

# PARTIAL EDENTULISM AND AWARENESS TOWARDS ITS MANAGEMENT

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## ABSTRACT

This cross sectional study was carried out among 200 patients within age of 18-75 years visiting the Department of Oral Medicine and Radiology, CODSH-Nepal Medical College with at least one missing tooth with an objective of exploring the attitude and knowledge of people towards partial edentulousness and management of the same. The methodology selected was a questionnaire survey followed by clinical examination. The result showed that caries was most common reason for the loss of teeth (60%) in both male (48.6%) and female (66.40), only 23.5% of total respondents had undergone treatment. Among various reasons for not restoring edentulous state, felt no deficiencies (35.0%) was the most common reason for not getting treated, negative attitude towards prosthesis (23.5%), aware but for economic reason (22.5%), lack of awareness (16.0%) and (3.0%) had fear with dental procedures. When compared to other groups, age 72 and above were aware but not availing prosthesis due to economic reasons (50%). The study revealed majority of respondents were not getting treated due to various reasons which showed that the population needs to get educated and motivated.

## KEYWORDS

Awareness, partial edentulism

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## INTRODUCTION

Edentulism is the state of being edentulous without natural tooth/teeth. Tooth loss is a permanent condition in that the natural order has been disrupted, and in this sense it is much like a chronic medical condition. Edentulism not only leads to impairment of normal function, comfort, aesthetics and speech, but also leads to various undesirable consequences like occlusal discrepancies, migration and spacing of surrounding teeth, supra eruption, loss of space, TMDs and other unfavorable conditions. The term management suggests a focus on meeting needs that may change over time. Different epidemiologic studies have confirmed the pattern,<sup>1-6</sup> prevalence<sup>2-7</sup> and correlation of partial edentulism, and its association with age, sex, gender, socioeconomic status its prosthetic rehabilitation status,<sup>8</sup> removable versus fixed restoration rate and lack of awareness on the part of public.<sup>3</sup>

## MATERIALS AND METHODS

The study was conducted in the Department of Oral Medicine and Radiology, CODSH-Nepal Medical College. The study followed a cross sectional design using a self administered questionnaire. A validated, translated questionnaire was used for this study. The researcher was present at all times with the participants to help them fill out the questionnaire. Respondents between the age 18-72 years and above were included in the study after obtaining consent. Out of total medical colleges in Kathmandu valley, Nepal Medical College was selected on purpose. The prevalence of awareness regarding partial edentulism was obtained from a prior study to estimate the sample size. For this survey, a sample size of 200 was derived (least estimated difference/ permissible error=0.06) using the formula for estimation of sample size by proportion. An excess of 20% was added to cover withdrawal issues and the minimum sample size was calculated to be 200. Any respondent unwilling to participate was excluded from the study. The

questionnaire comprised of the General Information section to assess the respondent's socio-demographic data and dentition status. Section II consisted of a questionnaire which was used to evaluate the awareness of the respondents towards the management of partial edentulism.

Ethical approval was taken from the Research and Ethical Sub Committee, Nepal Medical College (NMC-RESC)

## RESULTS

Table 1 shows reasons for loss of tooth/teeth, in which caries was most common reason for the loss of teeth (60%) in both male (48.6%) and female (66.40). Followed by Periodontal cause accounted for 33.5%, however, this was not statistically significant (p value>0.05). Table 2 shows the duration patient had been edentulous for. Most of the patient were edentulous for more than one year (77%). Table 3 shows among 200 edentulous patient 153 (76.5%) were not treated and only 47 (23.5%) were using different types of prosthesis. Table 4 revealed that when awareness was assessed, it was seen that individuals of age 36-53 years presented with complete lack of awareness (21.3%) and also responded that they felt no deficiencies due to lack of prostheses(37.7%) when compared to other groups. However, age 72 and above were aware but not availing prosthesis due to economic reasons (50%). These findings were not statistically significant. (p-value >0.05) Table 5 shows how often these patient visited dentist. (77%) didn't visit dentist regularly whereas only (2.0%) visited dentist once in 6 months. Gender wise preference of prosthesis showed that higher proportion of males were found to be using removable partial dentures (94.44%) over fixed partial dentures (5.56), whereas, females showed preference for fixed partial dentures (33,33%) when compared to males (5.56%). This was also statistically significant (p value <0.05) (Table 6)

**Table 1: Reasons for loss of tooth/teeth**

Gender	Count	Reasons for loss of tooth/teeth				Total
		periodontal	caries	trauma	periodontal and caries	
male	33	33	35	3	1	72
	% within gender	45.8%	48.6%	4.2%	1.4%	100.0%
female	34	34	85	7	2	128
	% within gender	26.6%	66.40625%	5.5%	1.6%	100.0%
Total	67	67	120	10	3	200
	% within gender	33.5%	60.0%	5.0%	1.5%	100.0%

