Self-Estimated Quality of Life in Wearing Two Different Provisional Dentures

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* H. C. Roggendorf [1], W. Dasch [2], M. A. Baumann [3], and M. J. Roggendorf [4]

[1] Department of Prosthetic Dentistry, University of Cologne, Germany,
[2] Department of Operative Dentistry and Periodontology, University of Erlangen-Nuremberg, Germany,
[3] Policlinic for Operative Dentistry and Periodontology, University of Cologne, Germany,
[4] Department of Operative Dentistry and Endodontics, University of Marburg, Germany

Dr. Hubert C. Roggendorf
University of Cologne
School of Oral & Dental Medicine
Dept. of Prosthetic Dentistry
Kerpener Str. 32
D-50931 Cologne/Germany
Tel.: +49-221-478-6337,
Fax: +49-221-478-86803
hubert.roggendorf@uk-koeln.de

Introduction

Purpose of this investigation was to evaluate the self-assessed satisfaction in patients wearing two different types of provisional removable partial dentures (RPD) consecutively.
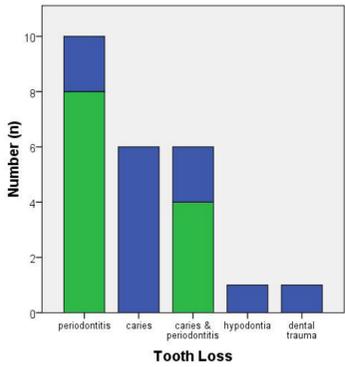
Materials and Methods

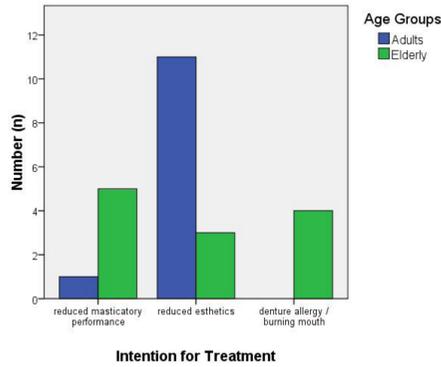Fig. 1: Self-estimated Reasons of Tooth Loss
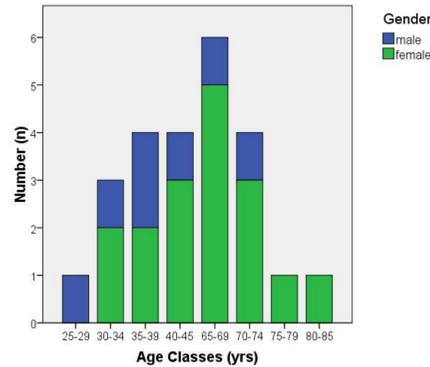
Fig. 2: Subjective Treatment Intention
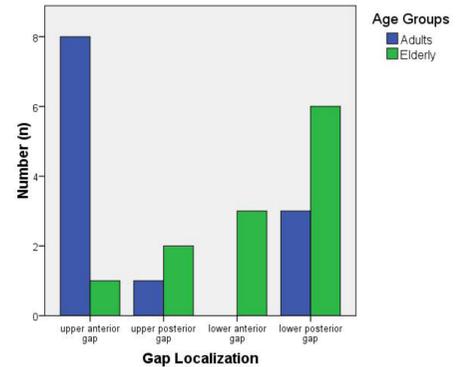
Fig. 3: Age Classification

Fig. 4: Topographic Gap Classification

24 patients with single tooth gaps in the upper or lower jaw were selected (Fig. 1, 2, 4). All patients were distributed into 2 age groups (adults: 25-45 yrs, elderly: 65-85 yrs) (Fig. 3). One half of each group was treated with a regular provisional RPD (PMMA), the other half was treated with a flexible RPD made of polyamide 6.6 (Valplast®) first (Fig. 5). After six weeks both groups were crossed-over (Fig. 6). The self-assessed oral health-related quality of life (OhrQoL) was evaluated by the oral health impact profile (OHIP-G 14) initially (prior to first treatment), intermediately (after first treatment) and finally (after second treatment). Data was analyzed by Mann-Whitney-U-Test using SPSS 17.0 (level of significance: p<.05).

Fig. 5: Examples of Both Types of Denture being used (Valplast / PMMA)

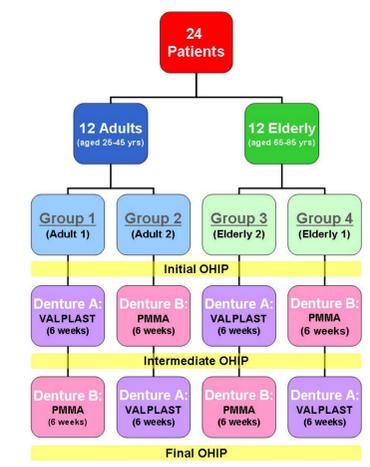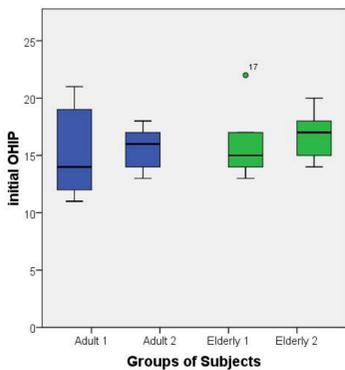Fig. 6: Schedule of the Investigation

