

CORRESPONDENCE

The Career Expectations of Medical Students: Findings of a Nationwide Survey in Germany

by Dr. med. Bernhard Gibis, Dr. phil. Andreas Heinz, Prof. Dr. pol. Rüdiger Jacob, Dr. med. Carl-Heinz Müller in volume 18/2012

Sex Ratio during Medical Studies and Specialty Training

Gibis et al. conducted a comprehensive survey of the career expectations of medical students, which provided outstanding insights into the possible future professional world of doctors in Germany (1). The preferences expressed by women and men regarding future medical specialty training differ notably for some specialties. However, only when also considering the sex ratio in the population itself allows being able to analyze the effects of specialty training preferences of both sexes on the individual medical specialties. Using this approach it becomes obvious that, owing to the fact that about two-thirds (64% in the survey) of medical students are female, a high proportion of women is to be expected for some specialties, such as gynecology (over 90%) and dermatology and pediatrics (both about 75%). This entails the potential of particular challenges for these specialties (2–4). With an estimated future proportion of women of about 50%, the traditional “male domains”, i.e., urology, orthopedics, and radiology, are likely to become the specialties with the most evenly balanced sex ratio.

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Similar Results

We have read the original article by Gibis et al. with interest. For the subject areas “compatibility of work and family life” and “career aspirations,” this nationwide

survey showed similar results to a survey conducted by our working group from the Baden-Württemberg General Practice Competence Center (1–3). This survey was conducted among medical students in the state of Baden-Württemberg (n=12 062, response rate 11%) with a validated questionnaire (1). In contrast to the study reported by Gibis et al, this questionnaire provides only a single-choice answer to the question of which specialty the respondent wants to embark on. The six most popular specialties were internal medicine (11.7%), gynecology (9.8%), pediatrics (9.6%), surgery (8.9%), anesthesiology (7.8%), and general practice (6.8%).

A comparison of the surveys shows a clear overlap of the top positions, with our data showing notably more students with an interest in gynecology and fewer for general practice. On the other hand, the comparison with the results of our study also entails a possibility of misinterpretation of the study data reported by Gibis et al., which results from the study method (multiple responses allowed for the specialty of choice). Altogether, as the presented data suggest, we can certainly expect far fewer interested students for the different specialties. The proportions for the specialty of choice in our data were all below 11%—not enough to meet demand in the main specialties.

All specialties should work in equal measures to present their discipline as attractive at the universities and to entice future generations of doctors into posts accordingly. Especially for general practice this is a competition with a handicap if one remembers that to date, only half of all medical faculties in Germany actually hold a chair for general practice.

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Nihilism is Inappropriate

The nationwide survey should raise alarm bells for medical faculties: 55% do not think that the available time to treat patients is appropriate, and 53% have experienced rigid hierarchies. In spite of the low participation rate (16%), it can be assumed that the result is representative for future providers of medical services.

A pilot study with 33 closed questions at the medical faculty of the University of Ulm, which included 821 medical/clinical students (with only 10% non-compliant) confirms the results of the nationwide survey.

Only 26% experienced their study course as mainly positive, and 25% did not see any relevance of the learnt subjects for their later professional career. Only 10% experienced the teaching of medical topics as useful for a positive attitude to their course. But only 20% expressed dissatisfaction with their lecturers. 71% of students experienced their everyday lives as stressful because of organizational issues.

All this affects medical students' perspectives regarding their later careers. A stressful discrepancy between students' own ideas and the reality of a doctor's job, as experienced in internships and seminars, was reported by 57%. Only 30% thought they were given the relevant competences for their later career. 53% of students reported experiencing feelings of helplessness and insecurity in regard to their course of studies. The answers to the other questions followed a similar trend. This is a call for action as dissatisfied and insecure doctors can hardly expect satisfied and confident patients after treatment.

Nihilism in university teaching is inappropriate. In a Swedish experiment, difficult groups of school students were assigned to the best teachers, and these students achieved the best grades nationwide at the end of their year.

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Survey Is Subject to Bias

In the section on limitations of their study I would have considered it beneficial if Giblis et al. had also addressed the fact that the selected population developed their expectations based on a limited professional experience only. The results of this study certainly intend to and definitely should take influence on future medical career pathways. However, they should then be matched with results of a similar survey among doctors in the middle and at the end of their professional lives.

Another bias comes with the fact that the survey is tied to the current layout of medical education and practice. It therefore reflects the conditions of curative (repair) medicine. Hence future aspects of a paradigm shift towards health maintenance, for instance; that might decisively shape our profession, are being underrated.

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In Reply:

After decades of the so-called “deluge” of doctors, topics such as career expectations of medical students, but also the job satisfaction of doctors with their medical careers during and after specialty training in Germany have thus far been observed and researched to an unsatisfactory degree. One example of an instrument used for regular surveys is Canada's www.nationalphysiciansurvey.ca. As Dr Seidenstücker writes, research is needed into medical training with a longitudinal perspective, by means of large, inter-institutional cohort studies, and for more targeted considerations of the topic of differential assessments and expectations of men and women, which Dr Dewey points out in his letter. Methodological aspects, such as were mentioned by the Heidelberg group of authors, should be explored by means of continuing (health services) research activities. Focusing on merely one preference for specialty training suggests precision, but is actually an artifact since during the course of studies, aspirations in terms of further training are subject to significant change and take concrete shape only over time. This is exactly what our data showed, that the number of options for specialty training decreases over the study course. We think that the question raised by Wenderlein is more important—namely, that of the further development of undergraduate and postgraduate medical training. A closer orientation of medical training on the basis society's need for medical services seems overdue.

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Conflict of interest statement

The authors of all contributions declare that no conflict of interest exists