

POSTER NUMBER

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A Multi-center Study of the Relationship between Periodontal Disease Experience and Oral Health Quality of Life in Type 2 Diabetic Patients

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BACKGROUND

Due to the prevalence of diabetes mellitus and it was also the fifth of top ten causes of death in 2015. Also, studies show that periodontal disease is a major oral health problem encountered by patients. The issue about OHQoL in type 2 diabetic patients is an important part of modern life.

OBJECTIVE

There is a clear relationship between hyperglycaemia and periodontitis. This study aims to assess the relationship between periodontal disease and oral health-related quality of life in type 2 diabetic patients.

RESULT

Overall 53% of diabetic patients had history of periodontal disease. After adjusted for age, gender, duration of diabetes and education level, patients with periodontal disease experience were associated with level of OHIP ($\beta=2.01$, 95% CI 0.82 - 3.20). To further assessed with each dimension of OHIP scale, the patients with periodontal disease had significantly higher scores in three dimensions of the OHIP, including functional limitation ($\beta=0.36$), physical pain ($\beta=0.45$) and psychological discomfort ($\beta=0.70$).

CONCLUSION

Diabetic patients with experience of periodontal disease showed a poorer OHQoL, in which the psychological discomfort of OHIP the most significant. We suggest that diabetic patients with periodontal disease access to proper dental care and frequent dental visits to improve their OHQoL.

Table 2. Linear regression analysis of periodontal disease related to dimensions of OHIP-14

	Physical disability		Functional limitation		Physical pain		Psychological discomfort	
	β	(95%CI)	β	(95%CI)	β	(95%CI)	β	(95%CI)
Periodontal disease (Yes vs. No)	0.23	(-0.05, 0.51)	0.36	(0.12, 0.59)	0.45	(0.21, 0.70)	0.70	(0.36, 1.05)

	Psychological disability		Social disability		Handicap		OHIP	
	β	(95%CI)	β	(95%CI)	β	(95%CI)	β	(95%CI)
Periodontal disease (Yes vs. No)	0.17	(-0.04, 0.37)	0.05	(-0.11, 0.22)	0.05	(-0.13, 0.23)	2.01	(0.82, 3.21)

Adjusted the age, gender, duration diabetes education level

Table 1. Demographic characteristics (N=491)

Characteristics	No.	%
Gender		
Male	279	56.8
Female	212	43.2
Age, mean \pm SD	56.8 \pm 9.3	
Duration of diabetes		
<5	250	52.4
5-10	23	25.8
>10	4	21.8
Education level		
High school or below	52.1	
University	46.6	
Other	53.4	
Forgot	46.6	

