

To

The Chairman of the Scientific Jury,
determined by Order No. P-109-30/30.01.2024
of the Rector of Medical University - Varna

Recension

from

Associate Professor Sevda Mihailova Yantcheva, Ph.D

as an external member of the Scientific Jury

of a dissertation on:

"Investigating the role of marginal adaptation of indirect restorations as a placretentive factor and its influence on the level of attachment."

for awarding the scientific and educational degree "Doctor"

in the doctoral program "Therapeutic Dentistry" in professional direction 7.2. Dental medicine from the field of higher education

7. Health care and sports

Author: Dr. Sabina Plamenova Keremedchieva

Form of doctoral study: regular form of study

Department: "Periodontology and Dental Implantology",

FDM, MU,, Prof. Paraskev Stoyanov" - Varna

Academic supervisor: Prof. Dr. Stefan V. Peev,D.S., and

Associate Professor Angela Zdr. Gusiyska, Ph.D.

General presentation of the procedure and the PhD candidate.

The presented set of materials follows the requirements and includes Order No. R 109-37/31.01.2020 - Varna for enrollment as a full-time doctoral student in the Department of Periodontology and Dental Implantology, FDM, MU, Prof. Paraskev Stoyanov" - Varna with scientific supervisors Prof. Dr. Stefan V. Peev, DS, and Assoc. Dr. Angela Zdr. Gusiyska, PhD; PROTOCOL No. 107/18.01.2024 from the faculty council of the department "Periodontology and dental

implantology" from a meeting of the SC with a positive decision on readiness for public protection; Order No. R 109-30/ 30.01.2024 - city of Varna for deduction with right of defence within one year; European CV format with the PhD candidate's signature; copy of diploma for completed higher education with "master" degree in Dental Medicine from FDM, MU-Varna (2018); transcripts of passed exams from a doctoral minimum; list of publications related to the dissertation; bound dissertation and printed abstract.

Doctor Sabina Plamenova Keremedchieva was born in Varna on September 11, 1992. In 2011, she completed secondary education at the First Language High School, Varna, and in 2018, she graduated with a "master's" in Dental Medicine at FDM, MU-Varna. In 2018, she was appointed as a part-time assistant and subsequently as a full-time assistant in the Department of "Periodontology and Dental Implantology" in the discipline "Periodontology and Dental Implants" at FDM, MU - Varna. In 2020, she was a full-time doctoral student at the department. She specializes in "Periodontology and diseases of the oral mucosa" and is fluent in English and Russian.

Actuality of the topic.

The development of technologies and materials for aesthetic indirect restorations has been dynamic in recent years. Many of them are insufficiently studied, and indirect restorations made by digital technologies are of interest. They enable precise reproduction of the marginal contour, which is important for patients' periodontal health. The success of restorations depends largely on their good marginal adaptation. The appearance of a gap in the area of the contour of the obturation leads to microleakage. It is a prerequisite for secondary caries, bacterial plaque retention and the appearance of gingival and periodontal diseases in some patients.

Characteristics and structure of the dissertation work.

The dissertation, "Investigating the role of marginal adaptation of indirect restorations as a placretentive factor and its influence on the level of attachment", is properly structured and richly illustrated with 118 figures, 99 tables, 8 appendices. The total volume of the development is 209 pages, distributed as follows:

1. Introduction – 2 pages.
2. Literature review - 37 pages.
3. Purpose and tasks - 1 page.
4. Material and methods – 31 pages.
5. Results and discussion – 72 pages.
6. Conclusion – 2 pages.
7. Conclusions – 1 page.
8. Contributions – 1 page.
9. Bibliography - 32 pages.

10. Appendices – 21 pages.

Researchers are conducting many laboratory and clinical studies on the advantages and disadvantages of aesthetic restorative materials. Because of their diversity and innovation, indirect techniques and materials are less studied, especially in relation to periodontal health. This defines the topic of the present development as current, interesting, and useful.

