

Review

From: Prof. Dr. Radosveta Stoyanova Andreeva-Borisova, MD, Head of the Department of Pediatric Dental Medicine, MU - Varna, member of the scientific jury, according to order № P-109-98 /04.03.2022 of the Rector of MU-Varna.

Subject: Dissertation on "**Influence of parents on children's oral health**" for the award of educational and scientific degree "Doctor" in the scientific specialty "**Pediatric Dentistry**" professional field 7.2. **Dentistry**, field of higher education 7. **Health and sports**.

Author: Dr. Nikolay Vasilev Stanev, PhD student in full-time education, in the doctoral program "Pediatric Dentistry", Department of "Pediatric Dentistry", Faculty of Dental Medicine, Medical University - Varna

Scientific adviser: Assoc. Prof. Dr. Lilia Borisova Doichinova, Ph.D. habilitated in the professional field 7.2. Dental Medicine, Medical University – Sofia

Brief biographical data of the doctoral student

Dr. Nikolay Vasilev Stanev was born in 1988 in the town of Dobrich. Part of his secondary education he received in Moscow 236. School Alumni of EG "Geo Milev" - Dobrich. In 2012 he graduated in Dental Medicine at the Medical University - Sofia. In the period 2012-2014 he was a part-time assistant at the Department of Pediatric Dentistry at the Medical University - Varna, where after a competition in 2017, he was appointed full-time assistant. At the moment he is an assistant in the Department of Pediatric Dentistry at the Medical University - Varna. He owns a private practice in the town of Pirdop.

He is fluent in English, Russian and French. He is a member of the Bulgarian Agrarian Union, the National Association of Pediatric Dentists, a member of the Bulgarian Association of Hypnosis and Hypnotherapy.

General presentation of the procedure and the doctoral student

The presented set of materials on paper and electronic media is complete. It is presented within the statutory period and in accordance with the Regulations for the development of the academic staff at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna.

Notes and comments on the documents

The dissertation is written on 240 standard pages in two parts - the first part - the dissertation (147 pages) and the second part - appendices (93 pages). It is illustrated with 29 tables, 14 diagrams and 4 figures. The bibliography includes 402 literature sources, of which only 5 are in Cyrillic and 397 in Latin. The dissertation includes an introduction, literature review, purpose, tasks, hypotheses, material and methods, results and discussion, conclusions, conclusion, contributions, recommendations, scientific publications related to the dissertation, bibliography and applications. of the Law for development of the academic staff of the Republic of Bulgaria.

The doctoral student has submitted three publications in connection with the topic of the dissertation and one participation in a poster session (29th Annual Assembly of IMAB - 9-12 May 2019). In all three publications Dr. Stanev is the first author.

Relevance of the topic and expediency of the set goals and objectives

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Parents are the main social force influencing children's development, including oral health. Through their example, they pass on their knowledge and habits for dental prevention to their children.

Although, for the most part, oral diseases are preventable, they continue to be a serious health problem affecting people of all ages. Dental caries is a consequence of prolonged exposure to risk factors. Any impact on caries risk factors aimed at reducing them during childhood is of great importance for the future oral health of the individual. The topic of oral health literacy and the relationship with the oral health of the individual has aroused great interest in recent years worldwide. Health literacy is a strong predictor of an individual's health, health behavior and results. The low level of health culture of parents leads to problems related to the implementation of preventive measures, delays in diagnosing medical problems, increased cost of health care and increased morbidity.

This dissertation aims to study the factors in parents that affect the oral health of their children. The topic is relevant, given the high level of caries among Bulgarian children, despite the available prevention programs at the national level.

Problems related to health literacy have been studied mainly in the last three decades. The relevance of the topic is confirmed by the lack of such studies in our country.

Knowledge of the problem

From the presented dissertation it is evident that the doctoral student shows knowledge of the researched problems - the factors influencing the oral health of children, the level of health literacy of parents, employment, level of education, level of motivation. The trainings attended in the field of motivational interviewing, hypnotherapy, communication with patients also contribute to this.

Dr. Stanev knows and follows the standards and protocols in the preparation of motivational materials, diagnosis and assessment of caries risk in the field of pediatric dentistry (NSLD - National Association of Pediatric Dentists, AAPD - American Academy of Pediatric Dentistry, WHO - World Health Organization)

Dr. Nikolay Stanev has made a detailed analysis of the literature on the topic in a volume of 46 pages, which gives him reason to formulate the purpose of his study: "To study the relationship between health knowledge of parents and oral health of their children."

The following tasks have been set for the realization of the goal:

- 1) To determine the awareness of parents about oral health and prevention of oral diseases.
- 2) To assess the risk of caries in children of the parents included in the study.
- 3) To study the relationship between demographic indicators and oral health literacy of parents and the development of dental caries in their children.
- 4) To create and implement a program for training and motivation of parents to improve their health literacy for oral health.
- 5) To create motivational materials for parents and their children.
- 6) To evaluate the effect of the implementation of the program for health education of the parents and the oral risk profile of their children.

