

An Evaluation of Career Paths Among 30 Years of General Internal Medicine/Primary Care Internal Medicine Residency Graduates

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ABSTRACT

BACKGROUND: Interest in primary care careers has been dwindling among medical trainees over the past decade, with poor quality of life among the perceived disadvantages. We sought to evaluate factors influencing career satisfaction among graduates of Brown's General Internal Medicine (GIM)/Primary Care residency program and assess its contribution to the primary care work force.

METHODS: Using an anonymous online survey, we queried GIM alumni from 1981–2012 to obtain information about demographics, job characteristics and career satisfaction measures.

RESULTS: Fifty-nine percent of Brown's GIM/Primary Care residency graduates practice primary care, a rate higher than most primary care track programs. Seventy-six percent of respondents were "satisfied" or "very satisfied" with their current jobs. Career satisfaction correlated with self-rating of physical and emotional health and did not correlate with age, gender, income, debt burden, or practice setting.

CONCLUSION: Among the diverse factors associated with attaining career satisfaction, attention to personal health plays a central role.

KEYWORDS: primary care, career satisfaction, physician health, physician self-care

INTRODUCTION

The shortage of primary care physicians in the United States has been well publicized, particularly in light of the recent implementation of the Affordable Care Act, which is expected to extend insurance coverage to roughly 34 million uninsured Americans. Population growth and the aging of the populace will also add to the need for providers. Some estimate that an additional 52,000 primary care physicians will be needed by 2025 to meet the growing demand.¹ Unfortunately, interest in primary care careers has been declining over the past decade, not only among medical students, but internal medicine residents as well. By one estimate in 2007, only 2% of fourth-year medical students indicated plans to pursue general internal medicine.² Another recent study revealed that only 20-25% of all internal medicine residency

graduates were opting for careers as primary care doctors; others have estimated this rate as low as 10-20%.^{3,10}

Historically, the medical profession has been legendary for grueling work hours. However, there has been increasing interest in physician well-being, quality of life, and prevention of physician burnout. Recent phenomena, such as ACGME work-hour limits, patient census caps for house staff and the rise of the hospitalist movement are manifestations

Table 1. Alumni characteristics

Gender	Female: 94 (71.8%) Male: 37 (28.2%)	
Age	43.6 years (mean)	
Ethnicity	Caucasian: 100 (78.12%) Asian/Pacific Islander: 22 (17.2%) African/Black: 3 (2.34%) Hispanic/Latino: 3 (2.34%)	
Career Type	Pure outpatient primary care: 47 (37.0%) Mix of inpatient/outpatient: 28 (22.05%) Pure hospitalist: 18 (14.17%) Subspecialty practice: 16 (12.60%) Primarily research: 7 (5.51%) SNF, rehab or hospice: 6 (4.72%) Other: 5 (3.94%)	
Mean Annual Income	\$188,595	
Debt (post-residency)	\$83,767	
Hours worked per week	47.3 hrs	
Hours of sleep per night	6.98 hrs	
Number of jobs prior to current	1.4	
Relationship Status	Married/domestic partnership: 122 (90%) Divorced: 4 (3%) Separated: 2 (1%) Widowed: 0 (0%) Never married: 7 (5%)	
Number of children	Mean: 1.57 Range: 0-4	
How would you rate your overall physical health?	1 (Poor) 2 3 4 5 (Excellent)	0 (0%) 2 (1%) 9 (7%) 57 (42%) 67 (50%)
How would you rate your overall mental/emotional/spiritual health?	1 (Poor) 2 3 4 5 (Excellent)	0 (0%) 2 (1%) 25 (19%) 63 (47%) 45 (33%)

of this trend. In fact, since 2001, the Joint Commission on Accreditation of Healthcare Organizations has mandated that all hospitals have a process to address physician well-being.

