Enthusiasm for Primary Care

Comparing Family Medicine and General Internal Medicine

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OBJECTIVE: To compare attitudes and perceptions of primary care among faculty, students, and residents oriented toward family medicine (FM) and general internal medicine (GIM).

DESIGN: Descriptive study using confidential telephone interviews.

PARTICIPANTS: National stratified probability sample of FM and GIM faculty ($n = 68$), residents ($n = 196$), and students ($n = 81$).

MEASUREMENTS AND MAIN RESULTS: We created indicators for attitudes toward primary care among the faculty that included perceptions of medical practice, experiences within the academic environment, and support for primary-care-oriented change. For the students and residents, we explored their perceptions of faculty and resident attitudes toward primary care, their perception of encouragement to enter primary care, and their satisfaction with training. Family medicine faculty showed more enthusiasm for primary care as manifested by their greater likelihood to endorse a primary care physician to manage a serious illness (FM 81.3% vs GIM 41.1%; $p < .01$), their strong encouragement of students to enter primary care (FM 86.2% vs GIM 36.3%; $p < .01$), and their greater support for primary-care-oriented changes in medical education (FM 56.8% vs GIM 14.7%; $p < .01$). Family medicine students and residents were more likely to perceive the primary care faculty as very satisfied with their work (FM 69.2% vs GIM 51.5%; $p < .05$), to feel strongly encouraged by peers toward primary care (FM 59.5% vs GIM 16.1%; $p < .0001$), and to have a primary care role model (FM 84.3% vs GIM 61.3%; $p < .05$).

CONCLUSIONS: Family medicine faculty, students, and residents showed a consistent pattern of greater enthusiasm for primary care than their GIM counterparts. This may be a reflection of the different cultures of the two disciplines.

KEY WORDS: family medicine; general internal medicine; primary care; attitudes; perceptions.

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Academic family physicians and general internists occupy similar niches within the academic health center. They practice primary care medicine; they act as role models for recruiting and training students and residents for primary care; they oversee a primary care curriculum; they act as advocates within medical schools and within the larger public arena for greater resources for primary care; and they do primary care research. Their relationship is marked by both cooperation and competition.¹⁻⁴ Cooperation occurs in defining and enhancing the education of the generalist physician. Competition occurs in the pursuit of scarce resources for research and education and in the recruitment of medical students to fill spaces in their residency training programs.

Many studies have documented the factors that attract students and residents to primary care careers.⁵⁻¹⁵ These include the presence of a family practice residency within the medical school, exposure to outpatient experiences, and a medical school mission that emphasizes primary care. Role models also have been shown to be a significant influence on the choice of a career in primary care.¹⁶ Academic family physicians and general internists who serve as role models for primary-care-oriented students and residents may exhibit differences in their enthusiasm for primary care, which may, in turn, be reflected in the attitudes and choices of these students and residents. As far as we are aware, no studies have explored how students and residents choose between a career in family medicine or general internal medicine.

An earlier report of a national survey documented a low affinity among specialists and subspecialists for the values of primary care and negative attitudes toward the competence of primary care physicians in research and clinical care.¹⁷ This article focuses more specifically on the attitudes and experiences of primary-care-oriented students, residents, and faculty and explores the differences between general internists and family physicians in their attitudes and enthusiasm for primary care.

METHODS

This report is a subgroup analysis of a larger national survey of attitudes about the education and practice environment for primary care, "Attitudes and Choices in Medical Education and Training."¹⁷ In an earlier report of the results, which includes a more detailed description of the methods, primary care faculty and primary-care-oriented students and residents were not distinguished by their identification as practitioners of family medicine (FM), general internal medicine (GIM), or general pediatrics.

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This report examines in detail the responses of FM and GIM faculty ($n = 68$), and residents ($n = 196$) and students ($n = 81$) who plan careers in FM and GIM. General pediatricians were excluded from this analysis.

Sample

Using national databases from the American Medical Association and the Association of American Medical Colleges, we drew stratified probability samples of fourth-year medical students, residents in their second postgraduate year (PGY-2), and full-time faculty. We used disproportionate sampling fractions within strata to ensure the representation of particular groups of interest (e.g., primary care residents). Faculty, students, and residents were included in these analyses if they identified themselves as practicing or intending to practice FM or GIM.