Results

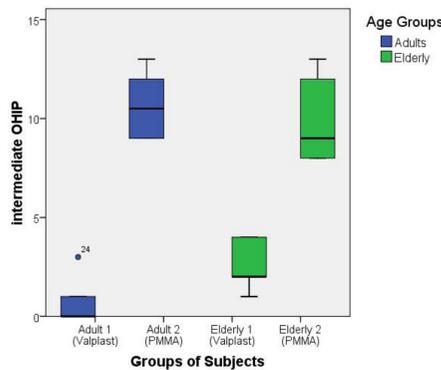Fig. 7: Initial OHIP in each Group of Subjects
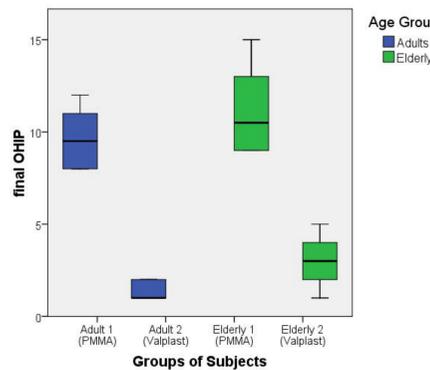
Fig. 8: Intermediate OHIP in each Group of Subjects

Fig. 9: Final OHIP in each Group of Subjects

Most individuals in both age groups self-reported their OhrQoL being superior in wearing Valplast partials compared to regular PMMA partials (Fig. 7-9). Especially, the differences between both types of anterior partials were significant. The sequence of prosthodontic treatment (type of partial) had no significant influence on the OHIP score (Fig. 13). Comparing untreated gaps with Valplast treated gaps, the differences of the OHIP scores were significant, but were not between untreated and with PMMA partials treated gaps (Fig. 10-12). Main aspects leading to an increased OhrQoL by Valplast partials compared to PMMA partials were increased esthetics, a better fit and adaption of flexible denture and less pressure sores (Fig. 14).

	Initial OHIP		Intermed. OHIP		Final OHIP	
	Sig-nific.	p-value	Sig-nific.	p-value	Sig-nific.	p-value
Age	No	0,0707	No	0,7017	Yes	0,0439
Age Group	No	0,7156	Yes	<0,0001	Yes	<0,0001
Age Class	No	0,0764	No	0,7573	No	0,1166
Group	No	0,4229	Yes	<0,0001	Yes	<0,0001
Gender	No	0,9623	No	0,3420	No	0,3358
Gap Type	Yes	0,0144	No	0,5496	Yes	0,0153
Schedule	No	0,3828	Yes	<0,0001	Yes	<0,0001

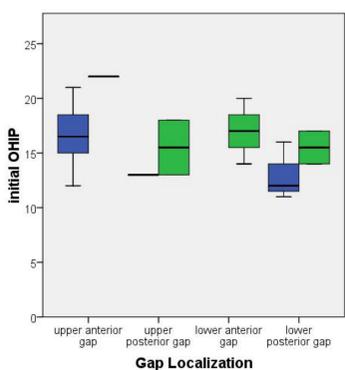Fig. 13: Influence of Various Factors on the OHIP Scores

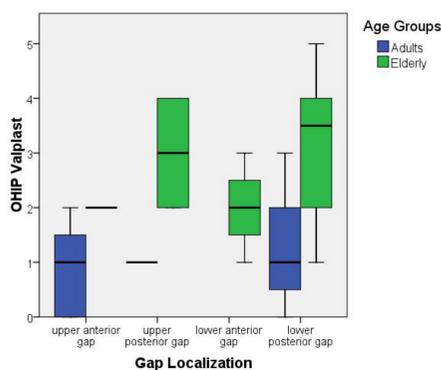Fig. 10: Initial OHIP depending on Gap Localization

Fig. 11: Intermediate OHIP depending on Gap Localization

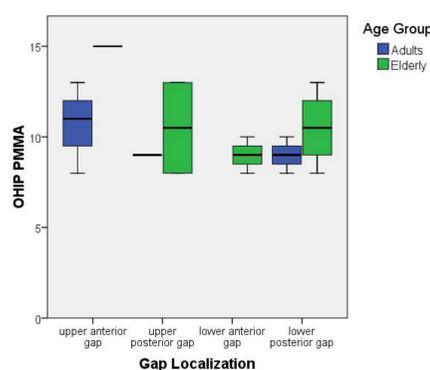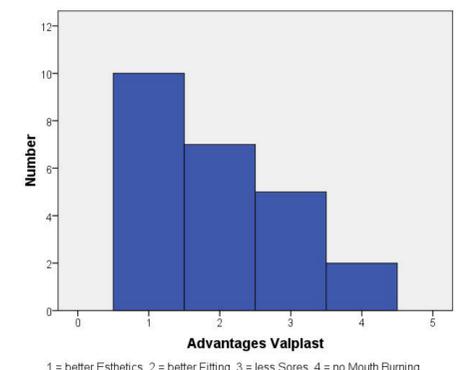Fig. 12: Final OHIP depending on Gap Localization

Fig. 14: Self-estimated Advantages of Wearing Valplast Partials

1 = better Esthetics, 2 = better Fitting, 3 = less Sores, 4 = no Mouth Burning

Conclusions

Valplast partials may increase OhrQoL in patients with single tooth gaps of various age groups, especially in provisional prosthodontic treatment of anterior tooth gaps.