

THE RELEVANCE OF THE EMOTIONAL FACTOR IN PAEDIATRIC DENTISTRY

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Abstract. Aim. The present survey consists in a psycho-sociological analyze aiming at determine the emotional factors that influence the child motivation and behaviour at dental office – before, during and after the treatment. **Material and methods.** The study was carried out on a number of 110 children aged between 6-11 years and on a number of 100 parents, from Iași city. The relevant emotional and attitudinal reactions were determined using a questionnaire by interview. **Results.** In the studied sample, most of the children had fear of dentist (61.8%). The chance of girls having fear towards dentist was 2.46 higher compared to boys (OR=2.46, $p=0.025$, 95%CI). The results of un-parametric correlation indicated the presence of a significant considerable correlation between the presence of fear in the parents and the presence of fear in their children ($r=0.74$, $p<0.01$, 95%CI). **Conclusions.** A correct evaluation of the emotional reactions of the child offers the possibility to pick up the most appropriate methods and techniques of communication and behavioural shaping with direct impact on the quality of dental management with long term psycho-somatic and psycho-social implications.

Key words: fear, child, behavioural management, questionnaire

Rezumat. Scop. Studiul de față este o analiza psiho-sociologica a factorilor care influențează motivarea și comportamentul copilului la cabinetul stomatologic – înainte, în timpul și după efectuarea tratamentului stomatologic. **Material și metodă.** Studiul a fost întreprins pe un lot de 110 copii, cu limite de vârstă 6-11 ani și pe un lot de 100 de părinți, din municipiul Iași. Metodologia de lucru utilizată, relevantă pentru tipurile de reacții emoționale și de atitudine ale copilului la cabinetul stomatologic, a constat în aplicarea unui chestionar prin interviu. **Rezultate.** În lotul studiat un procent de 61.8% dintre copii au prezentat frică de stomatolog. Șansa ca fetițele să prezinte frică de stomatolog a fost de 2.46 ori mai mare comparativ cu băieții (OR=2.46, $p=0.025$, 95%CI). Rezultatele testului de corelație neparametrică a indicat prezența unei corelații semnificative între prezența fricii la părinți și regăsirea acesteia la copii lor ($r=0.74$, $p<0.01$, 95%CI). **Concluzii.** O evaluare corectă a reacțiilor emoționale ale copilului oferă posibilitatea alegerii celor mai adecvate metode și tehnici de comunicare și modelare comportamentală, cu impact direct asupra calității managementului stomatologic, cu implicații psiho-somatice și psiho-sociale pe termen lung.

Cuvinte cheie: frica, copil, management comportamental, chestionar

INTRODUCTION

Knowledge of the emotional reaction of the child at dental office represents an actual issue at national and international level that imposes as a

necessity not only from theoretical view point but especially due to its practical (clinical) indispensable value.

In order to understand the psychological development of the child, we should

approach her/him as a "becoming existence" with particularities for the childhood stages; the child must not be related to the adult pattern and must not be consider an "adult in miniature" (1,2). The child must be approached from the view point of the changes that gradually take place along her/his development, under the influence of external and internal factors.

The child emotional reactions at dental office are dominated by fear that is generated by the child impossibility to find a stable base for her /his reactions (3, 4, 5). The fear must be differentiated by the sentiment of fear that reflects the complex relations between man and environment and that are developing with the educational process.

The success and the quality of dental medical practice depend mainly on

the existence of an efficient communication between dentist and little patient (1, 2, 3). The dental practitioner communications reserves with child patient are natural and impose a multi-valence of paediatric dentist, materialized by its intellectual, affective emphatic and psychological qualities.

MATERIAL AND METHOD

The study is an integrative part of an interdisciplinary joint longitudinal pilot study carried out by the Paediatric Dentistry Department, Faculty of Dental Medicine, U.M.F. "Gr.T. Popa" Iași, on a number of 110 children (67 girls and 43 boys), aged between 6-11 years old, from an Iași school community and on a number of 100 parents of these subjects (fig.1).