Between October 1993 and March 1994, the Center for Survey Research of the University of Massachusetts, Boston conducted confidential 20-minute telephone interviews with each individual in our sample. Response rates for the larger strata of faculty, PGY-2 residents, and fourth-year medical students were 81%, 78%, and 92%, respectively. We have no specific information about the response rates among FM and GIM subjects as they were identified only after they agreed to participate in the study. However, the proportion of primary care respondents in our sample (11%) closely approximates the national proportion of primary care clinical faculty.

Measures

Through a review of the literature and focus groups of students, residents, and academic leaders, we identified constructs that characterize a range of attitudes toward primary care. These constructs included competence in clinical medicine, teaching, and research; expertise in addressing a variety of health care problems; the academic environment for primary care; sources of satisfaction and perceived problems in primary care practice; and support for primary-care-oriented changes in medical education. Survey questions were developed to serve as indicators of these constructs and were pretested, with the results leading to minor revisions in the questionnaire. The 17 indicators of attitudes toward primary care are presented in Table 1. Dichotomous variables were constructed as positive versus neutral or negative toward primary care. Continuous measures are reported directly.

Results from the larger sample demonstrated the convergent, discriminant, and predictive validity of the survey instrument across specialty groups. Convergent validity was demonstrated because the responses of the members of each subgroup were more similar to each other than to the members of other subgroups. Discriminant validity was demonstrated by the ability of the instrument to distinguish among various subgroups, and the predictive validity was demonstrated because the re-

sponses of the residents and students were indicative of future career choice or internship match.

Analytic Approach

Because we oversampled several subgroups of respondents and used sampling fractions for each subsample, we developed sampling weights that generalize sample results back to the population in all analyses to adjust for the differences in the probability of selection.¹⁸ To estimate parameters and their standard errors appropriately, we used a specialized statistical program, SUDAAN (RTI Park, NC; Research Triangle Institute; 1992), designed for the analysis of complex probability sample data.

We conducted descriptive analyses of enthusiasm for primary care for individual items within several dimensions of the professional lives of FM and GIM practitioners. To determine whether variation in faculty responses was associated with identification with FM or GIM, we fit a series of univariate, logistic regression models (in the case of dichotomous responses) and one-way analysis of variance models (in the case of continuous responses) with one predictor (FM or GIM status). For students and residents, we also looked at individual items and fit two separate univariate models. In the first model, FM or GIM status was the single predictor. In the second, resident or student status was the single predictor. The interaction between FM/GIM status and resident/student status was examined through a multivariate model in which both univariate predictors and the interaction term were fit simultaneously. We used adjusted Wald F statistics because of the stratification and unequal sampling fractions used in this study to test hypotheses between FM/GIM groups and resident/student groups, as well as their interaction. All differences cited are statistically significant at the $p = .05$ level.¹⁹ We also note instances where differences approached the $p = .05$ level, though with so many item-level analyses we focus on differences $< .01$.

RESULTS

Primary Care Faculty

Table 2 shows the background characteristics of the GIM and FM faculty and reveals that the two groups were similar demographically. They were also similar in academic rank and in their orientation to the socioemotional aspects as compared with the technological aspects of medicine. On average, both FM and GIM faculty reported spending 14.7% of their time teaching medical students. They were also similar in the percentage of time spent teaching residents (FM 21.9% and GIM 25.1%).

Attitudes Toward Competence of Primary Care Physicians

Table 3 presents the attitudes of GIM and FM faculty toward several dimensions of the competence of primary

care physicians. We sampled respondents' views on the expertise required to perform procedures usually associated with subspecialties and their views on the expertise required to perform tasks usually considered within the realm of the primary care physician. Family medicine faculty were less likely than GIM faculty to view the performance of cystoscopy or the management of dialysis as requiring high expertise. Family medicine faculty were more

likely to view achieving patient compliance with a medical regimen as requiring high expertise ($p = .05$), but were less likely to view the management of depression as requiring high expertise.

Family medicine faculty were twice as likely as GIM faculty to view a primary care physician as the best doctor to take care of a serious medical illness (a patient with ulcerative colitis and a patient with a complicated fever and

Table 1. Attitudes Toward Primary Care: Faculty, Resident, and Student Indicators

Dimensions of Attitudes Toward Primary Care	Indicators of Attitudes Toward Primary Care
Faculty attitudes	
Attitudes toward the competence of primary care physicians	
Rating primary care tasks as requiring a high degree of expertise	Faculty rate degree of expertise required to perform task as high: * <i>manage dialysis, perform a cystoscopy, manage depression, achieve patient compliance</i>
Endorsement of primary care physician as best physician to treat more serious medical conditions	Faculty identify primary care physician as most appropriate doctor for both a 45-year-old woman with ulcerative colitis and a long-standing relationship with her primary care physician and a 55-year-old woman with skin rash, joint pain, fever and fatigue [†]
Endorsement of primary care physician as best physician to treat less serious medical conditions	Faculty identify primary care physician as most appropriate doctor for both a 62-year-old man with low back pain and an 8-year-old boy with asthma [†]
Primary care teaching and research	
Perceived quality of primary care research	Faculty rate the quality of primary care research as better than other fields [‡]
Perceived quality of primary care teaching	Faculty rate the quality of primary care teaching as better than other fields [‡]
Support for primary care career choice	
Encouraging students to enter primary care	Faculty report strongly encouraging students to enter primary care [§]
Sources of satisfaction and problems in primary care practice	
Sources of satisfaction in practice	Faculty identify item as source of satisfaction: <i>dealing with psychosocial problems of patients, opportunity to practice preventive medicine, use of technology, work hours, income, prestige of the field, research opportunities, control of practice conditions</i>
Overall satisfaction with career	Faculty rate their overall satisfaction with their medical career [¶]
Problems in practice	Faculty identify item as a large problem: # <i>demands for productivity, administrative demands, patient social and economic distress, adversarial role with patients, administrative support, on-call responsibility, future income</i>
Support for changes in medical education	
Support for global change in medical education	Faculty report strongly supporting global changes**
Support for specific changes	Faculty support each of the changes: †† <i>decreasing education in basic science and increasing preventive, psychosocial, and ethical aspects of medicine; shifting half of inpatient to outpatient settings; replacing subspecialty electives with primary care rotations; decreasing teaching by specialists and increasing primary care teaching; decreasing the number of specialty residencies</i>
Resident and student indicators	
Psychosocial aspects of patient care	Students and residents report that dealing with psychosocial aspects of patient care makes primary care more attractive ^{‡‡}
Perceptions of faculty and residents' attitudes toward primary care	
Perceived satisfaction of faculty	Students and residents report that primary care faculty are very satisfied ^{§§} Students and residents report that specialist faculty are very satisfied ^{§§}

Table 1. Continued

Dimensions of Attitudes Toward Primary Care	Indicators of Attitudes Toward Primary Care
Positive attitudes toward primary care physicians	Students and residents report that specialists display mostly positive attitudes toward primary care physicians Students report that residents display mostly positive attitudes toward primary care physicians
Encouragement to enter primary care	Students and residents report being encouraged to enter primary care by faculty ^{¶¶} and peers ^{##}
Primary care role model	Students and residents report having a primary care role model ^{***}
Satisfaction with training	Students and residents report being very satisfied with their school's/program's training of primary care physicians ^{††} Students and residents report being very satisfied with their school's/program's training of specialist physicians ^{††}

* Respondents rated the degree of expertise required as being high, medium, or low.

† Respondents were asked to identify best doctor to treat prototypical patients.

‡ Respondents rated quality as being better, same, or worse than other specialties.

§ Respondents reported strongly encouraging, somewhat encouraging, somewhat discouraging, or strongly discouraging students to enter primary care.

|| Respondents rated aspect of medical practice as a source of satisfaction, dissatisfaction, or neither.

¶ Respondents rated satisfaction as very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied.

¶ Respondents rated aspect of medical practice as a large problem, small problem, or no problem.

** Respondents rated support for global change as strongly support, somewhat support, somewhat oppose, strongly oppose.

†† Respondents rated support for changes as support, oppose, or neither.

