

## Virtual Reality and Pain Management in Temporomandibular Disorder: A Pilot Study

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**Objectives:** This study aims to determine the need of utilising virtual reality as an adjunctive treatment for patients with TMD pain, as well as analysing the participants' perception regarding the use of this technology as a non-pharmacologic treatment option for TMD.

**Methods:** This is a cross-sectional pilot study conducted via online survey method (Google form) and was distributed to practising private general dental practitioners who registered with Malaysian Dental Council (MDC). Descriptive statistics were used for prevalence and quantitative variables. This questionnaire comprises of three parts; (i) sociodemography, (ii) knowledge and perception of conventional treatment for temporomandibular disorders (TMD) and (iii) virtual reality as a treatment option for TMD. Data collected were analysed using SPSS (version 25). Descriptive analysis of all quantitative variables was performed. Comparison between two variables was analysed using the independent t-test, and the association between two variables was analysed using Pearson's correlation coefficient (r) analysis. The statistical significant value was set at  $p < 0.05$ .

**Results:** 28 participants (50.9%) are familiar with the sign and symptoms of TMD. There is no significant association between the years of practice and familiarity with sign and symptoms of TMD ( $p = 0.331$ ). Only 2 participants (3.6%) agreed that VR is useful as a non-pharmacologic adjunct to the conventional treatment for TMD.

**Conclusion:** Most general dental practitioners have an acceptable knowledge level of TMD but possess low awareness concerning VR. Regarding perception, most practitioners have no idea if VR can be an adjunctive treatment for patients with TMD pain.

Keywords: General Dental Practitioner; Temporomandibular Disorders; Virtual Reality; Perception; Pain Management; Awareness