QUESTIONNAIRE FOR STUDENTS FROM FACULTIES OF DENTAL MEDICINE IN BULGARIA REGARDING THEIR MOTIVATION FOR PARTICIPATION IN AND THE WAY THEY ARE FAMILIAR WITH RESEARCH PROJECTS

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ABSTRACT:

Introduction: In recent years there has been a significant increase in the number and value of projects implemented by medical universities in Bulgaria. The involvement of representatives of the student community in the research teams increases their knowledge and skills and in this way they also gain experience in team work and become motivated to further develop their science careers.

Aim: The purpose of our study is by analyzing data from our questionnaire to examine the level of students’ willingness to participate in research project activities performed by Bulgarian faculties of Dental Medicine.

Material and methods: The written examination technique has been applied as a primary empirical sociological information registration method. For that purpose a 13-question survey (questionnaire) has been prepared. The survey is anonymous and it has been completed by 190 students in their 4th and 5th year of studying in medical universities in Sofia, Plovdiv and Varna. Data was collected during the period from January to May 2013.

Results: In order for us to achieve the goal of this study we focused on the questions from the questionnaire.

Conclusion: The role that research projects play in medical universities and in particular in the faculties of dental medicine in Bulgaria is of key importance for their accreditation. The scientific cooperation between lecturers and students is a prerequisite for developing a competitive environment that defines the future scientific achievements in the relevant research institution.

Key words: dental medicine, research projects, questionnaire, students.

INTRODUCTION

In recent years there has been a significant increase in the number and value of projects implemented by Faculties of Dental Medicine from Medical Universities in Bulgaria.

[6, 7, 8] The involvement of representatives of the student community in the research teams increases their knowledge and skills and in this way they also gain experience in team work and become motivated to further develop their science careers.[2, 9, 10] Participation of dental students in research projects is very important on their undergraduate and postgraduate success. [3, 1] Also the projects are an opportunity to develop their clinical competency [4] and to promote leadership in medical education. [11]
I. Application procedure awareness – Question No 2.

92.1% of the students have given negative answers to the question regarding the awareness of the major steps in applying for competition programs – idea, cost analysis, team formation, submitting documents and implementation stages. The results obtained are completely logical and correspond to their position in the education institution.

II. Research project participation – Question No 3.

95.3% of the students surveyed claim not to have participated in research projects, which is directly correlated to their answers to the question of their awareness of application procedures (i.e. Question No 2). Such answers prove the need of a more detailed information campaign among students aimed at explaining the benefits and ways of participation in research projects - Fig. 1.

IV. Research project implementation – difficulty level – Question No 5.

Students’ answers clearly show that they do not have any illusions about the complexity involved in research project implementation and that they are aware of the high level of work load related to such implementation. Results from the questionnaire participants’ opinions summary show indisputable facts according to which 80.8% consider project implementation procedures as a difficult task and 14.7% – as a very difficult one - Fig. 3.

III. Willingness and motivation to participate in research project activities – Question No 4.

Our data collected from all three faculties of Dental Medicine reveals that only 4.7% of the students have participated in research projects while at the same time 54.2% express their explicit willingness to do so. Availability of enough time for participation in such auxiliary activities ranks second as a precondition for students’ involvement. Only 3.2% find financial stimulus for participation as the most important one - Fig. 2.

V. Research activity unit members – Question No 7.

This question was meant to study opinions regarding research activity unit members with the purpose of establishing such a unit in the relevant faculty or its optimization corresponding to the dynamics of development in the relevant field – Fig. 4.
Result data is as follows: 20% of the students think that such structure should include academic rank lecturers only and 69.3% share the opinion that it should involve academic rank lecturers, lawyers, accountants, etc., which shows clear awareness of the multidisciplinary nature of research project activities. The third considerable group of answers is also interesting – 18.7% of the students give individual answers different from the proposed ones and those participants insist on involving other people such as lecturers not having any academic ranks, consultants, students’ representatives, supporting staff representatives (nurses, sanitary attendants), etc. Students aware that the unit in charge of projects should comprise of a large number of experts express their somewhat intuitive opinion on the involvement of people with different occupations, which could ensure optimization of the activities performed.

