

# Perception of Oral Health Related Quality of Life (OHRQoL) Among Congenitally Missing Teeth Patients and Acquired Missing Teeth Patients; a Comparative Study

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## ABSTRACT

**Objective:** To determine a comparison of oral health related quality of life (OHRQoL) among congenitally missing teeth patients and acquired missing teeth patients.

**Study Design:** A comparative cross-sectional survey

**Place and Duration of Study:** This study was conducted at the Department of Prosthodontics, de'Montmorency College of Dentistry/Punjab Dental Hospital Lahore from 02.01.2019 to 01.06.2019.

**Materials and Methods:** A total of 82 were included in the study in which 41 with congenitally missing teeth patients and 41 were acquired missing teeth patients. All patients were provided OHIP-14 questionnaire and outcome were documented on 5-point Likert scale. The mean scores of the two groups were recorded and chi square test applied for comparison.

**Results:** The results showed that Oral Health Impact Profile (OHIP) outcome in patients with hypodontia were observed more as compared to the acquired missing teeth.

**Conclusion:** The OHRQoL in congenitally missing teeth was significantly compromised as compared acquired missing teeth patients as the tooth loss increased.

**Key Words:** Hypodontia, Oral Health Impact Profile (OHIP), Oral Health Related Quality of Life (OHRQoL).

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## INTRODUCTION

Loss of tooth is a key indicator of the status of oral health in a population.<sup>1</sup> Edentulism not only compromises eating abilities but also affect speech and appearance.<sup>2</sup> Low level of confidence, loss of weight and inadequate dietary and limited social activities are also affected.<sup>3-5</sup>

Hypodontia is classified as mild state when one to three teeth are not present; moderate condition in which four to six teeth are absent and severe when more than six teeth are missed.<sup>6</sup> The reported incidence of hypodontia fluctuates depending on gender and population.<sup>7</sup> The prevalence of hypodontia in the primary teeth is about 0.5% and in permanent teeth ranging from 3.5-6.5%.<sup>8,9</sup>

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Along with tooth loss, patients suffer morphological variation in tooth structure, deficiencies in bone volume and skeletal jaw malrelationships.<sup>4</sup> Hobkirk et al. found that most common patients' complaint was not satisfied with appearance, in a retrospective survey of 451 subjects.<sup>10</sup>

Oral health related quality of life recognized as a parameter to analyze the outcome in hypodontia patients' daily life and finding possible treatments plans.<sup>11</sup> Oral Health Impact Profile is a common measuring scale applied to assess OHRQoL.<sup>12,13</sup>

There is massive evidence displaying the bad impact of acquired missed teeth on OHRQoL. But the available data on OHRQoL in congenitally missing teeth patients is insufficient.<sup>14</sup>

## MATERIALS AND METHODS

After ethics approval present study was conducted at Prosthodontics and Orthodontics department, Punjab Dental Hospital/de'Mont, Lahore. Eighty two patients were included in the study sample and both groups had 41 patients. Group A had patients with congenital missing teeth and patients with acquired missing teeth in Group B.

Informed consent was taken. They were asked to complete a questionnaire. A self-administered

questionnaire OHIP-14 applied to find quality of life. Proforma contained fourteen questions. 5-point likert scale was used to make responses and mark. The scores has inverse relationship to rectification in oral health related quality of life. Patients' age was between 14 and 28 years old and not more than six missed teeth either congenitally or acquired that was evaluated by history, clinical examination and radiographic assessment were included in this survey.

**Statistical Analysis:**

Mean and standard deviation for age and OHRQoL were considered. Frequency and percentage were applied for gender. Chi square test was applied for the comparison of OHRQoL scores among two groups. (P-values ≤ 0.05).OHIP result was stratified for lost dentate (≤3, >3) for the prediction of effect modifier.

**RESULTS**

In group A, 15 males and 26 females hypodontia patients though 17 males and 24 were females in group B. Subjects with one to three missed teeth, in hypodontia group score was 13.59±7.10 and acquired missing teeth patients was 11.10±5.11. There is not much variation in both A & B group.

Total OHIP scores in first group was 22.74±7.62 and in second group was 12.20±5.06 if 4-6 missing teeth. This shows an appreciable difference (Table 1). In the other fields there were no discrepancies in patients with congenitally missing teeth and patients with acquired missing teeth (Table 2,3,4). After data analysis it was observed hypodontia patients suffered more with psychological discomfort and psychological as compared to patients with acquired missing teeth.

**Table No.1: Comparison of OHRQoL**

No. of Missing teeth	Missing teeth	total patients	total score	level of significance
1-3 missing teeth	hypodontia	18	13.59±7.017	0.225 (not significant)
	Acquired missing teeth	20	11.10±5.119	
4,5 missing teeth	hypodontia	23	22.74±7.623	0.00 (significant)
	Acquired missing teeth	21	12.20±5.064	

**Table No.2: Functional limitation**

Responses	Query 1		Query 2	
	Congenital	Acquired	Congenital	Acquired
Not ever	11	19	33	39
Hardly if ever	6	8	4	2
Rarely	15	9	2	0
Sometimes	6	3	2	0
Very common	3	2	0	0
p value	0.18		0.409	

**Table No.3: Physical Pain**

Responses	Query 3		Query 4	
	Congenital	Acquired	Congenital	Acquired
Not ever	18	20	9	12
Hardly if ever	12	11	15	6
Rarely	10	10	10	14
Sometimes	1	0	5	8
Very common	0	0	2	1
p value	0.612		0.068	

**Table No.4: Psychological discomfort**

Responses	Query 5		Query 6	
	Congenital	Acquired	Congenital	Acquired
Not ever	3	4	2	8
Hardly if ever	3	6	6	7
Rarely	8	18	7	12
Sometimes	13	12	7	10
Very common	14	1	19	4
p value	0.001 significant		.002 significant	

**DISCUSSION**

There is not enough data regarding oral health related quality of life among early adults and teenagers patients with hypodontia. Fowler et al. in his survey reported that the incidence of hypodontia is not more than 1%.<sup>15</sup>

Therefore, subjects not more than 6 missing teeth considered as mild to moderate hypodontia has been incorporated in the survey.

OHIP is a commonly used question pattern to evaluate the Oral Health Related Quality of Life. Maria et al have already applied OHIP to assess OHRQoL in

patient hypodontia and acquired missing teeth patients.<sup>15</sup> Patients have age range of 14-28 years old were considered in the study so they can easily understand all questions and give accurate responses.

Wong et al revealed an important association among the missing teeth and more score of OHIP.<sup>11</sup> Various surveys on hypodontia patients found that it resulted in a major influence on functional and psychological affect on quality of life. Moreover, outcome of our study reported that an unusual difference in both groups in the field of psychological discomfort and disability with more scoring in patients with hypodontia. Because of fact, hypodontia patients faced problem of congenital absence of teeth which might badly impact on their personality, self respect and confidence. Additionally, hypodontia condition mostly association with any syndrome in which the remaining teeth present with abnormal morphology. Wong et al reported almost similar results.

In the present study results showed that the oral health related quality of life in patients with hypodontia was significantly compromised in contrast with the OHRQoL in acquired missed teeth patients as the tooth loss is increased.

## CONCLUSION

It was concluded that the oral health related quality of life in patients with hypodontia was significantly compromised as contrast to the oral health related quality of life acquired missing teeth patients as the number of lost teeth increased.

### Author's Contribution:

Concept & Design of Study:	Momina Akram
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Revisiting Critically:	Momina Akram, Muhammad Azeem
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**Conflict of Interest:** The study has no conflict of interest to declare by any author.

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