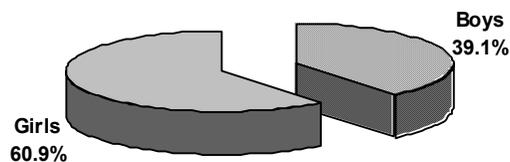


Fig. 1. The structure of the study group by gender

There were also performed a complex clinical and para-clinical investigations that were considered relevant for the investigation of subjects.

The use of tests and questionnaires highlighted the degree and the capacity of mental reflection of child's world by the angle relation with dental office and paediatric dentist.

To the whole study group it was applied a mixed questionnaire with 19 items (11 closed questions, 6 open questions and 2 multi-valence scale), one addressed to the child and the other to the parents.

They offered data that allowed us to evaluate the child fear, its expectation regarding the paediatric dentist as well as the family environment, condition

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and the manner in which is approached "the problem" of dental office visit by the little patient parents. The interview also investigated if the visit at dental office was the first as well as the impact of the first visit at the dental office on the child; there were also investigated the factors that induced fear to the child at dental office.

RESULTS

The mean age of the children from the study group, analyzed by gender, did not present statistical significant differences, the level of ANOVA test significance level being up to its reference limit ($p=0.35$, 95%CI) (fig. 2). 8.2% of children (3.6% girls and 4.5% boys) did not go to dental office till the moment of present interview (fig. 3).

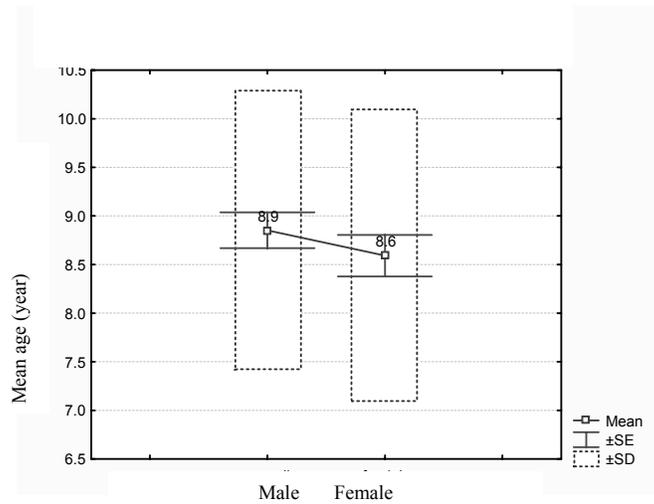


Fig. 2. Study group mean age according to gender

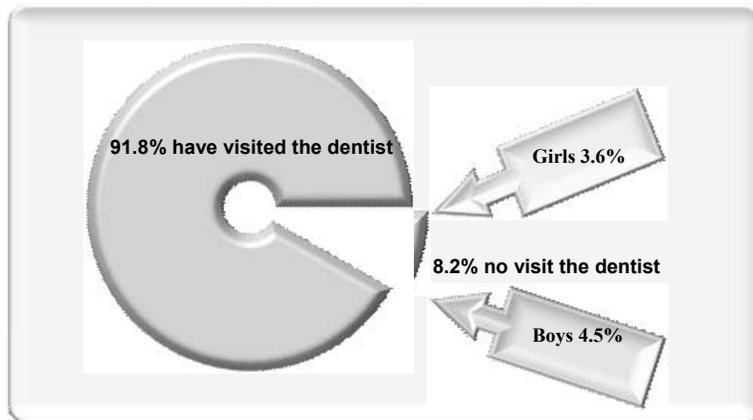


Fig. 3. Previous visit to a dental office

Fear of the dentist was present in 61.8% of children. Most of girls

(42.7%) have had fear, in comparison with boys (19.1%) (fig. 4).

