ABSTRACT

Objective

The present study was the first attempt to assess prevalence of Temporomandibular disorders (TMD) among a group of Advanced Level (A/L) students in Sri Lanka. The study was carried out among A/L students attending government schools in the Colombo education zone. An attempt was done to describe the associations between selected socio-demographic: age, education year, subject stream, socio economic group and other selected variables: psychosomatic factors, selected signs and symptoms with TMD as well as to describe the impact of TMD on the daily activities of these students.

Methodology

A school based, cross sectional descriptive study design was used for the present study. Cluster sampling method, combined with probability proportionate to size (PPS) was used to select the sample and the sample consisted of 632, A/L students from government schools. A self-administered questionnaire consisting of pre- tested, modified version of Research diagnostic criteria for temporomandibular disorders (RDC/TMD) and a clinical examination were used to collect data. The questionnaire was originally developed in English and translated into Sinhalese and Tamil languages. Pain, usually localized in the muscles of mastication, the pre auricular area, and/or the temporomandibular joint was used as a guideline to define the TMD among subjects. Accordingly self reports and findings of the clinical examination were used to assess the prevalence of TMD among A/L students.

Results

The prevalence of TMD, based on self reports, was 15.5% among 16 -19 year old A/L students in the government schools in the Colombo education zone. However as revealed by the clinical examination only 9% were detected as having pain at the time of examination. Female preponderance was reported in the prevalence of TMD among this group of A/L students though it did not reach statistical significance. None of the socio

demographic factors: age, education year, subject stream and the socio economic group were associated with prevalence of TMD.

Moreover a statistically significant association observed between pain and joint sounds (P<0.009) and bruxism during day time (P<0.011). A multitude of psychosomatic factors were significantly associated with the prevalence of TMD such as headache, faintness or dizziness, feeling low in energy or slowed down, poor appetite, blaming yourself for things, pains in the lower back, worrying too much about things, feeling no interest in things, soreness of their muscles, trouble getting their breath, a lump in their throat, feeling hopeless about future and sleep that is restless and disturbed.

Yawning (33.7%), eating hard foods (31.6%), and chewing (26.5%) were the most restricted activities among the study group. The majority (79%) of them did not miss school attributed to TMD. Further none of the students with TMD reported that they were totally unable to carry out any activity. Ability to concentrate on studies was not affected as well.

On palpation of extra oral muscles, anterior and middle temporalis muscle pain was reported by the majority.. Unassisted mouth opening without pain ranged from 20mm to 45mm with the mean of 32.2mm. Unassisted maximum mouth opening was 25 mm to 51 mm with a mean of 38.7 mm

Conclusion

According to the findings of the present study, the prevalence of TMD among A/L students in the Colombo education zone is relatively low. However, it constitutes an emerging oral health problem among adolescents which is woefully under-investigated in community based studies. Hence, TMD should not be overlooked by oral health care providers in provision of comprehensive oral health care for adolescents, as early detection and appropriate referrals could effectively overcome the deleterious impact of its sufferers.