The cited literary sources are 283 and are entirely in Latin. The achievements of the Bulgarian scientific community—dissertations and publications, among which there are some in the world databases—are not reflected, which is also reflected in the literature review.

Knowing the problem - a literature review.

The literature review is structured. It addresses dental crown defects and direct composite materials and highlights the problem of polymerization shrinkage. Materials for indirect restorations are briefly presented. Impression methods, preparation techniques for Class 2 deep gingival base cavities, and their relationship to periodontal health are presented in more detail. Glass-ionomer cements and their modifications are presented too cursory. Composite types of cement - list of studies, no thesis. The marginal adaptation and micro-leakage section repeats the same way of looking at the problem-marking studies. The problem of adhesion to dentin, regarding its structure, age-related or protective changes, is not addressed. Shrinkage is not the only problem of the clinical application of direct composites - degradation of the incompletely polymerized composite, ageing and microorganisms are no less significant. The structure and idea of the literature review are appropriate for the topic, but unfortunately, the content is not thorough and convincing.

Purpose and tasks

The purpose of the development is "To find out what influences different methods on the precision of indirect restorations and the clinical level of attachment in the relevant area"—it is unclear what these methods are. There is a need for specification and clarification. Three tasks have been selected, which are not sufficient for a dissertation for awarding the scientific and educational degree "doctor."

Material and methods

It is unclear how many extracted teeth were used in the study for the first and second tasks. What are the parameters in the vestibular-lingual direction of the prepared cavities? What was the shape of the burs and diamond grit size, and how many cavities were they used? What is the composition of the cement used, composites, etc.? What is included in the term resin?

Eight groups, five slices per group? Statistical reliability and reproducibility cannot be expected.

No adhesive protocol was described. Was an adhesive system used or not?

In the third task, five groups are described—one control with direct composite restorations and four with fabricated inlays. Then, there is also comments about the sixth, seventh, and eighth groups. What is this?!

Results and discussion

In these 73 pages, there are 118 figures, 97 tables, and almost no text. But there are no tables with the specific data for the samples, standard deviation, minimum, and maximum. There are tables of average values—how they are obtained—but there is no real evidence.

The discussion of the results covers only six pages, and that's it.

The discussion is the most essential component of scientific paper. Here, we can evaluate the ability of scientists to analyze their results in the context of the world database; the ability to search for regularities and build hypotheses is evident.

The dissertation conclusions are nine of the three tasks set! Conclusions 1 and 2 cannot be conclusions because we select the patients, the appropriate cases, and the type of teeth to realize a specific study. There are doubts about the complete reliability of the other conclusions due to the ambiguities according the formation of the groups and the number of samples included in the laboratory tests. I accept the conclusions related to the clinical trial.

I will not comment on contributions.

The work needs serious corrections to make it look like a thorough scientific work.

The abstract of the dissertation reflects the content of the work.

CONCLUSION

The work "Investigation of the role of the marginal adaptation of indirect restorations as a placretentive factor and its influence on the level of attachment" presented by Dr Sabina Plamenova Keremedchieva does not testify to in-depth scientific knowledge and professional skills in the scientific speciality of Therapeutic Dentistry and needs serious corrections.

I give a negative assessment to the work presented, "Investigating the role of marginal adaptation of indirect restorations as a placretentive factor and its influence on the level of attachment". The work does not meet the scientometric criteria for obtaining the educational and scientific degree "doctor" to Dr Sabina Plamenova Keremedchieva.

I strongly vote "no" regarding acquiring a scientific and educational degree "doctor" in the scientific speciality of Therapeutic dentistry by Dr Sabina Plamenova Keremedchieva.

We should not lower our criteria and devalue scientific development.

28.03. 2024

Sofia

Заличено на основание чл. 5,
§1, б. „В“ от Регламент (ЕС)
2016/679

Sofia/ Assoc. Dr. Sevda M. Yantcheva, PhD/