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## Partial edentulousness prevalence in Kashmiri population

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### Abstract

The aim of this study was to estimate the prevalence of tooth loss in Kashmiri population. Pattern of tooth loss was studied using Kennedy's classification which is the most widely accepted and universally followed classification of the partial edentulous state. This study was conducted in the department of prosthodontics, Government Dental College and Hospital Srinagar. Convenience sampling technique was utilized for data collection, and 400 patients were selected. The study sample were divided into two groups, comprised 200 men and 200 women. The selected patients were grouped according to their age. The results showed highest class IV partial edentulousness in age group I and lowest in group III. Class I and class II partial edentulousness is found to be highest in age group II and lowest in age group I. Class III partial edentulousness is highest in age group III and similar in group I and group II.

**Keywords:** Kashmiri population, edentulousness, fluorosis

### Introduction

The presence (or) absence of teeth is a good predictor of oral health of an individual. The reasons for tooth loss may be due to dental caries, periodontal disease, traumatic accidents, impaction, orthodontics, supernumerary, preparation for radiotherapy, or even due to congenital and developmental disorders. The dental caries and periodontal disease are two most common causes of tooth loss in Asian population. Secondary reasons for tooth loss are restricted access to dental services, health systems, and lack of oral health care. Tooth loss affects the overall health and quality of life of an individual, causing reduced efficiency and function of the masticatory system and the appearance of the individual. By reduced chewing ability in individuals with tooth loss, diet and nutritional intake could probably be reduced.

An edentulous space resulting from loss of tooth causes a gap formation in the dental arch. A person may lack a few teeth (partially edentulous) or all the teeth in one or both upper and lower jaws (completely edentulous) for various reasons. Bruce observed that the major reason for tooth loss across all the ages were due to dental caries (83%) followed by periodontal disease (17%).

The aim of this study was to estimate the prevalence of tooth loss in Kashmiri population. Pattern of tooth loss was studied using Kennedy's classification which is the most widely accepted and universally followed classification of the partial edentulous state.

### Materials and methods

This study was conducted in the department of prosthodontics, Government Dental College and Hospital Srinagar. Convenience sampling technique was utilized for data collection, and 400 patients were selected.

### Inclusion criteria

1. Age: 20-60years,
2. Both genders,
3. Partially edentate.

### Exclusion criteria

1. Patients with only missing third molars

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2. Complete dentate arches,
3. Complete edentate arches,
4. Patients younger than 20years.

The study sample were divided into two groups, comprised 200 men and 200 women. The selected patients were grouped according to their age. The subjects are divided into three groups depending on their age:

Group I – 18 to 30 years,

Group II – 31 to 50 years, and

Group III – 51 to 80 years.

The subjects were screened for missing teeth, tooth loss

pattern, abutment evaluation, and treatment based on clinical examination and affordability was recorded.

## Results

Data were analyzed by using IBM SPSS 19.0 version, the Pearson Chi-square analysis test was conducted and  $P < 0.05$  was considered to be statistically significant.

The results showed highest class IV partial edentulousness in age group I and lowest in group III. Class I and class II partial edentulousness is found to be highest in age group II and lowest in age group I. Class III partial edentulousness is highest in age group III and similar in group I and group II.

**Table 1:** The age-wise distribution of various classes Kennedy's classifications

Age	Class I	Class II	Class III	Class IV	Total
18-30	10 (11.1%)	15 (16.6%)	25 (27.7%)	40 (44.4%)	90
30-50	77 (42.7%)	33 (18.3%)	25 (13.8%)	45 (25%)	180
50-70	47 (36.1%)	24 (18.4%)	29 (22.3%)	30 (23.07%)	130
Total	134	72	79	115	400

**Table 2:** Grouping of selected subjects

Age group	Age(years)
Group I	18-30
Group II	30-50
Group III	50-70

## Discussion

It is increasingly recognized that the impact of the disease on quality of life should be taken into account when assessing health status. It is likely that tooth loss, in most cases being a consequence of oral diseases, which affects the oral health related quality of life.

Partially edentulous state was again more prevalent in group II subjects compared with groups I and III.

This shows that tooth loss increases with age. This is in accordance with studies done by Madléna *et al.* [4] who reported that tooth loss is directly proportional to age. This could be due to systemic disease, poor oral hygiene, lack of education and awareness, and due to low socioeconomic status.

In all the three groups, Kennedy's class III partially edentulous state was the most prevalent type of tooth loss irrespective of the arch.

The most common missing tooth is the mandibular first molar. The reason for this is due to dental caries.

Many studies have conclusively reported that the mandibular molars were the most severely affected teeth in the entire dentition due to dental caries since it is the first tooth to erupt. This could be the possible reason why mandibular molars are the most commonly missing tooth.

## Conclusion

The loss of teeth was directly proportional to age. The main reason for tooth loss was caries and the most common tooth lost was mandibular first molar. By bringing about awareness of tooth loss, its sequelae, and available treatment options in a rural population, the dental needs of the community could be met leading to an overall improvement in their quality of life.

## References

1. Marcus SE, Drury TF, Brown LJ, Zion GR. Tooth retention and tooth loss in the permanent dentition of adults: United States, 1988-1991. *J Dent Res.* 1996; 75:684-695.

2. Yiengprugsawan V, Somkotra T, Seubsman SA, Sleight AC. Thai Cohort Study Team. Oral health-related quality of life among a large national cohort of 87,134 Thai adults. *Health Qual Life Outcomes.* 2011; 9:42.
3. Adegboye AR, Fiehn NE, Twetman S, Christensen LB, Heitmann BL. Low calcium intake is related to increased risk of tooth loss in men. *J Nutr.* 2010; 140(10):1864-1868.
4. Madléna M, Hermann P, Jahn M, Fejérdy P. Caries prevalence and tooth loss in Hungarian adult population: results of a national survey. *BMC Public Health.* 2008; 8(1):364.
5. Baba K, Igarashi Y, Nishiyama A, John MT, Akagawa Y, Ikebe K *et al.* Patterns of missing occlusal units and oral health-related quality of life in SDA patients. *J Oral Rehabil.* 2008; 35(8):621-628.
6. Gerritsen AE, Allen PF, Witter DJ, Bronkhorst EM, Creugers NH. Tooth loss and oral health-related quality of life: A systematic review and meta-analysis. *Health Qual Life Outcomes.* 2010; 8:126.
7. Ide R, Yamamoto R, Mizoue T. The Japanese version of the Oral Health Impact Profile OHIP-Validation among young and middle-aged adults. *Community Dent Health.* 2006; 23:158-63.
8. Prabhu N, Kumar S, D'souza M, Hegde V. Partial edentulous in a rural population based on Kennedy's classification: An epidemiological study. *J Indian Prosthodont Soc.* 2009; 9:18-23.
9. Murariu A, Hanganu CS, Danila I. Prevalence of missing teeth and the treatment need in adult population from Iasi, Romania. *Int. poster J Dent Oral Med.* 2010; 12:490.
10. Curtis DA, Curtis TA, Wagnild GW, Finsen FC. Incidence of various classes of removable partial dentures. *J. Prosthet Dent.* 1992; 67:664-7.
11. Adware ZN. Partial edentulism and removable denture construction: A frequency study in Jordanians. *Eur. J Prosthodont Restor Dent.* 2006; 14:13-7.
12. Petersen PE, Yamamoto T. Improving the oral health of older people: The approach of the WHO Global Oral Health Programme *Community Dent Oral Epidemiol.* 2005; 33:81-92.