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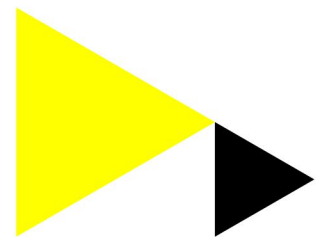
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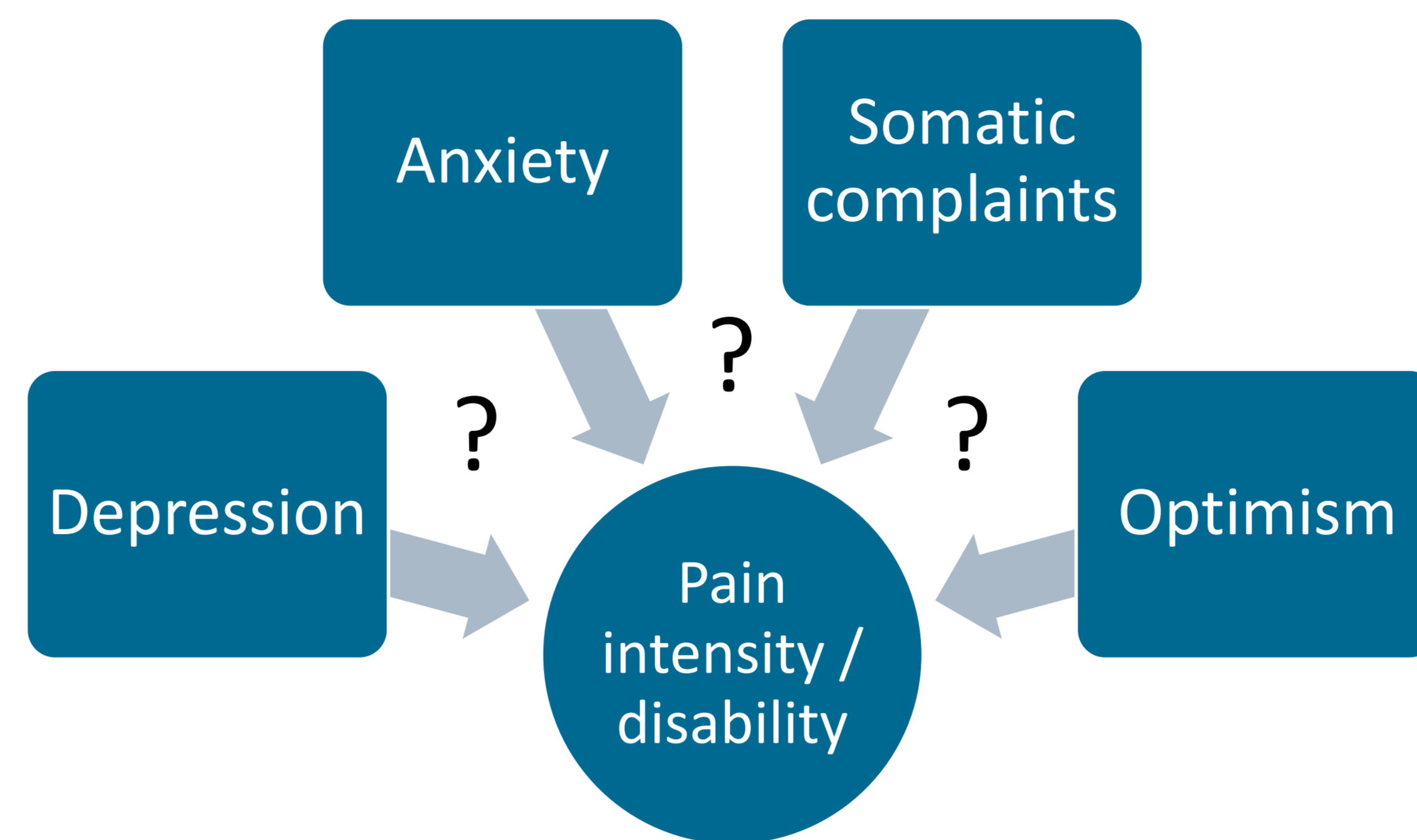
# Psychosocial predictors for pain outcomes in patients with temporomandibular disorders and headaches

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## 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).

