

Dental anxiety and oral health: results of the 6th German Oral Health Study (DMS • 6). Online Appendix

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ABSTRACT

Objectives: Dental anxiety (DA) is the fifth most common type of anxiety and leads to avoidance strategies that impact oral health and health-related quality of life. This study aimed at examining the prevalence of epidemiologically significant dental diseases, including dental caries, periodontitis, and tooth loss, according to DA severity.

Method and Materials: Younger adults (35- to 44-year-olds) and younger seniors (65- to 74-year-olds) with available data on self-reported DA using the modified DA scale (MDAS) were selected from the cohort of the population-representative 6th German Oral Health Study (DMS • 6). The prevalence of oral diseases was compared among participant groups with different levels of DA (no/mild, moderate, and severe/phobia).

Results: Among younger adults and younger seniors, 26.4% and 22.8% reported DA, respectively. In these age groups, 9.5% and 7.6% reported severe DA or phobia, respectively, and the prevalence was higher among women in both age groups. Although the overall decayed, missing, filled teeth scores did not differ significantly according to DA levels, the number of untreated caries lesions and missing teeth increased with increasing anxiety levels. In younger seniors, the number of restored teeth and filled and sound teeth index decreased with increasing DA severity. Similarly, periodontal treatment needs and prevalence of advanced periodontitis (stage III and IV) increased with higher DA levels. Moreover, the number of missing and non-replaced missing teeth increased significantly with DA, whereas edentulism was not significantly different between the DA groups.

Conclusion: The prevalence of dental caries, periodontitis, and missing teeth increases with even moderate DA and is worse in patients with severe DA/phobia.

KEYWORDS: cross-sectional studies, dental anxiety, dental care, dental caries, dental health surveys, dentists, DMS 6, epidemiology, Germany, oral health, periodontitis, prevalence

Table of contents

Appendix 1:

Table A1.1: Baseline characteristics of study participants for younger adults (35- to 44-year-olds) and younger seniors (65- to 74-year-olds) by self-reported amount of dental anxiety; cut-off score for dental phobia of 19 according to Humphris.....	3
Table A1.2: Prevalence of self-reported dental anxiety in younger adults (35- to 44-years-olds) and younger seniors (65- to 74-years-olds); cut-off score for dental phobia of 19 according to Humphris.....	3
References.....	3
Authors.....	4
Impressum.....	5

Appendix 1

Table A1.1: Baseline characteristics of study participants for younger adults (35- to 44-year-olds) and younger seniors (65- to 74-year-olds) by self-reported amount of dental anxiety; cut-off score for dental phobia of 19 according to Humphris.

Characteristic	35- to 44-year-olds		65- to 74-year-olds	
	No high DA (5-18)	High DA (19-25)	No high DA (5-18)	High DA (19-25)
No of participants (n)	833	40	725	26
Age, years	40.0 ± 3.0	40.9 ± 3.0	69.8 ± 2.8	69.0 ± 3.7
Gender				
Male	425 (51.0%)	11 (27.5%)	342 (47.2%)	10 (38.5%)
Female	407 (48.9%)	29 (72.5%)	383 (52.8%)	16 (61.5%)
Diverse	1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Data are presented as number (percentage) or mean ± standard deviation based on unweighted data. DA, dental anxiety; MDAS, modified dental anxiety score

Table A1.2: Prevalence of self-reported dental anxiety in younger adults (35- to 44-years-olds) and younger seniors (65- to 74-years-olds); cut-off score for dental phobia of 19 according to Humphris.

	35- to 44-year-olds	65- to 74-year-olds
No. of participants (n)	873	751
MDAS sumscore	9.1 (8.7; 9.4)	8.5 (8.2; 8.8)
Dental anxiety categories by MDAS sumscore		
No high DA (5-18)	95.9% (94.0; 97.2)	96.7% (95.0; 97.8)
High DA (19-25)	4.1% (2.8; 6.0)	3.3% (2.2; 5.0)

Data are presented as unweighted numbers (n) and weighted percentages or weighted means (with 95% confidence interval).

DA, dental anxiety; MDAS, modified dental anxiety score

References

Humphris GM, Morrison T, Lindsay SJ. The Modified Dental Anxiety Scale: validation and United Kingdom norms. *Community Dent Health* 1995;12:143–150.

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