



# PRECISION DENTAL MEDICINE

## Correlation between the Yesavage Geriatric Depression Scale and the Oral Health Status of the Elderly Patient - Pilot Study

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### Background

The present study intends to assess the prevalence of signs and symptoms of depression in elderly people in the district of Viseu, and to analyze how these are associated to the oral health status and quality of life.

### Materials and methods

An observational descriptive cross-sectional pilot study was designed with a sample of 20 participants residing in two institutions in the municipality of Viseu, Portugal. Data collection was carried out through the application of a questionnaire composed of general sociodemographic and oral health aspects, the Geriatric Oral Health Assessment Index (GOHAI), the Yesavage Geriatric Depression Scale (GDS-15) and also through the application of the decayed, missing and filled permanent teeth index (DMFT index).

### Results

The mean age of the sample was  $80 \pm 7.74$  years, with 85% of the female gender. Of the participating individuals, 55% reported not having dental prostheses. The average GOHAI index was  $26.7 \pm 5.2$  (Fig.1). It was also found that 65% of the elderly did not have depression, 30% had "mild depression" and 5% had "severe depression" (Fig.2). For those categorized as "depressed", all considered to have an "average" to "poor" condition of their teeth (Fig.3) and almost 3/4 had low self-perception of quality of life related to gingival health (Fig.4). Even so, no statistically significant values were detected between the severity of depression, age and the DMFT index.

		GOHAI	
GOHAI Index	Mean	$26.7 \pm 5.20$	
	Median	27	
	Range of values	16 a 33	
		N	%
GOHAI Index (Self-perception)	Low	12	60%
	Moderate	8	40%
	High	0	0%

Fig.1: Sample Distribution According to the GOHAI Index.

		GDS-15	
Yesavage geriatric depression scale	Mean	$4.20 \pm 3.50$	
	Median	3	
	Range of values	0 a 12	
		N	%
Yesavage geriatric depression scale	No signs of depression	13	65%
	Signs of mild depression	6	30%
	Signs of severe depression	1	5%

Fig.2: Sample Distribution According to GDS-15.

		Without depression		With depression	
		N	%	N	%
Self-perception of the condition of the teeth Vs GDS-15	Average to Poor	6	66.7	4	100
	Good to Excellent	3	100	0	0
	Total	9	69.2	4	30.8
Chi square test	Value	1.733		Significance	$p = 0.188$

Fig.3: Chi-Square Test. Relationship between Self-Perception of Teeth Conditions and the Yesavage Geriatric Scale.

		Without depression		With depression	
		N	%	N	%
Self-perception of the condition of the gums Vs GDS-15	Average to Poor	6	46.2	6	85.7
	Good to Excellent	7	53.8	1	14.3
	Total	13	65.0	7	35.0
Chi square test	Value	2.987		Significance	$p = 0.085$

Fig.4: Chi-Square Test. Relationship between Self-Perception of Gum Conditions and the Yesavage Geriatric Scale.

### Conclusions

It was found that individuals with symptoms of depression have a greater tendency to manifest a low self-perception of quality of life related to oral health, as well as to report more problems with their teeth and gums, although this is not reflected in the results of the DMFT index.

