University of Groningen

Medical students' responses to their first clinical experiences

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Published in:
Medical Teacher

DOI:
[10.3109/0142159X.2012.669091](https://doi.org/10.3109/0142159X.2012.669091)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2012

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Helmich, E., Bolhuis, S., Laan, R., Prins, J., & Koopmans, R. (2012). Medical students' responses to their first clinical experiences. *Medical Teacher*, 34(5), 424-425. <https://doi.org/10.3109/0142159X.2012.669091>

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To cite this article: Esther Helmich, Sanneke Bolhuis, Roland Laan, Judith Prins & Raymond Koopmans (2012) Medical students' responses to their first clinical experiences, Medical Teacher, 34:5, 424-425, DOI: [10.3109/0142159X.2012.669091](https://doi.org/10.3109/0142159X.2012.669091)

To link to this article: <https://doi.org/10.3109/0142159X.2012.669091>

Published online: 27 Mar 2012.

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marginal percentage of applicants for our training program (3% of all second-year students), it stands out that the overall interest in research-related course offerings is quite low among undergraduate medical students. As university teachers involved in faculty development, one should be aware of this condition and think about actions to raise medical students' interest in scientific work early in their academic studies.

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An assessment of stress in Irish interns

Dear Sir

High levels of stress have been identified as an issue for doctors. Research shows that stressed doctors do not produce quality patient care and are more likely to make errors when treating patients. A particularly stressful part of medical training is the intern year, the first postgraduate year.

Data on the levels of stress were collected using the General Health Questionnaire (GHQ)-12 from interns at the beginning and end of their intern year (described as inexperienced and experienced interns, respectively). In addition, the experienced interns were asked to rate nine sources of stress using a four-point scale from 'not a source of stress' to a 'major source of stress'. The sources were based upon the three categories of stress: situational, personal, and professional.

Responses were obtained from 56 interns commencing internship, and 34 interns at the end of internship. A total of 33.3% of the interns met the threshold for experiencing pathological levels of stress. A significant interaction was found between experience and gender ($F(1,86) = 5.26$, $p < 0.05$). Experienced female interns reporting significantly lower levels of stress (5.6% reported pathological levels of stress) than inexperienced female interns (36.3% reported pathological levels of stress), experienced male interns

(50.0% reported pathological levels of stress) and inexperienced male interns (39.1% reported pathological levels of stress). Experienced female interns also reported situational ($t(35)=2.13$; $p < 0.05$) and personal ($t(26.7)=2.90$, $p < 0.05$) stressors to be significantly lower sources of stress than experienced male interns.

The levels of stress reported by the inexperienced interns were typical of that of other studies that have utilised the GHQ to measure stress in healthcare workers. However, the responses of the experienced interns were atypical of those reported in the literature. Consistent with the gender difference found in the GHQ scores, experienced male interns rated situational and personal stressors to be significantly higher source of stress than experienced female interns. Also, experienced male interns reported significantly more problems with managing work-life balance than experienced female interns. These findings indicate a need for a multi-centre prospective study of levels of stress in Irish interns and screening to identify stressors which may impact the ability to deliver optimal patient care.

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Medical students' responses to their first clinical experiences

Dear Sir

Medical students' first clinical experiences evoke a broad variety of positive and negative emotions (Helmich et al. 2011). Little is known about students' responses to these emotional experiences. To clarify this emotional learning process, we carried out a survey in all first-year medical students ($N=332$) directed at their responses to emotional experiences during their first clinical placements.

Most students (53%), especially women (OR 2.4; 95% CI 1.4–4.1), talked with others about their experiences. Other responses included feeling content (35%), enjoying the situation (20%), and seeking connection with others in the workplace (17%). These positive feelings were less likely to be mentioned in hospitals than in nursing homes (OR 0.5; 95% CI 0.3–0.9). This leads to some important considerations.

First, the current medical education literature emphasizes difficult situations and needs and strategies to cope with these. Our study suggests the salience of other reaction patterns, such

as explicitly enjoying the situation, seeking connection with others and feeling content. From the “broaden-and-build” theory (Fredrickson 2001), we know that positive feelings, such as joy, love and contentment, are important for the development of personal resources and relationship-building skills, and therefore should be fostered.

Second, our study revealed an important gender difference. Female students more often talked about their experiences than men did. Although most medical students are female (68%), we do have a substantial number of male students as well. Our findings pose the question if the needs of our male students are adequately met in an ongoing feminization of the curriculum and the medical workplace.

In conclusion, this study reveals many positive responses to emotional clinical experiences. Important implications for medical education are that (a) we should help students recognize and use these positive experiences, (b) the nursing home seems to be particularly suited as a learning environment for medical students, fostering contentment and team spirit, and (c) educators should be aware of gender differences.

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Evaluation drives curriculum

Dear Sir

It is almost a mantra in education that evaluation drives curriculum. Students focus not on topics that they are told are important but on those that are formally evaluated. A recent change in the evaluation methods in our internal medicine clerkship demonstrated the truth of this relationship.

In our medicine clerkship, students’ final evaluations were made up of the weighted average of clinical assessments, small group preceptors’ evaluations, and the score on the USMLE subject exam. Although our grading system was fair and reliably differentiated the strongest from the weakest students, it did not adequately assess the primary objective of our clerkship, the acquisition of clinical reasoning skills.

Not surprisingly, because clinical reasoning skills were underrepresented in our assessment, students did not focus on the acquisition of this skill (Newble & Jaeger 1983). In an effort to turn our students’ attention to clinical reasoning, we designed an oral exam to evaluate reasoning skills. The

students were told the 20 topics on which they could, potentially, be tested on the first day of the rotation and we recommended problem-based resources that would be effective preparation.

To quantify the effect of the intervention, we surveyed the students. We asked, “What were the three most valuable resources you used during the clerkship?” We divided the answers into resources that were primarily board reviews (such as MKSAPS for Medical Students), disease-oriented texts (such as Harrison’s Principles of Internal Medicine and UpToDate), and problem-based books, those that are most focused on teaching clinical reasoning (such as Symptom to Diagnosis: An Evidence Based Guide and Case Files: Internal Medicine).

We compared survey data from year one, before instituting the oral examination, and year two, after instituting the exam. Use of board review books was listed 112 times in year one, falling to 58 times in two. Problem-based books, those aimed at teaching clinical reasoning, were listed 48 times in year one compared to 80 times in year two. Use of disease-oriented resources was unchanged, being listed 83 times in year one and 78 times in year two.

While the ability of our oral examination to actually test students’ clinical reasoning is difficult to demonstrate, it is clear that the addition of the oral examination altered students study habits. A well-designed assessment tool can be used to influence students’ studying in a way desired by course directors.

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Will next year’s rise in UK tuition fees change the demographic of future medical and dental students?

Dear Sir

When a student is deciding whether to enter higher education, especially onto slightly longer courses such as medicine and dentistry, they must take into account the costs and long-term debt that they will incur. The worry of debt will be much more pronounced in students entering higher education from 2012 onwards with the introduction of the much publicised tuition fee increase which could see students paying up to £9000 a year.