Residency Education

Choosing a Career in Combined Internal Medicine-Pediatrics: Insights from Interns

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Background: *Combined internal medicine-pediatrics (med-peds) programs may be competing for the same students who would have otherwise chosen family medicine. The degree to which this is happening is not known.* Methods: *We sent an eight-item questionnaire to new med-peds interns to assess their career plans at different stages of their decision making. Questionnaires were mailed to the directors of all US med-peds programs in 2002.* Results: *A total of 288/333 (87%) responded. The med-peds interns were more likely to be interested in internal medicine or pediatrics than they were in family medicine. If med-peds were not available, only 52/286 (18%) would have chosen family medicine as an alternative. A total of 55/288 (19%) anticipated practicing in rural areas.* Conclusions: *The majority of med-peds interns would have chosen internal medicine or pediatrics if med-peds was not available. A small percentage would have chosen family medicine, thus having a minor impact on recruitment. An even smaller proportion would have chosen a non-primary care specialty. A sizable number anticipate practicing in rural areas.*

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The training of the generalist physician has evolved over the last 40 years into several distinct pathways: internal medicine, pediatrics, family medicine, and combined internal medicine-pediatrics (med-peds). Med-peds programs grew from 1-year internships to a 4-year med-peds residency in 1967, leading to certification by both the American Board of Internal Medicine and the American Board of Pediatrics.[1] While only four programs were in existence by 1980, the numbers increased over the next 2 decades to 89 programs in 2005.[2]

Family medicine was also created in 1967 in response to the Millis Commission Report, which cited an increasing number of students choosing careers as specialists and the need to train generalist physicians in the comprehensive health care for the individual and the family.[3] The number of family medicine training programs had also increased considerably, yet with the decline in interest in primary care in recent years, the percentage of US medical students choosing family medicine has decreased more than for other primary care disciplines.[2]

The authors of a recent review of med-peds program outcomes have suggested that this decline in student interest in family medicine can be explained in part by the existence of med-peds programs.[4] These authors went on to suggest that med-peds programs are competing with family medicine for grant support that was targeted for training programs in primary care and practice in underserved areas, yet were not producing graduates who practiced in these areas. Approximately two thirds to three quarters of all graduates of med-peds programs enter primary care practice, and about one fifth of them enter practice in rural underserved areas.[5,6] Whether or not med-peds programs are increasing the number of physicians entering primary care and physician shortage areas depends not only on the plans of graduates from these programs but also on the level of interest the residents had in these areas when they entered the training program. There is no published data showing that training in med-peds either increases or decreases interest in either primary care or in practicing in physician shortage areas.

While it seems likely that students who choose internal medicine or pediatrics over other careers desire

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to limit their training to a particular age group, it is not clear how and why students who desire to care for patients of all ages choose between family medicine and med-peds. A recent study of applicants to med-peds programs showed that 23% would have chosen family medicine as an alternative if med-peds were not available.[7] This study may have overestimated the true percentage of who would have chosen family medicine instead of med-peds, since it included all applicants to med-peds programs, including those who applied to more than one specialty and those who ultimately changed their mind and entered a different specialty during their fourth year.

The goals of the current study were (1) to explore the degree to which med-peds residencies are competing with family medicine and other primary care training programs for the same students, (2) to investigate whether med-peds programs are adding students to the pool of those selecting primary care specialties, (3) to determine the interest of those entering med-peds residency programs in practicing primary care upon graduation from residency and in working in underserved areas, and (4) to determine if med-peds training is increasing or decreasing interest in practice in primary care and underserved areas.

Methods

An eight-item questionnaire was developed, based on results of a focus group of seven senior medical students, four of whom had recently matched in a family medicine residency and three of whom had matched in a med-peds residency. The survey was developed for a prior study done in 1996 and was subsequently revised.[8]

The questionnaire was distributed via e-mail to the program directors of all active med-peds residency programs. The program directors were instructed to distribute the survey to their interns at orientation in June of 2002. A second distribution was done for nonrespondents. Interns were queried about three main areas: types of residency training programs they considered at each stage of the application process, which discipline they would have chosen if med-peds were not available, and their future career plans.

Approval for the study was obtained from the Borgess Medical Center Institutional Review Board. It was determined that informed consent for this survey was not required for this study by the sponsoring institution[9] but was required at several individual participating institutions—with consent defined as implied by the majority of participating institutions by the completion of the survey.

The interns participating in the study were instructed to return the completed survey to their program director. The program directors tallied the results and submitted only aggregate data to the investigators. Simple descriptive statistics were used to determine the frequencies of intern responses to each question. Analysis of variance was used to determine differences between regions of the country.

Results

Responses were received from 76 (82%) of the 93 active programs. Of the 333 interns in these programs, responses were received from 288 (87%).