Career satisfaction among physicians has important implications; for example, previous research has demonstrated a positive correlation between a provider's career satisfaction and patient satisfaction.⁴ With respect to the primary care provider shortage, the image of the overworked, dissatisfied primary care physician (whether real or imagined) may be dissuading trainees from entering the field.⁵ In a 2009 position statement, The Alliance of Academic Internal Medicine recommended "increasing job satisfaction for current and future primary care practitioners" as an important strategy for addressing the workforce shortage.⁶ Career dissatisfaction has also been linked to physician attrition rates,^{7,8} which also impacts the strength of the primary care workforce through early retirements or alteration in career paths.

The Brown University/Warren Alpert School of Medicine's General Internal Medicine (GIM)/Primary Care residency track was established in 1979 and is one of the oldest of such programs in the nation.⁹ The concept of a primary care "track" within an internal medicine training program gained foothold during the 1970s as a way of generating interest in primary care and addressing an anticipated need for primary care physicians, akin to the needs of our current generation. In addition to providing a more intensive exposure to outpatient clinical medicine, Brown's GIM/Primary Care Track employs an innovative ambulatory seminar curriculum led by experts in the social and behavioral sciences in addition to other special topics in outpatient practice. Since its inception, over 320 physicians have graduated from this track.

In October of 2012, we held the inaugural GIM Reunion and Conference, inviting graduates from the past 30 years to attend. Given the renewed interest in the status of the primary care workforce, we sought to evaluate our residency program's contribution to the field, as well as the level of professional satisfaction among graduates.

METHODS

Design

We conducted a survey of GIM graduates for the occasion of the inaugural GIM Reunion and Conference, which took place in October of 2012. Graduates of the GIM/Primary Care Track from 1981–2012 were contacted via e-mail in the fall of 2012. The survey was conducted anonymously via an online program.

Participants

Criteria for inclusion in the survey were successful completion of the GIM/Primary Care residency program and an active e-mail address. Attendance at the conference was not required to participate in the survey.

Instrument

Our questionnaire consisted of 43 items divided into four main sections: 1) physician demographic data, 2) career data, 3) career satisfaction and 4) free text responses. With regards to our career satisfaction, participants were asked to rate their satisfaction with their current job on a 5-point Likert scale. We also asked alumni whether they would choose to become a physician again if given the choice to start over.

Data Analysis

Using STATA software, control variables were correlated with job satisfaction ratings using a Spearman's rank correlation test.

RESULTS

127 out of 227 GIM alumni contacted responded to the survey (56% response rate). Thirty-seven percent (47 respondents) were practicing purely primary care, while 22% (28 respondents) had careers that consisted of both inpatient and outpatient medicine. In total, 59% of GIM graduates are providing primary care services in their current careers. Other significant career paths among GIM alumni included hospitalists (14%), researchers (5.5%) and skilled nursing facility, rehab or hospice physicians (5%). Thirteen percent of responders opted for further fellowship training, in accredited subspecialty fields (**Table 2**), as well as non-ACGME

Table 2. Alumni career characteristics

Practice setting	Patient centered medical home	20 (15%)
	Solo/small group practice	12 (9%)
	Large group practice	17 (13%)
	Veterans Affairs	7 (5%)
	Academic medical center	49 (36%)
	Community health center	4 (3%)
	Staff model HMO	3 (2%)
	Other	23 (17%)
Subspecialty Careers	Did not pursue a fellowship	89 (66%)
	Allergy/Immunology	1 (1%)
	Cardiology	1 (1%)
	Critical Care Medicine	2 (1%)
	Endocrinology	2 (1%)
	Gastroenterology	1 (1%)
	Geriatric Medicine	6 (4%)
	Hematology/Oncology	0 (0%)
	Hospice and Palliative Care	4 (3%)
	Infectious Diseases	2 (1%)
	Nephrology	0 (0%)
	Pulmonary Diseases	2 (1%)
	Rheumatology	1 (1%)
	Other	30 (22%)

Table 3. Career satisfaction

How satisfied are you with your current job?	
1 (Very dissatisfied)	1 (0.76%)
2	6 (4.58%)
3	24 (17.56%)
4	54 (41.22%)
5 (Very satisfied)	46 (35.11%)
Would you still become a physician if you could start over?	
Yes: 117 (92.13%)	No: 10 (7.87%)

accredited areas such as adolescent medicine and obstetric medicine. Two alumni are currently practicing emergency medicine, while a small number of alumni are pursuing non-clinical health related careers, such as public health and occupational health.

