



DO WE KNOW TODAY'S MEDICAL STUDENTS?

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ABSTRACT

PURPOSE: This work has examined medical students' motivation and its relationship to their expectations about the personality of university teachers. **METHODS:** Direct individual inquiry was conducted with 541 medical students to explore their views about medical education. **RESULTS:** Most of the students agreed the occupation of physician is prestigious, modern, with opportunities for professional growth. Motivation to choose that profession showed statistically significant differences by course of education. Accessibility and clarity of teaching, the relevance of curriculum to future professional work, and creating a productive atmosphere are the top three most highly valued teacher characteristics. **CONCLUSIONS:** Today's students have a more rational approach to choosing a profession and primarily value a job's prestige and opportunities for professional growth. With the increase of experience in medical education, the expectations for a better career also increase. Accessibility and clarity of teaching, the relevance of the curriculum to future professional work, and creating a productive atmosphere are the top three most highly valued characteristics.

Key words: quality assessment, evaluation, medical education, teacher characteristics, motivation.

INTRODUCTION

Healthcare reforms in many countries over the past 20 years were too focused on financial and technological aspects. Researchers of modern healthcare systems indicate that despite rising attention to the acute shortage of healthcare workers, solutions to the human resource crisis are difficult to achieve. "Although we are aware of the issues and have developed human resource strategies, the problem is that some old systems of leading and managing human resources for healthcare do not work in today's context." (1, 2).

Human resources are at the core of any healthcare system. They are crucial in the area of achieving healthcare objectives, both national and global. Attention to human resources in healthcare is in the base of the attention to future physicians. The quality of healthcare tomorrow strongly depends on the

professional, moral, and ethical training of medical students today. The logical question is "Do we know the modern medical students, who will become the next generation physicians?" The answer to this question is hampered by the continued neglect of the changes that occurred in the characteristics of medical students in the early 21st century.

Our analysis shows that research interest in the problems of medical students in Bulgaria peaked during the years 1980-1987 (3, 4, 5).

In recent years, surveys designed to assess the quality of medical training were a compulsory part of management in higher medical education in Bulgaria. They are operational in nature, primarily evaluated courses and teachers, but do not recognize the wide range of factors that influence student opinion on medical education. They do not aim to reveal features of the modern medical student.

No specific evidence could be found in publications regarding the relationship between these tests and management decisions. Amid the growing importance of human resources,

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lack of research topic ideas in this area leads us to conclude that the gap must be filled by research, focusing on:

- Expectations about the physician's profession.
- Educational needs of medical students.
- The factors that determine satisfaction with undergraduate medical education.

All these aspects are premises for better management, which is the reason why they were covered in our in-depth study, a part of which is this article.

MATERIALS AND METHODS

The purpose of this work was to explore:

- The reasons why medical students choose this professions and their expectations from it.
- The role of teachers' individuality in students' assessment of the quality of education.
- The change in assessment of the elements of quality training as importance of various components at the various stages of the educational process.

Within the wider study on the elements of medical training quality, a direct individual inquiry was conducted with 541 medical students from October 2010 to November 2011. Students were interviewed after completion of their first and third years, and during their internships at Trakia University, Faculty of Medicine in Stara Zagora and Medical University in Varna. Most of

them (59.5%) were women aged 18 to 38 (Mean = 22.26, 95% CI (22.06; 22.46)).

Individual questionnaires were used to explore medical students' opinions about their training. All students were invited to complete questionnaires; the response rate was 79%. Likert five points scale, from absolutely agree to absolutely disagree, was used for the evaluation of the individual items. The students' assessment of the quality of their education so far was measured using two scales - one with dichotomous evaluation, and one with a quantitative variable with values ranging from 0 to 100, visually presented on a 10 cm line segment. Data processing was done in SPSS, and appropriate statistical methods for evaluating the significance of the proposed criteria were applied.