‡‡ Respondents were asked if dealing with psychosocial aspects of patient care makes primary care more attractive, less attractive, or has no effect.

§§ Respondents rated perceived satisfaction of primary care and specialist faculty as very satisfied, somewhat satisfied, somewhat dissatisfied, very dissatisfied.

|| Respondents rated perceived attitudes as mostly positive, neutral, mostly negative.

¶¶ Respondents were asked if they were encouraged strongly toward specialties, somewhat toward specialties, strongly toward primary care, somewhat toward primary care, or neither.

Respondents were asked if they were encouraged to enter primary care, specialties, or neither.

*** Respondents indicated if their role model was a primary care physician or a specialist.

††† Respondents rated satisfaction with program as very satisfied, somewhat satisfied, somewhat dissatisfied, very dissatisfied.

rash), while the GIM faculty were more likely to recommend a specialist or subspecialist for these conditions. Both groups equally recommended a primary care physician to care for a patient with a less serious illness (childhood asthma or back pain).

Primary Care Teaching and Research

In general, FM faculty held more favorable views of the teaching and research of primary care physicians. Fifty-nine percent of the FM faculty as compared with 38.3% of the GIM faculty thought that the quality of primary care teaching was better than the teaching in other fields, though the difference did not reach statistical significance ($p = .16$). Only 1% of the GIM faculty viewed primary care research as better than research in other fields as compared with 17.3% of the FM faculty.

Support for Primary Care Career Choice

Family medicine faculty were much stronger advocates of primary care careers than GIM faculty. Eighty-six percent of FM faculty and 36.3% of GIM faculty reported strongly encouraging students to enter primary care.

Table 2. Background Characteristics of Family Medicine (FM) and General Internal Medicine (GIM) Faculty, Residents, and Fourth-Year Students

Characteristic	Faculty, % (n = 68)	Residents, % (n = 196)	Fourth-Year Students, % (n = 81)
Personal			
White			
FM	92.1	81.6	75.6
GIM	89.1	78.6	57.0
Male			
FM	70.6	55.4	54.2
GIM	70.1	58.1	61.0
Rural hometown			
FM	—*	15.0	11.8
GIM	—*	7.5	0.0
Professional			
Socioemotional orientation to medicine			
FM	66.7	60.2	68.2
GIM	55.2	53.8	70.5
Full professors			
FM	12.9	—*	—*
GIM	22.8	—*	—*

* Data not applicable.

Table 3. Indicators of Attitudes Toward Primary Care: Family Medicine (FM) Versus General Internal Medicine (GIM) Faculty

Indicator	Total, % (n = 68)	FM, % (n = 34)	GIM, % (n = 34)	Hypothesis Test of Difference by Specialty
Perceived competence of primary care				
High expertise is required in:				
Managing dialysis	63.3	46.3	79.1	$F_{(1,66)} = 5.22^*$
Performing cytoscopy	41.0	19.7	61.7	$F_{(1,66)} = 8.32^\dagger$
Achieving compliance	59.0	73.4	45.6	$F_{(1,66)} = 3.85, p = .05$
Managing depression	35.5	20.7	49.2	$F_{(1,66)} = 4.24^*$
Primary care doctor is best to treat serious illness	60.5	81.3	41.1	$F_{(1,66)} = 7.66^\dagger$
Primary care teaching and research				
Quality of primary care teaching is better than in other fields	48.2	58.8	38.3	$F_{(1,66)} = 2.00, p = .16$
Quality of primary care research is better than in other fields	8.6	17.3	1.0	$F_{(1,66)} = 6.72^*$
Support for primary care career choice				
I strongly encourage students to enter primary care	60.9	86.2	36.3	$F_{(1,66)} = 11.36^\dagger$
Support for change in medical education				
Global change in medical education	81.7	93.1	71.0	$F_{(1,66)} = 3.61, p = .06$
Decreasing education in basic science, increasing preventive, psychosocial, and ethical aspects of medicine.	67.0	80.3	54.6	$F_{(1,66)} = 3.53, p = .07$
Shifting half of current inpatient to outpatient settings	70.8	81.3	61.1	$F_{(1,66)} = 2.32, p = .13$
Replacing subspecialty electives with primary care rotations	83.5	88.2	79.1	$F_{(1,66)} = 0.70, p = .40$
Decreasing teaching by specialists, increase primary care teaching	77.8	93.1	63.7	$F_{(1,66)} = 5.36^*$
Decreasing the number of specialty residencies to force increased primary care options	72.1	84.4	60.2	$F_{(1,66)} = 3.02, p = .09$
All 5 individual changes in medical education	35.0	56.8	14.7	$F_{(1,66)} = 9.46^\dagger$

* $p < .05$.† $p < .01$.

Sources of Satisfaction and Perceived Problems in Primary Care Practice

Family medicine and GIM faculty were equally satisfied with their careers overall. Fifty-seven percent of FM faculty and 54.6% of GIM faculty reported being very satisfied with their careers. Potential sources of satisfaction or dissatisfaction in primary care practice among GIM and FM faculty were also quite similar with one notable contrast. Of the FM faculty, 79.6% viewed dealing with psychosocial problems as a source of satisfaction, while only 46.7% of the GIM faculty shared this view. Family medicine faculty and GIM faculty were similarly satisfied with the opportunity to practice preventive medicine, the use of technology, work hours, prestige of the field, research opportunities, income, and the control of practice conditions. We also found no differences in the percentage of FM and GIM faculty who rated demands for productivity, administrative demands, patient social and economic distress, the adversarial role between patient and physician, administrative support, on-call responsibility, or future income as a large problem in their practice and

teaching situation. Both groups found that administrative demands constituted the most distressing issue and represented a large problem for 67.5% of the FM faculty and 75.3% of the GIM faculty ($p = .54$).

Support for Primary-Care-Oriented Change in Medical Education

On both the global indicator of support for primary-care-oriented educational changes and the specific reform proposals we examined, there was a trend for FM faculty to show more positive attitudes than GIM faculty, though not all of these differences reached statistical significance (see Table 3). Family medicine faculty were far more likely to support all five of the individual changes in medical education (56.8%) than were the GIM faculty (14.7%).

Students and Residents

We surveyed fourth-year medical students and PGY-2 residents to examine their perceptions of the academic

medical environment for primary care. Table 2 shows the demographic characteristics of these two groups. There was no difference between FM and GIM students and residents in their orientation to the socioemotional aspects as compared with the technical aspects of medicine. Socioemotional orientation was lower for the residents than for the medical students in both groups. Family medicine residents and students were more likely than their GIM counterparts to believe that dealing with psychosocial problems of patients made primary care more attractive.

Perception of Faculty and Resident Attitudes Toward Primary Care

Although FM and GIM faculty saw themselves as equally satisfied with their work, students and residents had different perceptions. As presented in Table 4, FM students and residents were more likely than GIM students and residents to view primary care faculty as very satisfied with their work. The GIM residents were more likely than FM residents to view specialty faculty as very satisfied. There were no differences between GIM and FM students in their perception of specialist faculty satisfaction.

Approximately half of the residents and only 28% of the students characterized the attitudes of specialist faculty as mostly positive toward primary care. Even fewer of the specialty residents were perceived as holding mostly positive attitudes toward primary care. This was especially striking among GIM students, among whom only 8.4% viewed the attitudes of residents to be mostly positive toward primary care.

Encouragement to Enter Primary Care

Students and residents did not feel strongly encouraged by faculty to enter primary care fields. Overall, less than a quarter of the residents and students felt strongly encouraged by faculty to enter primary care; there was a trend for the GIM students and residents to feel less strongly encouraged by faculty ($p = .10$). Moreover, GIM students and residents were far less likely to report receiving encouragement from their peers. Only 30.2% of the GIM residents and 3.1% of the GIM students felt strongly encouraged to enter primary care fields by their peers as compared with 70.5% of FM residents and 51.4% of FM students.

Primary Care Role Model

The GIM residents and students were less likely to have a primary care role model than their FM counterparts, while the FM residents were the most likely to have a primary care role model.