Material:

The doctoral student interviewed 243 parents in order to establish their oral health literacy. Clinical examinations were performed on 243 children aged 6 to 10 years to establish the oral risk profile and dental status, before and after the implementation of a preventive program to motivate and

improve oral health. The material of the research is parents and their children in all tasks. There are no observation units for parents

Methods:

The methodology of the dissertation is described in 7 pages. A detailed description of the criteria for selecting patients, the number of patients included in the study, the diagnostic scales and other criteria used in the course of the research was made. It describes what indicators will be examined for each participant in the study. Different research methods were used to perform and evaluate the set tasks: survey method and semi-standardized interview, clinical methods and statistical analysis. There is some confusion of methods, structure of research, elements of methodology.

It is good to describe the methods as general research methods and to list them one after the other and to explain in brackets which task the respective method is used for.

The survey method is presented as a survey with an assessment of relative shares in a group of surveyed parents. Caries risk assessment is not a method, but part of the methodology of clinical research, which should explain why it is done. Fluoride prophylaxis, the child's diet, dental status are all elements of the risk assessment. There is a discrepancy in the specified diagnostic threshold. The text says that the threshold DIMF (T + t) is selected, and in the attached table you can see D1a, D1b. All the so-called "methods" of the author are elements of the risk assessment. Statistical methods could be refined - eg alternative analysis, correlation analysis, etc.

The main requirement for a scientific study is to select two groups - experimental and control. In this case, the experimental and control group should be for both children and parents. There is a lack of methodology for creating, content and application of the program for training and motivation of parents. Experimental methods (in this case application of the program) are conducted only in the experimental group of parents. In the control they are not applied. This is the only way to get reliable results. It would be good to describe a methodology for influencing the children in the experimental group. The supervisor would be good to monitor the correct structure, the correct formulation of goals, objectives, material, methods, methodology and results.

The results are illustrated, interpreted and presented with figures, tables and graphs of their own research in connection with the given materials and methods. A shortcoming in the "results" chapter is that under the relevant tables and diagrams there is a description and repetition of the data from them. Only percentages are incorrect in the charts, without digital data. Accompanying tables are required. Data from the control group are missing, probably due to an error in the research methodology.

For the data from 23 to 37 questions of the incoming survey no table is given.

Table 7, entitled 'Oral hygiene', shows the percentage distribution of children in the three low, medium and high risk groups. However, there are no average values of the oral hygiene index, which could be compared later. Here, non-parametric analysis must be applied as a statistical method and used to determine the mean values, standard deviation, which are compared with the t-test. In the table. 20 and 21 there is no clear indication of the relationship between parents' knowledge and children's oral health. There is no grading of the influencing factors. There is no link with oral hygiene and carbohydrate nutrition, which are common comparison parameters at the end of the study. The methodologies for the fifth and sixth must be specified. After the implementation of the program for parents, children should be tested again for the main parameters of dental health - oral hygiene, carbohydrate nutrition, number of reversible carious lesions. If there is a decrease in the mean values for OHI, reversible carious lesions and children's behavior in relation to carbohydrate nutrition, compared to the beginning, this would mean that the program works and can be implemented.

The conclusion and conclusions correspond to the presented results.

Contributions and significance of development for science and practice.

The self-assessment of the contributions in connection with the dissertation includes: 3 contributions with original character, 1 contribution with practical-applied character, 4 contributions with confirmatory character:

With an original character for the country:

1. For the first time in our country the assessment of the health literacy for the oral health of the parents of children from 6 to 10 years of age is made.
2. For the first time in our country an analysis of the demographic characteristics of parents and its relationship with the intensity of dental caries in their children.
3. For the first time in our country a motivational interview was provided for motivating parents of children aged 6 to 10 to improve the oral health of their children.

With practical-applied character:

1. A program for increasing the health literacy in relation to the oral health of the parents of children from 6 to 10 years of age has been developed.

Confirmatory:

1. The connection between the oral health literacy of parents and the intensity of dental caries in their children has been proven
2. It has been proven that increasing the health literacy of parents affects the oral risk profile for the development of dental caries in their children.
3. The connection between the education of parents and the intensity of dental caries in their children has been proven.
4. The role of motivational interviewing for motivating parents and improving their health literacy has been proven.

Evaluation of dissertation publications.

3 full-text publications are presented. The volume of scientific articles is completely sufficient and corresponds to the legal requirements for dissertation work.

Abstract

The abstract of the dissertation presents its content in abbreviated form and meets the requirements of the ZRASRB and the regulations of MU-Varna. The main results, conclusions and contributions of the dissertation are clearly reflected.

CONCLUSION

The dissertation meets the requirements of the Law for the development of the academic staff in the Republic of Bulgaria, the regulations for application of the law and the Regulations of the Medical University - Varna. The scientific research shows that the doctoral student Nikolay Stanev shows serious interest and determination in his research and has in-depth theoretical knowledge and professional skills in the scientific specialty "Pediatric Dentistry" in the professional field 7.2

Dentistry, higher education 7. Health and Sports . A number of scientific and clinical qualities and skills for conducting scientific research have been demonstrated. I attribute the described critical remarks related to the dissertation to serious omissions in the duties of the supervisor and I am convinced that with adequate guidance they would be avoided.

The above gives me a reason to give a POSITIVE assessment of the dissertation on "**Influence of parents on children's oral health**", I will vote "YES".

03.07.2018
Varna

Signature :.....
/ Prof. Dr. Radosveta Stoyanova Andreeva-Borisova, MD./

