THE ROLE OF SLEEP DYSFUNCTION IN PAINFUL TEMPOROMANDIBULAR DISORDERS ONSET AND PROGRESSION: A SYSTEMATIC REVIEW & META-ANALYSIS

MEGHAN R. BURR,1 GARRETT S. NAZE,2 STEPHEN M. SHAFFER,2 ALICIA J. EMERSON2

High Point University, Congdon School of Health Sciences
1Department of Exercise Science | 2Department of Physical Therapy

BACKGROUND

• Painful temporomandibular (TM) disorders are often disabling and result in $4.3 billion dollars spent annually in the US.1
• The complex physiological and psychological interplay between pain and sleep have been well established, with poor quality sleep having been shown to be a potential precipitating variable for the onset of painful TM disorders.2,3
• Identifying evidence informed self-report outcome measures (SROMs) for capturing poor quality sleep in populations with TM disorders is integral to delivering optimal care.

PURPOSE

The purposes of this systematic review were to:
• Identify the reliability and validity of SROMs exploring sleep quality in patient populations with painful TM disorders
• Examine the diagnostic & prognostic abilities of these SROMs

METHODS

• A systematic search following PRISMA guidelines was run in six databases: CINAHL, Dental, PsychALL, PubMed, Scopus, and Web of Science.
• Inclusion criteria included adult populations with painful TM disorders.
• Risks of biases were examined in all studies.
• Diagnostic pooled findings were reported.

RESULTS

Table 1: Sensitivity/Specificity

Table 2: Forest Plot

• Seven different SROMs were identified.
• Only the Pittsburgh Sleep Quality Index (PSQI) has been validated in patients with painful TM disorders.
• Overall, poor quality sleep was diagnostic for painful TM disorders.
• With PSQI scores >5/21, the unadjusted hazard ratio for developing painful TM disorders was reported to be 2.1.

SUMMARY & CONCLUSION

• Emerging evidences demonstrates that poor quality sleep informs the diagnostic and prognostic decisions.
• Clinicians should consider using the PSQI to capture sleep dysfunction in patients with painful TM disorders using a cut-off score of >5/21.

REFERENCES


ACKNOWLEDGEMENT

The Congdon School of Health Sciences Summer Undergraduate Research Fellowship Program.