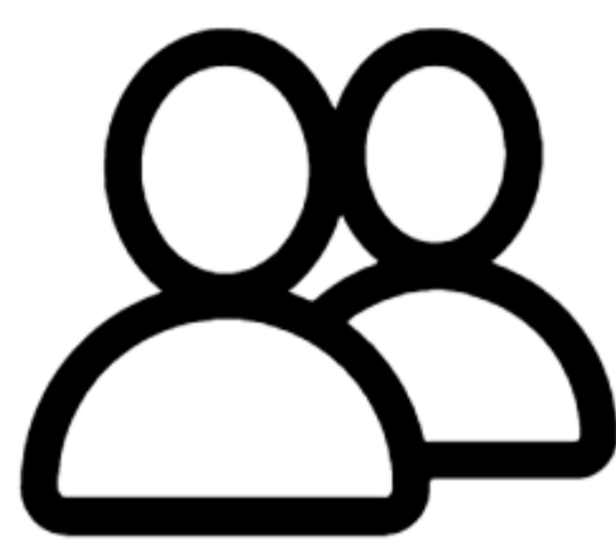


The aim of this study is to establish the influence of psychosocial factors on pain outcomes (intensity and disability) in patients with temporomandibular disorders and headaches.

Figure 1: unknown influence of psychosocial factors on pain outcomes

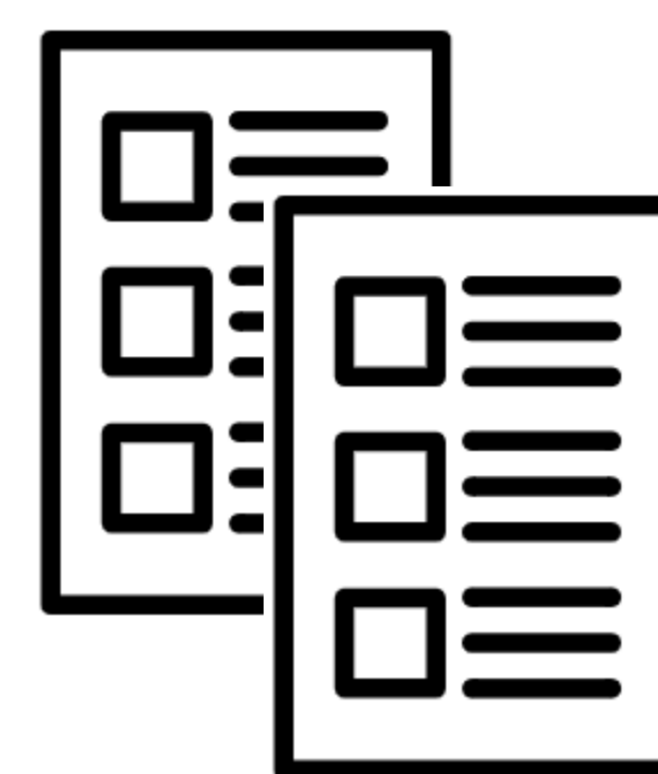
## Methods

### Design & Population:



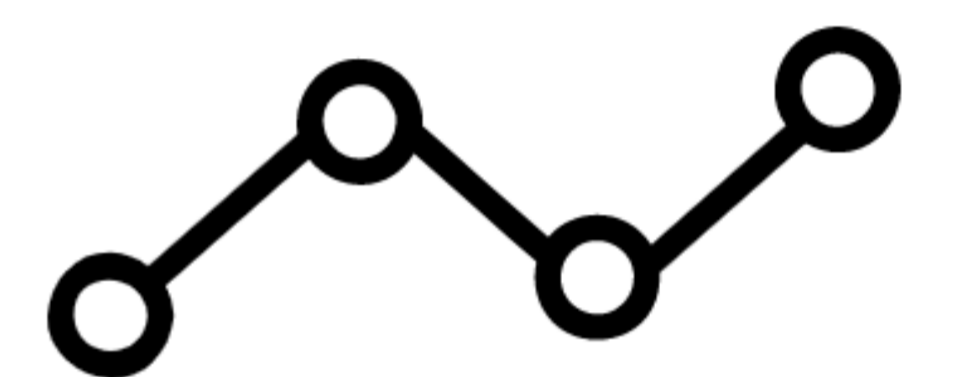
- Retrospective medical file study
- Patients with TMD-pain and headache (migraine, tension-type headache [TTH] or headache attributed to TMD [HATMD])

### Outcome measures:



- Numeric Pain Rating Scale (NPRS)
- Graded Chronic Pain Scale (GCPS)
- General Anxiety Disorder screener (GAD-7)
- Patient Health Questionnaire - somatic complaints (PHQ-15) and depression (PHQ-9)
- Life Orientation Test-Revised for optimism (LOT-R)

### Statistics:



- Linear Multiple Regression Analyses
  - Corrected for bruxism
- Stratified per headache type when substantiated
- SPSS version 24; p-value <.05 were significant

## Results

	Total study population (N = 323)	Migraine (N=80)	TTH (N=147)	HATMD (N=96)
Age; mean ± SD	42.88 ± 14.40	41.31 ± 13.03	43.67 ± 15.53	42.98 ± 13.71
Female; N(%)	197 (61%)	47 (58.8%)	87 (59.2%)	63 (65.6%)
Myalgia; mean ± SD	283 (87.6%)	72 (90%)	121 (82.3%)	90 (93.8%)
Arthralgia; mean ± SD	201 (62.2%)	49 (61.3%)	86 (58.8%)	66 (68.8%)
GAD-7; mean ± SD	5.54 ± 5.09	5.88 ± 4.64	4.48 ± 4.67	6.90 ± 5.72
PHQ-15; mean ± SD	10.48 ± 4.98	10.90 ± 4.10	9.03 ± 4.30	12.34 ± 5.90
PHQ-9; mean ± SD	6.93 ± 5.51	6.90 ± 5.01	5.99 ± 4.930	8.42 ± 6.40
LOT-R; mean ± SD	15.62 ± 4.71	15.34 ± 4.66	15.77 ± 4.68	15.64 ± 4.83

Table 1: characteristics of the study population

### Pain intensity

- HATMD; somatic complaints (R<sup>2</sup>: 14.8%)
- Migraine; optimism + depression + somatic complaints (R<sup>2</sup>: 19.0%)
- TTH; no significant factors present.

### Pain-related disability

- HATMD; somatic complaints (R<sup>2</sup>: 15.9%)
- Migraine; depression (R<sup>2</sup>: 6.7%)
- TTH; depression (R<sup>2</sup>: 20.3%)

## TAKE HOME MESSAGE

The presence of somatic complaints and / or depression are contributing to the extent of pain intensity and pain-related disability in TMD-patients with headache

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

Funding: