

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

ScienceDirect

journal homepage: [www.elsevier.com/locate/jpfa](http://www.elsevier.com/locate/jpfa)

# A survey to assess the validity of Kennedy's classification system in the present era

Vinaya Bhat<sup>a</sup>, S. Sriram Balaji<sup>b,\*</sup>

<sup>a</sup> Department of Prosthodontics, A B Shetty Memorial Institute of Dental Sciences, Mangalore, Karnataka 575018, India

<sup>b</sup> Department of Prosthodontics, Sriramakrishna Dental College and Hospital, SNR College Road, Nava India, Coimbatore, India

## ARTICLE INFO

### Article history:

Available online 23 November 2015

### Keywords:

Kennedy classification  
Removable partial denture  
Survey

## ABSTRACT

The present classification system for removable of partial dentures has been proposed by Dr. Edward Kennedy 87 years ago. With the decrease in prevalence of edentulousness, this system of classification is questionable in this modern technologically and scientifically advanced era. This survey is the first of its kind in assessing the validity of Kennedy's classification system. Based on the results obtained from the survey, a new system of classification has been proposed.

© 2015 Pierre Fauchard Academy (India Section). Published by Elsevier, a division of Reed Elsevier India, Pvt. Ltd. All rights reserved.

## 1. Introduction

Effective communication is an essential part of good patient management. In dentistry, it is a must because of involvement of the dentist and the technician. The dentist has to communicate with the technician about the requirements to fabricate the necessary prostheses. In Prosthodontics, varied types of partially edentulous patients are seen, and it is required to establish a good rapport between the dentist and the technician for designing and fabrication of a removable partial denture prosthesis (RPDP).

In removable partial denture prosthodontics, classification of an existing situation helps in (a) visualising the type of partially edentulous arch, (b) differentiating between tooth borne and tissue borne situations, (c) forming a general idea of the design to be used, and (d) determining the general location of the teeth to be replaced.<sup>1</sup> In an attempt in achieving the same, several classification systems have been proposed by Avant,<sup>1</sup> Kennedy,<sup>2</sup> Cummer,<sup>3</sup> Beckett,<sup>4</sup> Miller, Friedman,<sup>5</sup>

Swenson,<sup>6</sup> Applegate,<sup>7</sup> and Skinner,<sup>8</sup> etc. However, among the plethora of systems, a classification system proposed by Dr. Edward Kennedy in the year 1925 became more popular and is being widely used till today.<sup>2</sup>

Kennedy's classification includes four major categories represented from Class I to Class IV. This sequence was based on the frequency of occurrence of edentulousness, with class I being more prevalent and class IV being least during the period of the study. Other than the major classification, if there is an additional space existing, he termed it as "modification space".

At the present era, after 87 years, with the major research and development that has occurred in the field of material science and technology, salvaging a tooth or a root has become easily achievable. Along with the change in the trend of treatment choices, there is bound to be a change in the prevalence of edentulous status in the society. This necessitates a new outlook towards reconsidering the classification systems that suited the previous era.

There has been an attempt to modify the Kennedy's classification earlier. Applegate,<sup>9</sup> in the year 1960 modified

\* Corresponding author. Tel.: +91 8015382800.

E-mail address: [drssrirambalaji86@gmail.com](mailto:drssrirambalaji86@gmail.com) (S. Sriram Balaji).  
<http://dx.doi.org/10.1016/j.jpfa.2015.10.001>

0970-2199/© 2015 Pierre Fauchard Academy (India Section). Published by Elsevier, a division of Reed Elsevier India, Pvt. Ltd. All rights reserved.

the Kennedy's classification based on the amount of support offered by the primary abutments. He added two more classifications (Class V and Class VI) to develop a new classification named "Kennedy-Applegate classification". However, he too concluded that bilateral edentulous ridges are the most frequently occurring situations that too in the mandible.

Due to the ever changing treatment procedures and enhanced chance to retain the teeth in the mouth, there may be a shift in the prevalence of edentulous state in the human population. No thought has been ever given so far to revisit the existing classification to determine if it still holds valid for the current situations with new, improved treatment procedures. Realising this lacuna in this field of dentistry, this

#### Selection criteria:

##### Inclusion criteria:

1. Partially edentulous patients.
2. Age between 19 and 65 years.

##### Exclusion criteria:

1. Complete dentate patients.
2. Completely edentulous patients.
3. Age less than 19 years and more than 65 years.

All subjects were examined to identify the teeth missing, both in the maxilla and the mandible.

The data were tabulated as follows\*:

S.no.	Name/age	Sex	Group I Bilateral edentulous – posterior		Group II Unilateral edentulous – posterior		Group III Bounded edentulous area		Group IV Bilateral edentulous – anterior	
			Maxilla	Mandible	Maxilla	Mandible	Maxilla	Mandible	Maxilla	Mandible
1										
2										
3										
4										
5										

\* Original data can be provided if required.

survey was undertaken with the aim of determining the validity of Kennedy's classification in the present era and to assess the present prevalence of the same in the Southwest coastal region of India.

## 2. Objectives

- (1) To determine the current most prevalent partially edentulous situation.
- (2) To determine the most prevalent situation based on the gender
- (3) To determine the most prevalent situation based on the arch.
- (4) To propose a new classification based on the prevalence.

## 3. Materials and methods

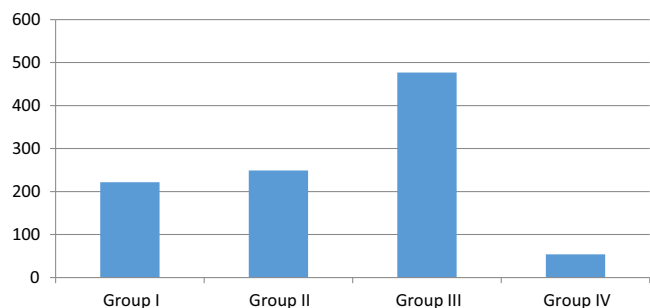
The survey was conducted in the department of Prosthodontics & Implantology, A B Shetty Memorial Institute of Dental Sciences, Mangalore, Karnataka. About 1002 patients reporting to the department were included in the study. The partially edentulous subjects age ranged from 19 to 65 years.

## 4. Results

Among 1002 patients examined, 222 patients exhibited Group I, 249 patients exhibited Group II, 477 patients exhibited Group III and 54 patients exhibited Group IV edentulous condition.

### 1. Predominant edentulous group

Graph I



### 2. Gender based predominance in each group

Among 222 group I patients, 99 were males and 123 were females (Graph II).

Download English Version:

<https://daneshyari.com/en/article/3160161>

Download Persian Version:

<https://daneshyari.com/article/3160161>

[Daneshyari.com](https://daneshyari.com)