Career satisfaction among those surveyed was high; 76% of respondents indicated that they were “satisfied” or “very satisfied” with their current jobs. Additionally, 92% of respondents would choose medicine again as a career if they could start over (Table 3). Graduates most frequently cited quality of interaction with patients (75%), feelings of making a difference (70%) and intellectual stimulation (63%) as the most satisfying aspects of their careers (Table 5). Interaction with insurance companies (49%), administrative work (41%), work hours (30%), and litigation environment (27%) were most frequently selected as contributing to job dissatisfaction (Table 6).

Using a Spearman’s rank correlation test, we analyzed the responses to identify variables associated with high career satisfaction ratings. Within our survey, there was a statistically significant correlation between perceived physical health and job satisfaction ($p=0.0004$), as well as emotional health and job satisfaction ($p = 0.0000$). We did not find a statistically significant relationship between job satisfaction and year of residency graduation, debt burden, income, scope of practice, work hours, gender, marital status or amount of sleep (Table 4).

DISCUSSION

With the recent implementation of health care reform, we stand at a crossroads similar to that of the 1970s which gave rise to the notion of specialized primary care training within internal medicine residency programs. While it is estimated that 91% of family medicine residency graduates will practice primary care, only 10-20% of internal medicine graduates choose this path.^{3,10} Therefore, increasing the yield of primary care physicians from within internal medicine residency programs is worthy of attention.

This survey provided an opportunity to evaluate the rate at which Brown’s GIM/Primary Care track graduates are pursuing primary care careers. West et al. recently attempted to quantify this rate on a national scale by culling data from

Table 4. Correlates of job satisfaction

Variable	Spearman Correlation Coefficient	p-value
Age	-0.0020	0.9818
Residency class	-0.0304	0.7326
Physical Health	0.3052	0.0004
Emotional Health	0.3973	0.0000
Income	0.1296	0.1676
Number of jobs	-0.0587	0.5071
Debt burden	0.0108	0.9068
Work week hrs	-0.0641	0.4743
Hrs of sleep	0.0795	0.3688
Number of children	0.0859	0.3294

Table 5. Which of the following items contribute most to your job satisfaction? (please select up to 4)

Quality of interaction with patients	101 (75%)
Feeling like you are making a difference	95 (70%)
Intellectual stimulation	85 (63%)
Work hours	63 (47%)
Opportunities to teach	63 (47%)
Call schedule	34 (25%)
Income	25 (19%)
Job security	22 (16%)
Other	11 (8%)
Electronic health record/information services	10 (7%)
Administrative work	8 (6%)
Arranging non-medical resources (social services)	4 (3%)
Litigation environment	2 (1%)
Interaction with insurance companies	0 (0%)

Table 6. Which of the following items contribute most to your job dissatisfaction? (please select up to 4)

Interaction with insurance companies	66 (49%)
Administrative work	55 (41%)
Work hours	40 (30%)
Litigation environment	36 (27%)
Arranging non-medical resources (social services)	31 (23%)
Other	25 (19%)
Income	24 (18%)
Call schedule	10 (7%)
Intellectual stimulation	9 (7%)
Quality of Interaction with patient	9 (7%)
Feeling like you are making a difference	7 (5%)
Job security	5 (4%)
Opportunities to teach	2 (1%)

the annual Internal Medicine In-Training Examination from 2009-2011. They found that 39.6% of primary care track residents reported general internal medicine as their ultimate career plan.³ In contrast, the Brown GIM/Primary Care track's yield of 59% primary care practitioners compares much more favorably.