RESULTS AND DISCUSSION

The average score for the ongoing training (measured on a quantitative scale from 0 to 100) is 55.70, 95% CI (53.79, 57.61). Comparing scores of students in different years using a One Way ANOVA test, there was a statistically significant difference with level of significance $p = 0.0001$. The highest scores were given by second year students (Mean = 62.77, 95% CI (60.29; 65.24)), and the lowest ones – by fourth year students (Mean = 47.38, 95% CI (43.37; 51.39)). For student interns these values were: Mean = 51.75, 95% CI (48.20; 55.31). (**Fig. 1**)

The quantitative score variable had no statistically significant differences by gender. The distribution of the dichotomous rating by year of education is shown on **Fig. 2**.

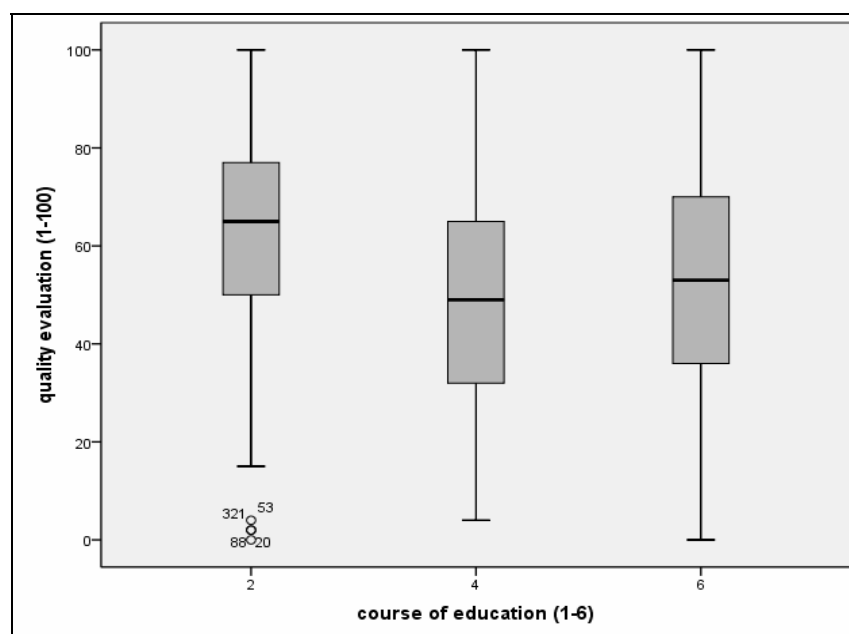


Fig. 1. Quality evaluation by course of education (quantitative).

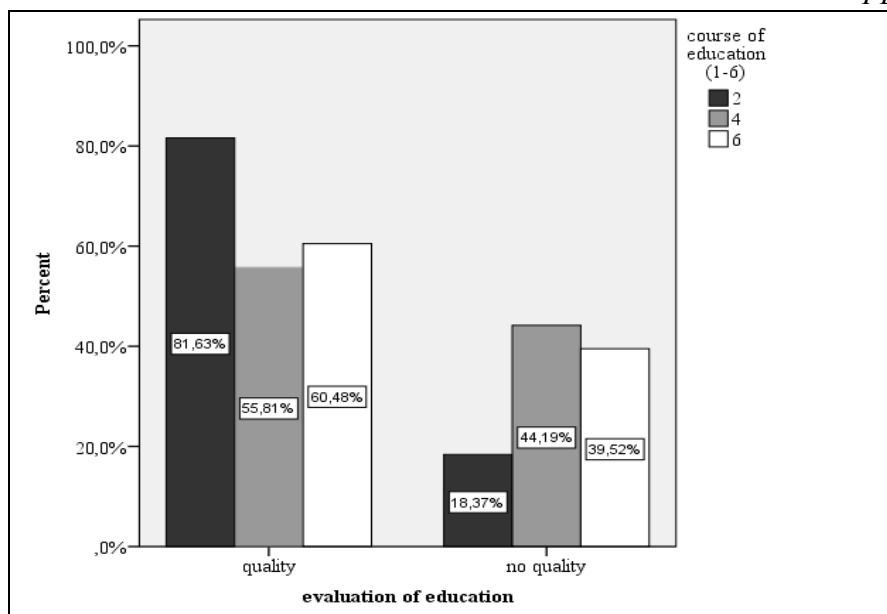


Fig. 2. Quality evaluation by course of education (qualitative).

