

ABSTRACT

AIM:

The aim and objective of this study is to assess the prevalence and severity of temporomandibular disorders by evaluating the occlusal characteristics, headache, parafunctional habits, stress and TMJ clicking sounds by using Fonseca's and Helkimo questionnaires and clinical examination in young adults.

MATERIALS AND METHODS:

This study was done in Ragas dental college and Hospital in the Department of Oral and Maxillofacial Surgery during the period of February 2016 to December 2017. We designed a study to assess the prevalence and severity of temporomandibular disorders (joint sounds, pain in TMJ and its associated structures, masticatory muscles, restricted mandibular movements, jaw stiffness, deviation of mandible during mouth opening/closing and limited mouth opening) by evaluating the occlusal characteristics, headache, parafunctional habits, stress, anxiety/depression and TMJ clicking by using, Fonseca's and Helkimo questionnaire and clinical examination in young adults. The study was conducted on 832 participants aged 18-50 years, using two strategies to assess the severity of TMD: a clinical examination of temporomandibular joint and its associated structures, and a set of 18 questions regarding TMD data. Informed consent was obtained from all the

participants who participated in the study. Out of the 832 participants that were included in the study, 617 participants satisfied the inclusion criteria. In the 617 participants who were included, at least one sign/symptom of TMD could be elicited from them. The obtained data was analyzed using chi-square test.

RESULTS:

Results of present study showed that study subjects according to with(or) without presence of TMD based on age and gender shows that among 617 participants in which 374 (60.6%) participants had at least one sign/symptom of TMD in which 74(48.4%) participants were in 18-25 years group, 94(59.4%) participants were in 26-33 years age group, 101(61.5%) participants in 34-41 years age group, 105(74.4%) participants were in 42-50 years age group had at least one symptoms/sign of TMD. Based on gender wise distribution 204(54.5%) females, males 170(45.5%). prevalence of one or more symptoms of TMD was present in 32.1% participants, while the prevalence of one or more signs of TMD was present in 64.6% participants which was mild in severity. Females reported higher prevalence of TMD signs and symptoms than males. Mild anamnestic dysfunction symptoms (AiI) were found in 46.02% and severe dysfunction symptoms (AiII) were found in 8.91%, while mild clinical sign (DiI) were found in 48.6%, moderate dysfunction clinical sign (DiII) were found in 22.73% and severe clinical dysfunction sign (DiIII) were found in 3.07%. Statistically there was no age

and gender difference. Regarding the association between TMD with psychological stress and anxiety/depression, 199 of the 338 participants (58.9%) with TMD symptoms also had signs of psychological stress and anxiety/depression ($P < 0.001$).

CONCLUSION:

Subclinical signs of TMD were observed in 64.6% of general population who showed at least one positive sign. Females were more commonly affected than males in the ratio of 1.6:1. The middle age people more commonly affected. Results showed significant association between the reporting sign/symptoms of TMD and hypothesised risk factors such as psychological stress, anxiety/depression, sleep disturbances, tension type of headache, occlusal characteristics like malocclusion, posterior cross bite, anterior open bite, deep bite, parafunctional habits, adverse habits, missing posterior teeth, preferred chewing side have a significant role in establishing progressive temporomandibular disorders.

KEY WORDS: TMD, PSYCHOLOGICAL STRESS, ANXIETY / DEPRESSION, PARAFUNCTIONAL HABITS, ANAMNESTIC DYSFUNCTION INDEX, CLINICAL DYSFUNCTION INDEX.