\*p-value>0.05, taken from Fischer Exact test

**Table 2: Duration of edentulism**

Duration of edentulism	Frequency	Percent
less than 3 months	18	9.0
3-6 months	13	6.5
6months to 1year	15	7.5
more than one year	154	77.0
Total	200	100.0

**Table 3: Distribution of treated versus untreated**

Patient	Frequency	Percent
Untreated	153	76.5
Treated	47	23.5
Total	200	100.0

**Table 4: Reasons for not restoring edentulousness**

Age group		Reasons for not restoring edentulousness					Total
		lack of awareness	aware but for economic reason	felt no deficiencies	fear	negative attitude	
18-35 years	Count	6	20	16	3	10	55
	% within age group	10.9%	36.4%	29.1%	5.5%	18.2%	100.0%
36-53 years	Count	13	11	23	0	14	61
	% within age group	21.3%	18.0%	37.7%	.0%	23.0%	100.0%
54-71 years	Count	13	11	29	3	22	78
	% within age group	16.7%	14.1%	37.2%	3.8%	28.2%	100.0%
Above 72 years	Count	0	3	2	0	1	6
	% within age group	.0%	50.0%	33.3%	.0%	16.7%	100.0%
Total	Count	32	45	70	6	47	200
	% within agegroup	16.0%	22.5%	35.0%	3.0%	23.5%	100.0%

\*p value>0.05, taken from Fischer Exact test

**Table 5: Frequency of patient visiting dentist**

Frequency of patient visiting dentist	Frequency	Percent
once in 6 months	4	2.0
once a year	41	20.5
not regular	155	77.5
Total	200	100.0

**Table 6. Gender wise distribution of prosthesis**

Variable	FPD	RPD	p-value*
gender	male	n 1	17
		% 5.56	94.44
	female	n 9	18
		% 33.33	66.67
Total	n 10	35	0.03
	% 22.22	77.78	

\*p-value taken from Fischer- Exact test

## DISCUSSION

The loss of teeth can lead a patient to seek care for functional reasons as they notice a diminished function to a level that is unacceptable to them. The level at which a patient finds function to be unacceptable varies among individuals.<sup>3</sup> This study analyzed patients visiting Nepal medical college and hospital, CODSH with at least one missing teeth, patient with no missing teeth were not included and patients were aged 18 to 75 years. Motive of the study was to evaluate the knowledge and awareness of patient towards treatment of edentulism. In the surveyed group, dental caries was the most common reason for the loss of tooth/teeth in both male (48.6%) and female (66.40%) group (Table 1). Most of the patients were edentulous for more than one year (77%) which showed that they are not aware of the consequences of the disease and its complications (Table 2). The restored cases were only 23.5% (Table 3) out of the affected cases, which showed that there was a

lack of awareness to treat the same. Patients who were not treated had various reasons for not restoring the missing tooth/teeth, felt no deficiencies (35%) which clearly shows they are not aware of the consequences of the disease, negative attitude towards prosthesis (23.5%), lack of awareness (16%) which indicates the lack of knowledge about the treatment and unwanted effects of the same, few (3.0%) even had fear with dental treatment, only 22.5% of total patients were aware but financial consideration were preventing them of getting treated. Among surveyed patients only (2.0%) visited dentist regularly, which also indicates lack of awareness towards their oral health. This study shows that patients need to be motivated towards prevention of the disease and also various awareness programs has to be conducted so as to enlighten them about the unwanted consequences and benefits of the treating the same. In conclusion, the incidence of partial edentulism among surveyed patients were 36% male and 64% female which was highly significant showing female dominance. In a similar study where all restored cases were with fixed bridges and no anterior edentulousness was found, women were found to be more aware than men to restore it.<sup>3</sup> The reason for higher proportion of females presenting with partial edentulism in this study could hence be because of the fact that women being more aware, sought treatment and hence were diagnosed with partial edentulism. A predominant reason for loss of tooth/teeth was dental caries (60%). Among 200 edentulous patients only 47(23.5%) were treated and Lack of awareness, felt no deficiencies, negative attitude towards prosthesis and fear towards dental treatment were found in all age. However, individuals above 72 years of age showed more awareness than any other age groups. This was, however, different from the findings of another study where highest proportion of awareness was found among individuals below the age of 19 years.<sup>11</sup> The finding of this survey showed the need to educate the population regarding the importance of tooth/teeth, treatment of diseased tooth/teeth and also to replace the same in-case if it has to been extracted due to any reasons.

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