Satisfaction with Training

The GIM residents and students were more likely than their FM counterparts to be very satisfied with their training for specialty medicine. In contrast, more FM residents than GIM residents were very satisfied with training for primary care. No differences were noted among FM and GIM students.

DISCUSSION

These data from a national survey of the attitudes and experiences of faculty, students, and residents reveal a high level of enthusiasm for primary care in FM that is not shared by their GIM colleagues. This difference is especially striking among the faculty and cuts across all the studied dimensions of medical practice, academic environment, and support for educational change. Family practice faculty were more likely to downgrade the expertise of specialists and to endorse the primary care physician as the best physician to treat complicated diseases. Family physicians were also far more likely to strongly encourage students to enter primary care and to hold positive attitudes about the quality of primary care teaching and research. They also more strongly supported changes in medical education to enhance the training of primary care physicians.

Although the differences were not as dramatic, FM and GIM faculty attitudes were reflected in the views of students and residents. Both FM students and residents perceived primary care faculty as very satisfied with their work. The GIM residents viewed specialty faculty as more satisfied with their work. Both GIM students and residents were somewhat less likely to feel strongly encouraged to enter primary care and were less likely to have a primary care role model.

Differences between GIM and FM faculty are not explained by variation in their perception of the conditions of their work, in their report of career satisfaction, or in their academic rank. We suggest several possibilities for these differences that grow out of the cultural differences between FM and GIM.^{20,21} Several commentators have noted that FM became a board-certified discipline to address a political need to maintain its professional status in the face of criticism of the medical competence of general practitioners. Students entering the field in the early years were said to be rebellious and nonconformist. Many now fill the faculty ranks of FM training programs. This rebellious spirit may explain some of the higher esprit de corps that FM faculty demonstrated in this study, despite the continued adverse views of the medical education establishment toward their discipline.

Furthermore, FM and GIM may attract different kinds of people. While FM and GIM students, residents, and faculty claimed similar levels of socioemotional orientation, FM-oriented respondents were likely to gain more satisfaction from dealing with the psychosocial problems

Table 4. Indicators of Attitudes Toward Primary Care: Family Medicine (FM) Versus General Internal Medicine (GIM) Residents and Fourth-Year Students

Indicator	All, % (n = 277)	Residents, % (n = 196)	Fourth-Year Students, % (n = 81)	Hypothesis Test of Difference by		
				Specialty	Academic Status	Specialty × Academic Status
Psychosocial aspects of patient care						
Dealing with psychosocial problems of patients makes primary care more attractive						
All	60.5	44.5	73.5			
FM	67.5	53.1	78.2	$F_{(1,259)} = 4.00^*$	$F_{(1,259)} = 12.32^†$	$F_{(3,259)} = 6.16^†$
GIM	51.6	35.1	66.9			
Perceptions of attitudes toward primary care						
Primary care faculty perceived to be very satisfied						
All	61.4	48.3	72.0			
FM	69.2	54.4	80.1	$F_{(1,259)} = 5.00^*$	$F_{(1,259)} = 8.55^‡$	$F_{(3,259)} = 4.38^‡$
GIM	51.5	41.4	60.6			
Specialist faculty perceived to be very satisfied						
All	37.8	33.9	41.0			
FM	33.7	23.6	41.0	$F_{(1,259)} = 1.23,$ $p = .27$	$F_{(1,259)} = 0.81,$ $p = .37$	$F_{(3,259)} = 2.97^*$
GIM	43.0	45.5	40.8			
Specialist faculty attitudes toward primary care physicians mostly positive						
All	37.3	48.7	28.0			
FM	37.1	47.7	29.3	$F_{(1,259)} = 0.00,$ $p = .97$	$F_{(1,259)} = 6.50^*$	$F_{(3,259)} = 2.20,$ $p = .09$
GIM	37.5	49.8	26.2			
Residents' attitudes toward primary care physicians mostly positive						
All	24.7	34.3	17.1			
FM	27.2	32.0	23.7	$F_{(1,259)} = 0.61,$ $p = .43$	$F_{(1,259)} = 5.33^*$	$F_{(3,259)} = 2.35,$ $p = .07$
GIM	21.8	36.6	8.4			
Encouragement to enter primary care						
Strongly encouraged toward primary care by faculty						
All	22.8	22.4	23.1			
FM	27.7	25.8	29.2	$F_{(1,259)} = 2.69,$ $p = .10$	$F_{(1,259)} = 0.01,$ $p = .91$	$F_{(3,259)} = 0.95,$ $p = .42$
GIM	16.5	18.6	14.6			
Strongly encouraged toward primary care by peers						
All	40.2	51.2	31.2			
FM	59.5	70.5	51.4	$F_{(1,259)} = 37.5^§$	$F_{(1,259)} = 6.30^*$	$F_{(3,259)} = 19.95^§$
GIM	16.1	30.2	3.1			
Primary care role model identified						
All	74.2	77.0	72.0			
FM	84.3	93.5	77.1	$F_{(1,259)} = 6.50^*$	$F_{(1,259)} = 0.40,$ $p = .53$	$F_{(3,259)} = 6.79^†$
GIM	61.3	57.0	65.1			

