

REVIEW

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About: Dissertation defense for awarding the educational and scientific degree
"Doctor of Philosophy - PhD"

Field of higher education 7. Medicine and sports
Professional field 7.2 Dentistry
Doctoral program Pediatric Dentistry

Author: **d-r Nikolay Vasilev Stanev**

Form of doctoral studies: independent preparation

Department of Pediatric Dentistry Faculty of Dental Medicine Medical University "prof. dr. Paraskev Stoyanov" – Varna

Topic: **"Influence of parents on children's dental health"**

Supervisor: Assoc. Prof. Dr. Liliya Borisova Doitchinova, PhD

General presentation of the procedure and the doctoral student

As an external member of the Scientific Jury, I present an opinion on completed dissertation in pursuance of Article 32 of the Regulations for the application of LDASRB , order № P-109-98 / 04.03.2022 of the Rector of MU-Varna and according to protocol №1 / 16.03.2022 from the first meeting of the Scientific Jury

Dr. Nikolay Stanev was born on May 27, 1988 in the town of Dobrich. He finishes his high school education at the Geo Milev Language High School in Dobrich in 2006. During the same year began his studies at the State Property Fund, MU - Sofia, graduated in 2012 and began to practice as a dentist in AIPPMPDM "Nika Dr. Stanev". " He has been working as a part-time lecturer since 2012-2014, and since January 2017 he has been appointed as a full-time assistant in the Department of Pediatric Dentistry, FDM , MU-Varna. He was enrolled as a doctoral student in independent training on February 1, 2019, and is deducted from 04.03.2022 with the right to protection by order № P-109-98 / 04.03.2022 of the Rector of MU - Varna.

Relevance of the topic

Parents influence children as a model of behavior and a source of health knowledge. Some specific health habits of parents, such as lack of oral hygiene and frequent consumption of sweet foods and beverages are important factors in children's health behavior. Unhealthy advice and actions or inaction of parents, as well as severe neglect on their part can negatively affect the oral health of their children.

Dentists need to focus their efforts on improving health awareness, parental behavior and attitudes towards oral health.

The concept of the level of health knowledge applies to all aspects of health, including oral health, which has an impact on the general health.

I consider the choice of dissertation topic to be relevant and reliable.

Structure of the dissertation

The dissertation corresponds to the approved norms for dissertation in FDM, MU - Varna, in accordance with the requirements of LDASRB.

The total volume is 240 pages, of which 147 pages are a dissertation, 29 tables, 14 diagrams and 6 figures and 93 pages of appendices. The bibliography includes 402 literature sources, of which 5 in Cyrillic and 397 in Latin.

Knowledge of the problem

The literature review has a sufficient volume - 40 pages. A review of The health knowledge of the parents as a factor for the child's oral health and certain aspects of the prevalence of dental caries and the factors that determine it is done. An assessment of the risk factors of developing dental caries are considered. The worldwide concept of health literacy as well as the importance of general and dental health is presented. Dr. Stanev demonstrates knowledge about the relationship between education and knowledge of parents and the oral health of their children. The literature review is informative on key aspects of health education and training. Its structure provides summary information on knowledge in the field of public health. The literature review concludes with some unresolved issues on the topic in our country and focuses on the choice of goal and research objectives.

The PhD student **aims** to study the relationship between parents' health knowledge and their children's oral health. Defines **6 tasks** for the implementation of the stated goal: 1) to determine the awareness of the parents about the oral health and the prevention of the oral diseases; 2) to assess the risk of caries development in the 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 health education program for the parents and the oral risk profile of their children.

Two hypotheses are put to the test:

Null Hypothesis: Parents' health knowledge does not affect children's oral health.

Alternative hypothesis: Parents' health knowledge affects children's oral health.

Research methodology

The section "Material and methods" is described in the order of the objectives. The material is a common for the first, third and fourth task - 243 parents and for the

second, third and sixth task -243 children aged 6-10 years. Methods for the individual tasks are described: sociological method (survey of children, interview to determine caries activity, assessment of their diet, visits to a dentist), clinical method - (assess the risk of caries and register dental status, oral hygiene was assessed with a simplified Greene & Vermillion index (OHI-S) and statistical methods. Descriptive analysis is used to describe the data, Spearman-Brown correlation analysis for rank variables and graphical analysis for visual presentation of data with Excel MS Office 2016. $P < 0.05$ is considered as the significance level of the null hypothesis.

Characteristics and evaluation of the dissertation and contributions

The studies were conducted in 2019-2021. The dissertation is based mainly on surveys and clinical research.

The research material is sufficient, and it is collected, processed and presented for defense relatively quickly. The studies were performed on selected according to certain criteria 6-10 year old children - dental patients and their parents.

All materials (information about parents, informed consent, clinical maps, enrollment schemes, etc.) are precisely prepared and included in 9 appendices.

The obtained results are presented sequentially by tasks. The evidence is included in tables, figures and appendices.

