The Stability of Factors Influencing the Choice of Medical Specialty Among Medical Students and Postgraduate Radiology Trainees

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Abstract

Objective: To investigate whether general psychological motivating factors that guide career selection of a medical specialty differ over the course of medical school and to compare differences in motivating factors among students choosing "controllable" lifestyle specialties, students choosing "uncontrollable" lifestyle specialties, and a cohort of radiology residents.

Materials and Methods: An anonymous survey was distributed to first- through fourth-year medical students and radiology residents at a single institution. Participants were asked to select their top three of seven factors that most influenced their choice of medical specialty. Fourth-year students were asked to designate the specialty to which they had applied.

Results: The survey was distributed to 259 students and 47 radiology residents with a response rate of 93.8% (243 of 259) and 95.7% (45 of 47), respectively. The top three factors indicated by medical students were finding the daily work fulfilling, work–life balance, and interest in the subject. These top three factors were common to all medical student classes and did not differ between students choosing "controllable" versus "uncontrollable" fields. The factors uncommonly selected were similar personality to others in the field, attending income, competitiveness or prestige, and job market conditions. For radiology residents, the top three motivating factors were the same as for medical students.

Conclusion: Three out of seven motivating factors were universally important to trainees, regardless of their stage of medical training or their selection of a controllable versus uncontrollable lifestyle specialty. These data suggest the variety of career choices made by students may not derive from differing underlying values.

Key Words: Specialty selection, motivations, controllable lifestyle, radiology, advising

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INTRODUCTION

Medical student interest in radiology has been highly variable in the last 5 years [1]. Historical fluctuations in the number and competitiveness of radiology applicants have been observed to correspond to the job market [2-4]. However, previous studies assessing medical students' motivating factors in selecting or deciding against radiology have thus far failed to indicate extrinsic motivations, such as the job market, as a significant consideration [5].

Individuals choose different careers for a variety of reasons. The motivating factors that contribute to selecting a medical specialty have been assessed in previous studies [5-9] and include many influences and preferences that are specific to the practice of medicine: medical school curricula, mentors, interest group participation, desire for patient contact, desire for intellectual challenge, acuity of the work, the patient population, proportion of procedures, and so on. However, broader categories of professional motivation, which have been well described outside the medical literature, have not typically been the main focus of surveys assessing selection of medical specialties.

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In the psychology literature, there are four categories of professional motivating factors: (1) prosocial, (2) external, (3) intrinsic, and (4) loafing [10-15], as described below:

- Prosocial motivation, or "helping" motivation, is finding fulfillment in helping people, serving the community, and contributing to society at large [12].
- External motivation is the desire for external measures of success, which includes both "extrinsic motivations" (external rewards such as money or financial security [13]) and "achievement motivations" (success relative to a peer group [12]).
- Intrinsic motivation, or "interest" motivation, is inherent interest and enjoyment of the activity [12,13].
- Loafing is "a strategy to engage in activities to provide the easiest route to one's goals" [12].

Motivating factors that guide specialty selection among students likely evolve over the course of medical school. Certainly, students' goals change over time as they are exposed to new fields and a broader range of practice environments, but general categories of psychological motivation may change as well. Although students often enter medical school with very altruistic aspirations ("prosocial" motivation), previous studies have suggested that high rates of student burnout [16,17] and a concomitant loss of idealism [18,19] occur over the course of medical training. As such, graduating students may be more likely to be motivated by student debt, job security, and schedule control in their specialty choice compared with matriculating students [19,20] ("external" and "loafing" motivations). Students now report a general preference for "controllable lifestyle specialties" [7,8], which is defined by previous authors as those that allow some control over the total number of weekly work hours. Furthermore, those with higher levels of burnout have been shown to be more likely to select specialties with better lifestyles and higher income potential [16].

Understanding how student motivations differ during different stages of medical training has implications for advising and recruitment, both broadly and for the field of radiology. Therefore, we designed this study to assess what motivating factors students identify as important across different years of medical school and whether these factors differ between groups ultimately choosing controllable versus noncontrollable lifestyle specialties. Furthermore, we sought to determine whether there was a difference in motivations between the medical student groups and a cohort of recently matched radiology residents. We hypothesized that there would be some differences in motivating factors between matriculating and graduating students. Specifically, we thought that extrinsic motivating factors including the current job market and work–life balance would become more important to graduating compared with matriculating students. In comparing these results with a group of radiology residents, we anticipated that the residents would also report extrinsic rewards and work–life balance as motivating factors in career selection.

MATERIALS AND METHODS

Study design and surveys were reviewed by the Institutional Review Board and were granted exempt status.

Study Population

A four-question survey was distributed to first- through fourth-year medical students (MS1-MS4) and postgraduate year (PGY)-2 through PGY-5 radiology residents at a single institution over a 7-month period. Surveys were distributed in four large-lecture settings for medical students, each comprised of a single medical school class, and one large-group session for radiology residents. Participation was optional, nonincentivized, and anonymous. Incomplete survey results were included if at least one response was completed.

Survey Design

The surveys were developed in collaboration with all coauthors, including two faculty educators with multiple years of experience in educational research, question writing, and survey design. The questions were piloted on a group of medical students and residents, the data analyzed, and the questions subsequently revised to improve reliability.

Survey questions assessed participant age with five response categories: 20 to 24, 25 to 29, 30 to 34, 35 to 40, and >40. Participants were asked the number of dependents for whom they were currently providing financial support-including children and spouse-with five response categories: 0, 1, 2, 3, \geq 4. The survey also included a qualitative assessment of the participant's anticipated total debt level at the time of graduation on a 5point scale: no debt, low debt, moderate debt, high debt, and very high level of debt that could hinder financial security. Finally, the survey requested that participants select their top three of seven potential factors that most influenced their choice or anticipated choice of medical specialty. These seven factors included the following: three different extrinsic or achievement-motivating factors (prestige, income as an attending, and job market conditions); one prosocial motivating category (finding the daily Download English Version:

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