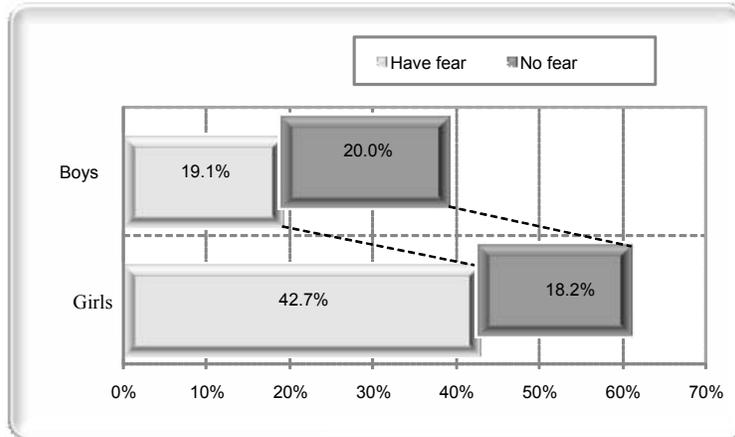


Fig. 4. The distribution of "fear of dentist" in children by sex

The chance of girls having fear towards dentist was 2.46 higher compared to boys (OR=2.46, $p=0.025$, 95%CI). The study indicated a significant difference between the numbers of girls with fear as compared with the number of boys.

Regarding the previous visits to a dental office, it was found out that 35.5% of subjects had an unpleasant experience of dental office. A higher percentage - 56.4% - was represented by the subjects that have reported neutral or relative pleasant experience (fig.5).

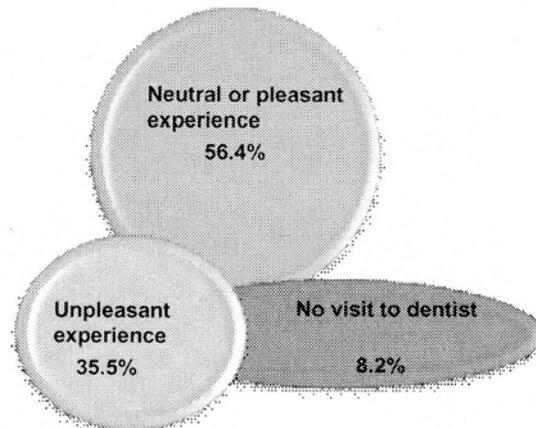


Fig. 5. The distribution of children according to their feelings in dental office

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Relatively to labours or armamentarium that can induce fear, there was noticed a high incidence of children who's fear was generated by the extraction pliers

(67.2%), injection (63.6%) and drill (52.7%), data that are in concordance with the data from literature in the field (5,7) (fig. 6).

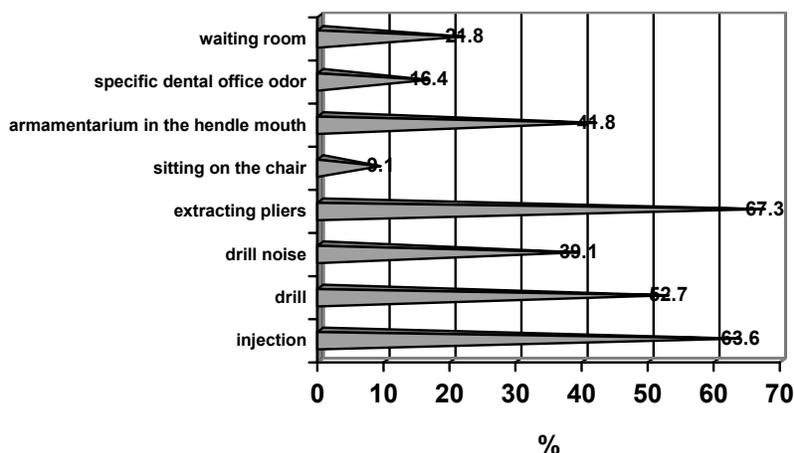


Fig. 6. Factors that generate fear at dental office

There was a significant association between the children's age and the type

of dental labour that generates fear (p=0.0086, $\chi^2= 33.6$, 95%CI) (tab. 1).

