## **ABSTRACT**

Dental caries is a preventable multifactorial infectious disease which results from the overall impact of biological, behavioural and psychosocial factors. The environment of every individual plays a role in its aetiology, too. The content and form of the diet, regularly performed oral hygiene, fluoride intake and continuous dental care act as an unquestionable part in the prevention of dental caries. "Quality of life" or "well-being" is nowadays an emphasized aspect in most of the studies. There is one factor linked to the well-being of a child discussed on a field of paediatric dentistry - the dental fear.

The four following studies presented in this dissertation describe the above mentioned topic. The first surveys the dentist's relationship with the child patients and looks for the reasoning why the children were referred to the faculties and specialists. The second pursues the environmental factors which influence the perception of dental environments in pre-schoolers and the fear of even the most common dental procedures. The third performs an evaluation of the dental fear level in a sample of preschool children in the Czech Republic, with correlation to their dental status and geographic location. This study also deals with a possible use of colours as another tool for dental fear evaluation in preschool children. The fourth study pursues the dental fear level evaluation in children treated by conscious sedation with midazolam using behaviour description and its correlation to the performed dental procedures.

A higher level of dental fear was found in girls, younger pre-schoolers and children with untreated carious teeth. Dental practice environments influence the children in the following ways: More anxious children prefer decoration in dental practices and more colourfully dressed dentists. Most of the children prefer female dentists. Visiting the dentist is perceived as an unpleasant one by most children, leading to dental fear of future appointments. There is an improving dental status in children with increasing amount of inhabitants in the geographic location. A reluctance to the intake of medication is a predictor of uncooperative behaviour during the conscious sedation with midazolam.

Prevention of dental caries has an influence on dental fear development. Pre-schoolers are usually not mentally mature enough to deal with an invasive dental treatment. There is a need for convenient preventive programs to decrease the prevalence of dental caries even in pre-schoolers, and to reduce the need of dental caries treatment, which is tightly connected to dental fear development.

## Keywords

Dental fear, pre-schoolers, prevention, dental office environment, sedation, midazolam.