Regarding the reasons why students choose a medical universities, the highest proportion of them, 84.7%, agreed that "physician is a prestigious occupation", with only 5.9% disagreeing with that statement. The medical profession was defined as modern, with opportunities for professional growth by 80.4% of the students. Only 7.8% of them disagreed that it provides good career opportunities.

Social status was an important factor for two thirds of the students. Financial compensation was essential for less than half of the students (39.9%). This could be attributed to the widespread public opinion that Bulgarian doctors are underpaid.

Family tradition was an important factor for 28.7% of students. In other words, every fourth student comes from a family of medical professionals and continues the family tradition. Therefore, parental values and opinions exert a strong influence on the current generation of physicians.

Personal experience related to medicine is not a significant factor for choosing a career in healthcare, since almost the same number of them agree (34.4%) or disagree (38.3%) that it played a role for them. Other factors for pursuing a career in medicine were personal interest or calling, childhood dreams, a desire to work with people, and perceiving the profession as virtuous and humane (Fig. 3).

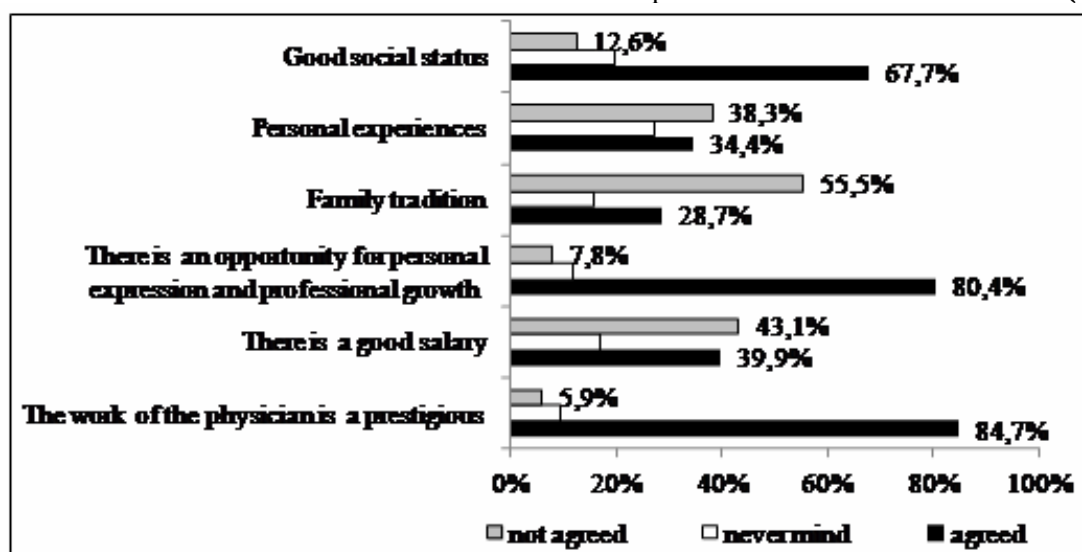


Fig. 3. Motivation to choose a physician's profession.

Comparison with previous studies shows:

- The social importance of the profession was, and still is, a key factor.
- Opportunity for professional growth is a factor of significantly increased importance for students nowadays.
- The importance of emotional factors such as personal experience and pursuing a childhood dream is decreased, more rational factors prevail.
- The importance of financial compensation has increased from 20-22% in 1983 to 40% in 2011.

Second year students are most convinced that the physician's job is prestigious (87.8%) and allows personal and professional growth (86.9%). Occupational prestige was also the top factor for fourth year students (87.6%), and last year students (77.8%).

Motivation to choose a physician's profession showed statistically significant differences by year of education ($p < 0.05$). Second year

students show very strong motivation, while the upper-class students' opinions become more differentiated, i.e. as their experience increases, students' motivation becomes differentiated. Only the prestige factor shows no statistically significant difference between students in different years in university.

Having a strong motivation for choosing the physician's profession correlates well with the student giving higher score to teaching ($p < 0.05$). Students with better motivation tend to appreciate the quality of education at their universities.

