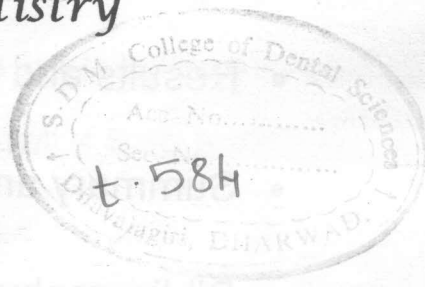
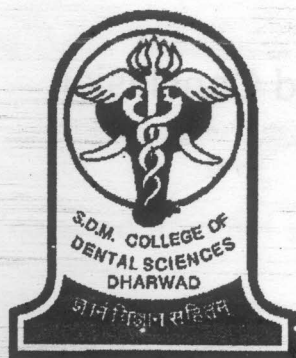


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ASSESSMENT OF TOOTH WEAR IN DHARWAD POPULATION USING TOOTH WEAR INDEX (TWI) (AN EPIDEMIOLOGICAL STUDY)

*Dissertation submitted to the
Rajiv Gandhi University of Health Sciences,
Karnataka, Bangalore
in partial fulfillment of the requirements for the
Degree of Master of Dental Surgery in
Community Dentistry*



September, 2001

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ABSTRACT

TITLE: ASSESSMENT OF TOOTH WEAR IN DHARWAD POPULATION USING TOOTH WEAR INDEX (TWI)

AIM: The aim of the study was to assess the level of tooth surface loss in the population of Dharwad city.

METHODS: The total study population included a random sample of 881 subjects of which 475 males and 406 females with age ranging from 16 years to 66 year and over age. General information and information related to the subjects oral hygiene practice methods and adverse habits, Dietary / Food habits, Bruxism, and Gastro-oesophageal reflux were collected by interview. Clinical examination was done to assess the level of tooth surface loss using Tooth Wear Index (TWI) of Smith and Knight (1984).

RESULTS: Results were obtained from 881 subjects. There was 94.0% cervical surface wear, 63.3% buccal surface wear, 99.1% occlusal / incisal surface wear and 61.2% lingual surface wear. The overall tooth wear in male subjects i.e. 98.1%, 66.5%, 99.8% and 64.2% of subjects were with cervical, buccal, occlusal / incisal and lingual surfaces wear respectively. The overall tooth wear in female subjects i.e. 89.2%, 59.6%, 98.3% and 57.6% of subjects were with cervical, buccal, occlusal / incisal and lingual surfaces wear respectively.

The average TWI score for all surfaces in 16-25 year age group was 0.14 and that for 26-35 year, 36-45 year, 46-55 year, 56-65 year and 66 year & over age was 0.42, 1.01, 1.35, 1.52 and 2.05 respectively. The mean number of all (C+B+O/I+L) tooth surfaces with score-1 of TWI was found to be greater (35.45) in 36-45 year, score-2 (32.82) in 46-55 year, score-3 (17.74) in 56-65 year and score-4 (13.70) in 66 year & over age.

CONCLUSIONS: A significant variation in tooth wear with age was noted for all surfaces. Occlusal / incisal surfaces displayed some of the highest mean wear scores, especially in the older age groups. Greater mean wear scores were observed among males than females. A significant variation in tooth wear with different oral hygiene practice, different dietary / food habits and subjects with bruxism and gastro-esophageal reflux was noted at $P < 0.01$, $P < 0.05$, $P < 0.05$, $P < 0.05$ and $P < 0.05$ respectively.