

## DENTAL FEAR AND PREMATURE TOOTH EXTRACTION

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### ABSTRACT

Dental avoidance is a high risk factor for development of odontophobia and poor oral health including premature tooth extraction in children.

The aim of this study is to evaluate the connection between dental fear and premature tooth loss. Subject of monitoring of the clinical research were 140 school children with mixed dentition. The clinical group consisted of 90 children with prematurely extracted teeth. The patients from the clinical group were divided into three groups of 30 patients. The control group consisted of 50 children with intact denture. A special questionnaire was filled in by the parents of the examined children regarding the dental fear of their children, whether there is such fear or not. The results show that while in the control group the majority of children are not afraid of dental treatment – 79.2%, in the groups surveyed more than half of the children said they were afraid of dental treatment, especially the ones from the third group – 57.7%.

**CONCLUSION:** Children with prematurely extracted teeth have a higher level of dental anxiety due to which they suffer from poor dental health and early tooth loss. The use of behavioural techniques is recommended in order to improve their oral health.

**Keywords:** dental fear, premature extraction, primary teeth

### INTRODUCTION

Dental fear, or dental anxiety, presents a problem for the treatment of patients suffering from it, and also for the dentist (1,2). A high level of dental anxiety can influence the dental treatment in such way that it becomes almost impossible for the dentist

to complete the treatment (3). Many researches have shown that dental anxiety is one of the reasons for not seeking dental treatment (1,4,5,6,7). Fear is often considered to be an essential emotion, a response in times of danger. It is therefore normal for younger patients to be afraid of new and potentially threatening situation like pulpitis and periodontitis treatment. It happens often that in such situations parents prefer to delay the treatment which leads to premature tooth extraction in children (8,9,10).

**The aim** of this study is to evaluate the connection between dental fear and premature tooth loss.

### MATERIALS AND METHODS

Subject of monitoring of the clinical research were 140 school children with mixed dentition.

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Table 1. Distribution of children from the surveyed groups according to the presence of fear of dental treatment

Groups	Is your child afraid of dental treatments?						Total	
	No		Yes		I cannot decide		Number	%
	Number	%	Number	%	Number	%		
Control group	38	79.2	1	2.1	9	18.8	48	100
Group 1	9	45.0	7	35.0	4	20.0	20	100
Group 2	6	25.0	13	54.2	5	20.8	24	100
Group 3	7	26.9	15	57.7	4	15.4	26	100
Statistical significance	$\chi^2=37.56$ , $df=6$ , $P<0.0001$							

The clinical group consisted of 90 children with prematurely extracted teeth. The patients from the clinical group were divided into three groups of 30 patients. The control group consisted of 50 children with intact denture.

- ❖ Patients who have had one or more teeth extracted, who have come to the clinic during the first 2 months after the extraction and have no orthodontic problems.
- ❖ Patients with prematurely extracted temporary teeth 6 or more months earlier, with mild orthodontic problems.
- ❖ Patients with prematurely lost temporary teeth 6 or more months earlier who also have severe orthodontic problems (II and III class Angle).

The control group consisted of 50 children of the same age, who have had no premature extractions.

A special questionnaire was filled in by the parents of the examined children regarding the dental fear of their children, and whether there is such fear or not.

We used chi square test to test the hypothesis that there is no difference in the proportion of children experiencing fear between the groups. The level of statistical significance is set at alpha level 0.05.

## RESULTS

A difference was found in the distribution of the groups according to the answer to the question „Is your child afraid of dental treatments?”. While in the control group the majority of children are not afraid of dental treatment – 79.2%, in the clinical groups surveyed more than half of the children said they were afraid of dental treatment, especially the third group – 57.7% ( $P < 0.0001$ ) (Table 1).

## DISCUSSION

These results indicate that children who do timely visits to the dental office (control group), before the emergence of subjective symptoms, have less fear of dental treatment than patients from the studied groups. The dental treatment of children in the control group is most often prophylactic, non-invasive and painless. At the same time children from the examined groups associate their visit to the dentist with pain and therefore are afraid of dental treatment. Some of them have negative previous experience in the dental office. The use of behavioural techniques is recommended to influence the behaviour of children in order to reduce their fear of dental treatments (11).

## CONCLUSION

The children with prematurely extracted teeth have a higher level of dental anxiety due to which they have poor dental health and early tooth loss. The use of behavioural techniques is recommended in order to improve their oral health.

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