Table 4. Continued

Indicator	All, % (n = 277)	Residents, % (n = 196)	Fourth-Year Students, % (n = 81)	Hypothesis Test of Difference by		
				Specialty	Academic Status	Specialty × Academic Status
Satisfaction with training						
Very satisfied with training for specialties						
All	49.3	52.0	47.7	$F_{(1,259)} = 7.29^\ddagger$	$F_{(1,259)} = 0.25,$ $p = .62$	$F_{(3,259)} = 3.41^*$
FM	35.4	35.2	35.5			
GIM	62.0	60.4	63.3			
Very satisfied with training for primary care						
All	34.6	44.0	27.1	$F_{(1,259)} = 1.79,$ $p = .18$	$F_{(1,259)} = 4.42^*$	$F_{(3,259)} = 4.02^\ddagger$
FM	39.3	54.2	28.5			
GIM	28.7	32.6	25.1			

* $p < .05$.† $p < .001$.‡ $p < .01$.§ $p < .0001$.

of patients. The GIM faculty were more likely than the FM faculty to rate specialty procedures as requiring a high level of expertise. People attracted to GIM may have more affinity with subspecialty values, which may create some tension or ambivalence in their commitment to primary care values.

It is also possible that the different locations of FM and GIM within the medical school or teaching hospital could have a great effect on the attitudes and experiences of primary care faculty. Family medicine faculty are usually based in their own department, which may be separate and insulated from the rest of the academic health center. This may allow for the creation of a culture that is more supportive of primary care values. Conversely, GIM faculty are usually a small subset of a larger, subspecialty-dominated department of medicine. This may make them feel more conflicted in their loyalty to primary care values and may even lead to an internalized self-deprecation that is demonstrated by their preference for a subspecialist to take care of more complicated medical problems and their low level of encouragement of students to enter primary care.

There are some limitations to the data in this study. The number of primary care faculty is low, which is a reflection both of the sampling method used in the larger survey and of their low representation within medical schools, accounting for only 11% of the faculty in the larger sample (including general pediatricians). This could lead to type II errors causing us to understate some of the differences between FM and GIM faculty. It is also possible that, by chance, the sample is skewed and does not represent the attitudes of primary care faculty in general. In addition, because well-validated survey instruments on perceptions of and attitudes toward primary care do not exist, we developed our own instruments. A previous re-

port has demonstrated the convergent, discriminant, and predictive validity of the survey instrument across specialty groups,¹⁷ but it is less certain that the subtle differences between similar groups represent valid and reliable distinctions. Although the interpretation of any one question may be arguable, the consistency in the pattern of responses gives the conclusions weight and meaning.

As internal medicine residencies shift to the production of more general internists and fewer subspecialists, they will need to shift the values of these clinical environments to nurture positive attitudes and self-esteem among the students and residents entering primary care fields. This can occur through an emphasis on GIM as a unique discipline that is more than a condensation of medical subspecialties. While a global change in the attitudes of the medical educational environment is warranted, GIM faculty play a key part as role models. General internists will need to develop strategies to improve their role as enthusiastic advocates for their chosen field and may have something to learn from their FM colleagues.

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