Students are very explicit in assessing the lecturer characteristics that determine the quality of training. For interning physicians most of the proposed characteristics are considered significant by all respondents. Fig. 4 shows the ranking of the characteristics according to students' estimates.

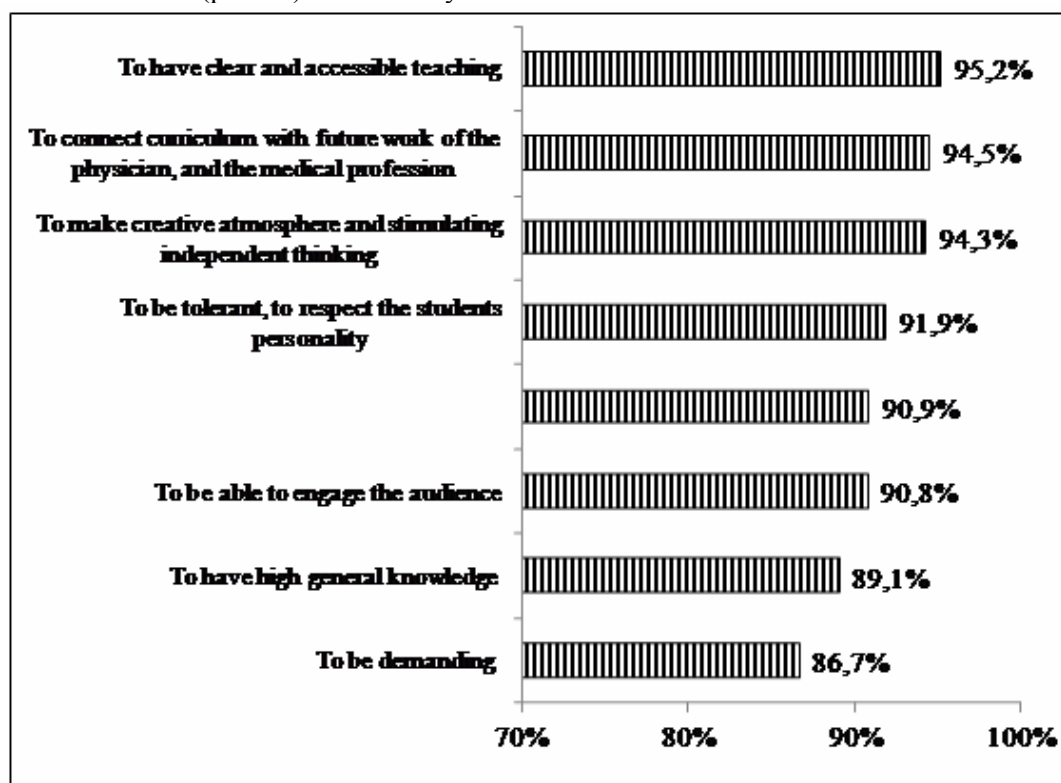


Fig. 4. Lecturer characteristics that determine the quality of training.

Accessibility and clarity of teaching, the relevance of the curriculum to future professional work, and creating a productive atmosphere are compelling requirements to the teachers and are the top three most highly

valued characteristics (selected by over 95% of the students).

Next in importance are tolerance and personal respect towards students, knowledge of the

contemporary methods of teaching and presentation, ability of the teacher to speak to the audience, his/her high general knowledge and exigency. All these qualities are highly appreciated by over 86% of the surveyed students.

CONCLUSIONS

Students are primary and most logical assessors of the quality and effectiveness of training. Students' ratings encourage the communication between teachers and students and could be useful to other students.

1. Strong motivation for choosing a physician's profession is associated with higher ratings of medical training.
2. Today's students have a more rational approach to choosing a profession and are influenced the most by its prestige and opportunities for professional growth.
3. With increased experience in medical training, the students' expectations for a better career also increase. This suggests that a serious expert assessment of the curricula content and opportunities for individual work with students be made, both on practical problems, and through involving students in research.
4. Accessibility and clarity of teaching, the relevance of curriculum to future

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professional work and a productive atmosphere are the top three most highly valued characteristics.

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