

The interdependency of dental anxiety and oral health-related quality of life in Switzerland

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The aim of this study was to collect epidemiological evidence of dental anxiety and oral health-related quality of life for an older adult population in Switzerland as well as to assess the impact of anxiety on oral health and on patients' self-perceived quality of life. The hypothesis tested whether dental anxiety and phobia would directly affect oral health negatively.

Three dental anxiety questionnaires were used: the dental anxiety scale (DAS, Corah, 1969), the DAS-based hierarchical anxiety questionnaire (HAQ, Jöhren, 1999) which specifically considers the fear of certain treatment situations, and the visual analogue scales (VAS, Aitken, 1969) as a graphical alternative to categorizing questionnaires. Oral health-related quality of life was measured with the German version of the 14 item Oral Health Impact Profile (OHIP, Slade und Spencer, 1994). 118 women (50.6%) and 115 men (49.4%) participated in the study conducted at the University of Berne, Switzerland, with 69.1% of them above the age of 50. A combination of OHIP with the three anxiety-exploring questionnaires provided a wide range of information on extent, causes, and effects of dental anxiety related to oral health.

No significant differences in answers between women and men could be established. The average degree of fear according to HAQ was 25.8 ± 9.5 . The average DAS score was 10.4 ± 3.8 and the one for VAS 33.2 ± 32 . A comparison of answers regarding oral health (OHIP) and dental anxiety (DAS, HAQ, VAS) showed a clear interdependency. Highly anxious patients according to HAQ reached significantly higher scores ($p < 0.001$) in VAS, DAS, and OHIP than moderately or little anxious ones. The average OHIP score was 15.7 ± 12.6 . The average little anxious patient according to HAQ reached an OHIP score of 13.2 ± 11.0 while the average highly anxious patient reached one of 25.4 ± 14.1 .

A further analysis with a Kruskal-Wallis test, dividing patients into age groups, showed a correlation between age and questionnaire scores with $p_{VAS} = 0.005$, $p_{HAF} = 0.005$, $p_{DAS} = 0.040$ und $p_{OHIP} = 0.013$. Patients older than 50 years are less fearsome of dental treatment while their higher OHIP scores indicated – as was to be expected – more oral health-related problems. The specifically quality-of-life targeted OHIP question 3 showed a high correlation to the anxiety groups in all three dental anxiety questionnaires: highly anxious people answered it positively more often than little anxious ones.

Concluding the study, the hypothesis stated above could be confirmed: dental anxiety is associated with the impact of oral health-related quality of life. Those expressing higher levels of dental fear are among those with poorer oral health-related quality of life. However, with higher age, this trend seemed to lessen.