Besides producing substantial numbers of primary care physicians, Brown's program graduates also endorse high rates of career satisfaction. How is Brown achieving such high levels of satisfaction across generations of graduates, and does this high level of career satisfaction account for the increased rate of physicians opting for primary care careers?

The two factors that correlated positively with satisfaction scores among Brown alumni were physical and emotional health self-ratings. While job satisfaction is often examined in terms of factors extrinsic to the physician, e.g., interactions with patients, income level, or practice setting, the results of our survey highlight the power of personal perspective and values in perceiving one's overall career as fulfilling. This theme was eloquently captured by several survey responses. One graduate poignantly wrote, "I have a favorite poem that reads: 'With all its sham, drudgery, and broken dreams, it is still a beautiful world.' With all of the hassles of insurance companies, electronic medical records, etc., it is still a privilege to be a physician." In almost perfect complement, another physician wrote: "I had one day in July of 2005 when I received 3 pieces of mail: a legal summons (for a case that was later dismissed on my behalf), an appreciative letter from the daughter of a recently deceased patient and a get well card from a patient...this day symbolized up the highs and lows of what we do."

The lack of correlation between financial factors (income and debt burden) and career satisfaction ratings among our cohort is interesting, and opposes previous published research. A recent investigation by Deshpande and DeMello found that career satisfaction in internal medicine, family medicine and pediatrics was significantly impacted by income.¹³ In another large physician survey, Landon et al. also concluded that changes in income correlated with changes in satisfaction ratings over time.⁸ This may support the idea that career perspective and values can potentially override factors that are typically tied to satisfaction.

As to how graduates of Brown's residency program are achieving such high levels of career satisfaction, some part may be self-selection. However, a common thread in Brown's GIM/primary care ambulatory block months throughout its existence has been the incorporation of wellness, professional development and self-reflection in all three years of training. Seminars provide numerous opportunities to discuss challenging medical situations, difficult workplace encounters, success stories, and career/life goals. In addition, GIM house staff have had close relationships with faculty who serve as role models who share these values and participate in professional development sessions.

Surveys of medical students have indicated that

reservations about quality of life is a significant barrier to pursuing a career in primary care, alongside factors such as income and practice environment.¹⁰ Previous research has also suggested lower rates of career satisfaction among internists as compared to doctors in other specialties.¹¹⁻¹³ With this in mind, it is interesting that participants in our survey, who expressed high rates of career satisfaction, are also selecting careers in primary care at rates higher than categorical and primary care track internal medicine programs nationwide.

While leveling the financial playing field for primary care providers relative to subspecialty physicians may well play a significant role in enhancing career satisfaction among practitioners, physician wellness is an under-appreciated element and may make significant positive impacts as well. Attention to and investment in physician well-being, particularly during the very formative years of residency, can pay dividends in fostering long-term job satisfaction. The habits that physicians learn and the values that are developed in residency training are likely very important to their future careers. How this can be optimally achieved and amplified (for example, through formalized employee health programs or development of wellness curricula) could be an intriguing area of future study, and potentially guide changes to training programs and care practice models if Rhode Island hopes to meet the growing need for primary care physicians.

The strength of this survey lies in its strong participation rate, and is unique for the span of time across which physicians participated. In terms of limitations, our sample size was relatively small and lacking in racial diversity. All physicians surveyed were from a single residency program, and so results cannot easily be generalized. Additionally, this survey only provides data for a single point in time. As the free response section of our survey indicated, the career of an internal medicine physician can take many turns, and changes in career focus can occur. For example, numerous recent graduates pursued hospitalist work in the period immediately after residency, with the ultimate goal of pursuing primary care in the long term.

While these survey results may not be generalizable to the outcomes of other training programs, the findings are noteworthy and heartening, given the ebbs and flows regarding interest and value assigned to primary care as a career in internal medicine.

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