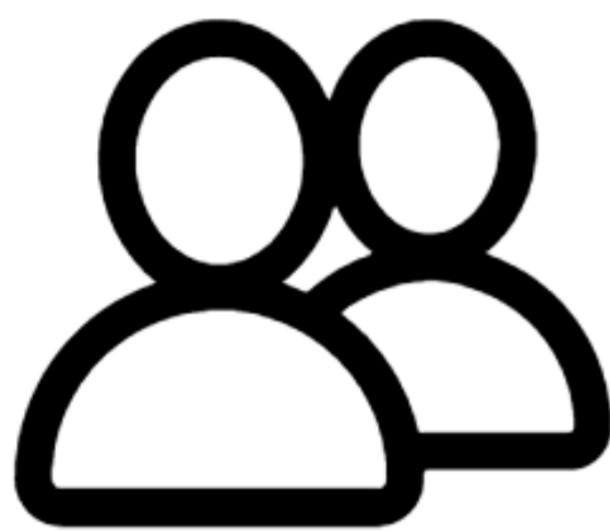


The aim of this study is to establish the influence of psychosocial factors on pain outcomes (intensity and disability) in patients with temporomandibular disorders and headaches.

Figure 1: unknown influence of psychosocial factors on pain outcomes

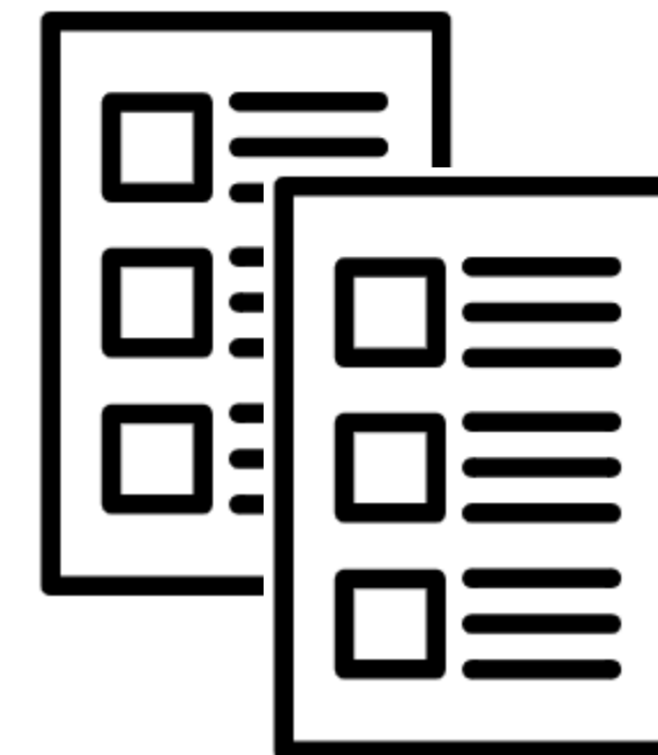
## Methods

### Design & Population:



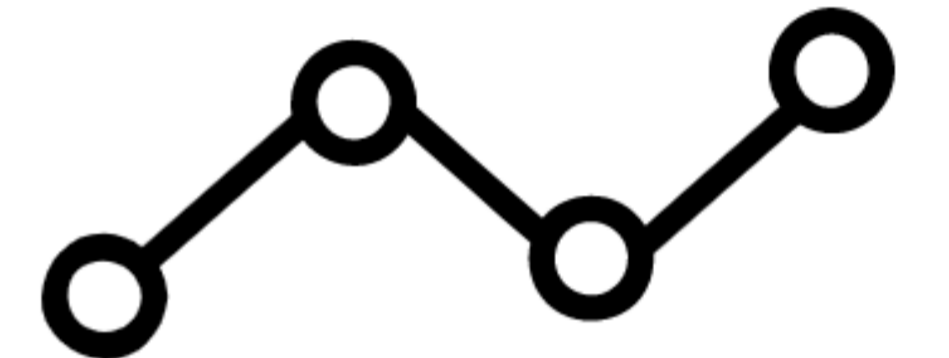
- Retrospective medical file study
- Patients with TMD-pain and headache (migraine, tension-type headache [TTH] or headache attributed to TMD [HATMD])

### 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

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