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

Vanessa Gisler, Renzo Bassetti, Regina Mericske-Stern & Norbert Enkling
Department of Prosthodontics, School of Dental Medicine, University of Bern, Switzerland

Introduction & Aim

- To collect epidemiological data of dental anxiety and oral health-related quality of life for an older adult population in Switzerland (at the University of Bern).
- 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.

Materials & Methods

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.
- 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).

Results

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 little anxious patient according to HAQ reached an OHIP score of $13.2 \pm 11.0$ while the average highly anxious patient reached one of $25.4 \pm 14.1$.

A further analysis with a Kruskal-Wallis test, dividing patients into age groups, showed a correlation between age and questionnaire scores with $p_{\text{VAS}} = 0.005$, $p_{\text{HAQ}} = 0.005$, $p_{\text{DAS}} = 0.040$ und $p_{\text{OHIP}} = 0.013$.

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.

Conclusion

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.