As a result, the planned recommendations have been formed, which I consider to be especially useful for dental practice; 12 conclusions are presented, which determine: the level of health literacy of parents and the factors that it affects and correlates positively or negatively; the application of appropriate questions in the motivational interview of parents helps to build an appropriate strategy to increase their health literacy in relation to oral health; the use of appropriate health strategies to influence the health literacy of parents has a positive effect on the oral health of children; the assessment of the parents' health knowledge about oral health is part of the planning and implementation of the individual prevention plan for each child; the use of verbal and visual means in providing useful oral health information increases parents' health literacy.

Six summarized conclusions are drawn on each completed task.

Dr. Nikolay Stanev determines a total of 8 contributions, of which 3 are original, 1 with practical and applied character and 4 with confirmatory character. He makes original contributions: on the assessment of oral health literacy of parents of children aged 6 to 10; analyzes the demographic characteristics of parents and its relationship with the intensity of dental caries in their children; offers the use of motivational interview to motivate parents of children aged 6 to 10 to improve their children's oral health; develops a program to increase health literacy.

The developed topic contains conclusions and recommendations that are applicable in dental practice. They should be promoted among learners, dentists and pediatric dentists to be useful in the treatment and protection of children's dental health.

Evaluation of the publications

A list of scientific events related to the dissertation with the participation of Dr. Nikolay Stanev has been added to the dissertation. Three real publications on the topic of the dissertation are included - two scientific articles in the Bulgarian peer-reviewed journal "Dental medicine "(2019 and 2020) and one in a peer-reviewed international scientific publication " Medinform "(2020) - all are collective. In them Dr. Nikolay Stanev is the first author. There is one scientific participation, in which he is also the first author. The participation is with a poster of the annual assembly of IMAB in Varna. He was awarded the prize of the scientific jury of the congress for the best poster in the competition "Young researcher".

The personal participation of the doctoral student is underlined by the fact that in all reported scientific events he is the first author.

The presented dissertation shows that Dr. Nikolay Stanev has theoretical knowledge, has achieved professional skills in the scientific specialty "Pediatric Dentistry" and can independently conduct research.

Abstract

The abstract reflects the content of the dissertation abbreviated to 59 pages. As accepted, the literature review and bibliography are not included. Own research is presented consistently and accurately. The evidence is presented in 29 tables and 14 diagrams. The conclusions of the 6 tasks are clearly described, and conclusions on them are given. Corresponding to the main dissertation, the doctoral student's contributions and recommendations to dentists and parents are presented. The abstract ends with a list of publications and scientific events connected to the dissertation.

Critical remarks and recommendations (to the conducted research and the presented materials).

The dissertation was submitted to me for the first time and I did not have the opportunity to express my opinion on it. I know the dissertation of Dr. Nikolay Stanev as a diligent, hardworking, intelligent and resourceful young scientist.

I find inaccuracies in the description of some research methods. Caries risk assessment is better described as part of a clinical trial methodology rather than a survey. The data on fluoride prophylaxis, the child's diet, dental status are elements of the risk assessment and do not carry other information here.

The distribution of children with high, medium and low risk as a relative share is not enough for the goals and objectives of the developed work. In order to assess the buffer capacity, the oral hygiene index, the other characteristics of saliva, it is more accurate to calculate the average values of the indicators to be compared.

The methodology of the program is not described in detail in the methods section. The created program is for parents and its effect on children's oral health is being studied. The program should be tested, validated, and it would be most reliable to compare it with a control group to which such a program is not applied, in order to report the results of its effectiveness. In the proposed form, I accept that there is an estimated effectiveness, but it is also a result of additional impacts. Parents' health knowledge is determined by self-assessment and this should be mentioned as determining the level of knowledge or "literacy" as suggested by the dissertation. My remark here is whether and to what extent we can be based on the parents' assessment of the activity of carious lesions and even the new caries in the last 1-2 years?

The results of the studies are presented graphically, but there is no discussion, comparison with other studies, proof / rejection of hypotheses. The work would be enriched by a more in-depth analysis of the results obtained.

I appreciate the positive motivational materials. They would definitely consolidate the accumulated health knowledge and are the most serious practical contribution. I find this strategy very useful and essential for correcting and upgrading children's health habits. The adaptation in Bulgarian and the use of interactive lessons-presentations of the Oral Health Foundation for Buddy, the friend of the children from space, provides useful health information.

The confirmation of the hypothesis that the health literacy of parents on oral health issues improves after training and motivation proves the need for a developed dissertation.

The bibliography could include for completeness and analysis more sources of research from Bulgaria on the prevalence of dental caries and the risk factors that determine it. It is right that the work of colleagues from related departments, recognized in refereed publications, should be evaluated.

Despite the noted findings, considerations and inaccuracies, the overall development is methodically planned, on time and meaningful.

CONCLUSION

Dr. Nikolay Vassilev Stanev has conducted research work and presents a dissertation with thematic relevance, sufficient evidence, **scientific-theoretical, methodological and scientific-applied results** that meet the requirements and criteria of LDASRB,

Regulations for the implementation of ZRASRB and the relevant Regulations of MU - Varna.

I give my positive assessment of the presented dissertation "Influence of parents on children's oral health", the abstract to it, the results and contributions, and I invite the esteemed scientific jury to award the educational and scientific degree "Doctor" of Dr. Nikolay Vassilev Stanev in doctoral program in pediatric dentistry.

20.04.2022



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