VI. Student’s participation in research projects – Question No 8.

In our opinion and in the opinion of most lecturers who filled in the questionnaire the involvement of students as part of the research team is of great significance since it provides opportunities for gaining new knowledge and experience in teamwork. As far as the educational institution is concerned research projects are treated as some kind of a “workshop” for future young research personnel - Fig. 5.

VII. Advantages of research project participation – Question No 9.

Major advantages of such participation according to students are: the possibility to experience work with innovative technologies and special equipment (61.1%) and the joint team work with their lecturers; presenting research results at various forums (33.7%) Fig. 6.

VIII. Disadvantages of students’ participation in research projects - Question No 10.

According to students (69.5%) the main difficulty regarding their participation in research projects is the additional burden that such participation represents. Only 26.8% of them find it difficult to combine project activities with education, obviously estimating that such participation will not be a serious problem if organization is good.

IX. What is FP7? – Question No 11.

The question related to FP7 was aimed at estimating to what extent the students surveyed had knowledge of the various scientific cooperation programs. It turned out that half of them, 51%, give the correct answer that FP7 is an international scientific cooperation program - Fig. 8. We consider that this percentage could be much higher in cases of active information campaigns held by the relevant university specialized unit. [5]
X. Method of obtaining up-to-date information – Question No 13.

Most students prefer to obtain information about research projects both from the Internet and from specialized units at the Faculties of Dental Medicine (FDM) (59.5%) – Fig. 9. This shows Bulgarian dental medicine students’ hunger for more sources of up-to-date scientific information.

CONCLUSION

The role that research projects play in medical universities and in particular in the faculties of dental medicine in Bulgaria is of key importance for their accreditation. Extracurricular activities and other forms of education resulting in earning credits appear as a stepping stone for selecting the best prepared students and their involvement in a particular project research team. This form of scientific cooperation between lecturers and students is a prerequisite for developing a competitive environment that defines the future scientific achievements in the relevant research institution.

Appendix 1

(Questionnaire regarding research activities performed in faculties of Dental Medicine in Bulgaria)

<table>
<thead>
<tr>
<th>Question</th>
<th>Academic rank</th>
<th>Employee/lecturer of no academic rank</th>
<th>Student</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is your status in the Faculty?</td>
<td>Lecturer</td>
<td>Yes</td>
<td>No</td>
<td></td>
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<tr>
<td>2. Are you familiar with the research project application procedure?</td>
<td>Yes</td>
<td>No</td>
<td></td>
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<tr>
<td>3. Have you participated in a research project at your university?</td>
<td>Yes</td>
<td>No</td>
<td></td>
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<tr>
<td>4. Would you like to participate in application for a research project?</td>
<td>Yes</td>
<td>No</td>
<td>Only if I have free time</td>
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<tr>
<td>5. In your opinion a research project implementation is:</td>
<td>Very difficult</td>
<td>Difficult</td>
<td>Easy</td>
<td></td>
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<tr>
<td>6. What is your opinion on establishing a unit at the Faculty of Dental Medicine dedicated especially to implement research projects:</td>
<td>Definitely positive</td>
<td>Positive</td>
<td>Negative</td>
<td>Definitely negative</td>
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</table>


8. http://mu-varna.bg/EN/Research/Pages/ProjectsAndPrograms.aspx


**REFERENCES:**

7. What members could such unit include? □ □ □

8. In your opinion the involvement of students in research projects is: □ □ □

9. In your opinion what are the advantages for research project participants? (please specify one answer only) □

10. What are the disadvantages for research project participants? □ □ □

11. What do you think the Seventh Framework Program is? □ □ □

12. How many research projects do you think are implemented at your Faculty in one year? □ □ □ □

13. How do you prefer to receive information about certain projects? □ □ □ □

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<th>Academic ranks, accountants, lawyers, etc.</th>
<th>Others (please specify):</th>
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<td>8. In your opinion the involvement of students in research projects is:</td>
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