Table 1. The parametres estimated in testing the association childrens age vs. dental labours that generates fear

	χ^2	df	p
			95% CI
χ^2	33.6154	df=10	0.00048
ML Chi-square	31.2548	df=10	0.00056
r (Spearman Rank R)	0.68112		0.00864

The results of un-parametric correlation indicated the presence of a significant considerable correlation between the presence of the fear at

parents and the presence of fear at their children (r=0.74, p<0.01, 95%CI).

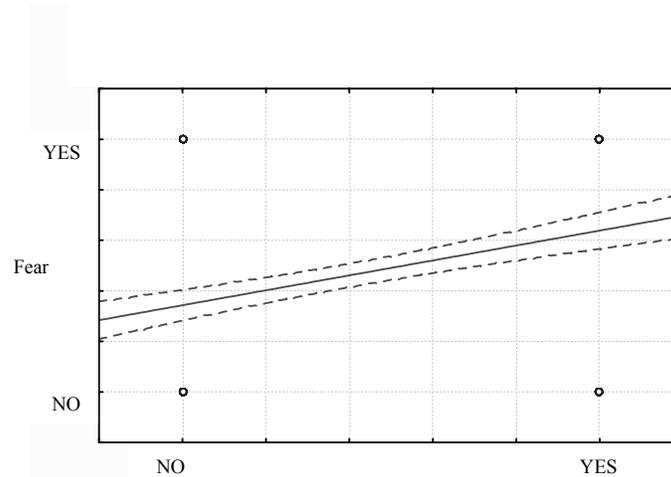


Fig. 7. Parameters estimated in correlation of dental fear – parents vs children–

It was revealed that 61.8% of children (68 children) had more fear towards dental practitioner. The others 38.2% (42 children) sustained that they were not afraid. The differences between those with fear toward dentists (61.8%) and the ones with an unpleasant experience (35.5%) can be explained by the fact that the dentist did not cause pain during dental treatment ("it doesn't hurt") or by the dental office environment ("because it was beautiful in the dental office"), or by the manner in which the dentist behave toward little patient ("the dentist was gentle") (2,3). The number of children (43%) who's parents were afraid of dental practitioner was closed to the children which had a higher level of fear (31.9%) and in a way explains the effect of the parental anxiety on the children in the family framework. The parents with a high level of fear and anxiety have a

tendency to negatively affect their child behavior.

Dental treatment take place in oral cavity – a zone that is very sensitive to emotional influences – reason for which another factor that can induce fear to child patient is represented by the fact that somebody handle with dental armamentarium in the mouth. 41.81% (46 children) indicated this matter.

The interview of parents also identified:

- the parents attitude towards dental problem of their children;
- the impact that a dental treatment had on themselves and on their children;
- data about the manner in which the parents can influence their child's attitude towards dental treatment;
- data about the parents medical education.

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CONCLUSIONS

The optimal management of the dental practice supposes a competent knowledge of the child psychology. If the practitioner knows about "inner self" of the little patient, then is possible to handle and to prevent some aggressive reaction of refuse that could compromise the goal of dental treatment.

The conclusions of the tests and questionnaires used led us to the idea that fear towards dentists appears in the childhood for the majority of persons. Therefore, first contact with the paediatric dentist should be with lack or minimum of physic traumas so that in the future to lead to a safe atmosphere for the children. That's why the existence of a children's positive attitude towards dental treatment constitutes a major objective as well as the same time an efficient strategy for the training of some favorable behaviors.

A correct evaluation of the emotional reactions of the child offers the possibility to pick up the most appropriate methods and techniques of communication and behavioral shaping with direct impact on the quality of dental management with long term psycho-somatic and psycho-social implications.

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