As expected, med-peds interns were more frequently interested in med-peds compared with other specialties throughout the application process (Table 1). They also inquired more frequently about residency programs in internal medicine and in pediatrics rather than programs in family medicine or other specialties. During the application, interview, and ranking process, the interest in family medicine diminished, while those still considering internal medicine or pediatrics declined at a lower rate.

If med-peds training was not available, 209 of 286 (73%) respondents would have chosen either of two categorical programs in internal medicine or pediatrics (41% and 32%, respectively). A smaller proportion, 52 of 286 (18%) respondents, would have chosen family medicine (Figure 1). Interestingly, 25 of 286 (9%) respondents would have chosen a non-primary care field (such as surgery) if med-peds was not available.

Table 1

Med-Peds Interns' (n=288) Interest in Various Career Options Through the Residency Selection Process

	Med-Peds	*Internal Medicine*	*Pediatrics*	*Family Medicine*	*Other*
Considered as a career	86.8%	55.2%	50.7%	33.0%	19.1%
Inquired/contacted programs	93.8%	30.6%	29.9%	20.8%	8.3%
Applied to a program	94.8%	18.4%	17.4%	8.3%	4.2%
Interviewed at a program	94.8%	16.7%	14.2%	5.9%	4.2%
Ranked program	94.3%	12.9%	11.4%	3.6%	3.5%

The numbers in the first column are not 100%, likely due to a number of factors. Students may not have considered med-peds until later in their fourth year of school. Additionally, 5%–6% may have had out of match positions that they never really applied to, interviewed at, or ranked.

Med-peds—combined internal medicine-pediatrics

A total of 115/271 (42%) of the interns reported plans to pursue further fellowship training after graduation. Our survey instrument did not specify whether the intended fellowships were for subspecialization or for other purposes. A total of 55/288 (19%) thought they would eventually practice in a rural setting, and 118/288 (41%) anticipated practicing in an urban location.

There were no differences between geographic regions of the United States with respect to alternate careers pursued, fellowship interest, or anticipated future practice location.

Discussion

This study has a number of notable findings. First, med-peds residents distinguish themselves early as being more interested in both internal medicine and pediatrics than in family medicine. Second, med-peds attracts a small number of students who may not have otherwise entered a primary care discipline. Third, sizeable portions of students entering med-peds are considering subspecialty fellowship training or practicing in rural areas, locations that are traditionally medically underserved.

Selection of Med-Peds Training

Our study shows that the majority of med-peds interns also considered other primary care careers when deciding on a residency training program, but only 18% of the respondents in our study would have chosen family medicine if med-peds were not available. If 18% of all of the 340 residents who matched into med-peds in the same year had entered family medicine, approximately 61 more students would have been added to the pool of 2,342 residents matching into the 2,962 positions offered in the Match in family medicine, increasing the overall Match rate from 79% to 81%.[2] Thus, med-peds programs have little effect on the Match rate into family medicine programs.

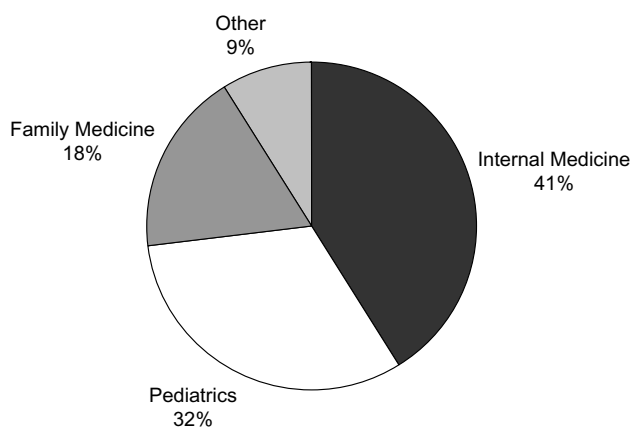
Most med-peds interns would have chosen to limit their practice to adults or children in an internal medicine or pediatric residency rather than choose family medicine. This suggests differences in goals for residency training even at this early point in the students' careers. Applicants to med-peds programs may be more like those applying to internal medicine and pediatrics programs than they are like those applying to family medicine programs. A recent study of student decision making in primary care showed that med-peds residents were more like pediatric residents in their desire to care for children and more like internal medicine residents in the strength of their desire to care for adults than they were like family medicine residents.[10] They were also similar in their desired practice locations. While no group of primary care residents as a whole desired having obstetrics as part of their practice, family medicine residents were significantly more interested than the other groups in this respect.[10]

A study of med-peds graduates found that those who chose to leave med-peds for another specialty were much more likely to enter internal medicine or pediatrics rather than family medicine, further supporting the importance of factors other than the age range.[5] Some studies suggested that these other factors include a preference for depth over breadth of training in the care of both adults and children, an intellectually challenging residency, and more "academic" residents and faculty.[1,7,8,11-13]

Studies of med-peds residents in training in 1989 and 1996 showed they had also considered other primary care specialties during the decision-making process (Table 2).[8,14] Our results differ from these older studies in that the current group of residents appear more committed to med-peds at each step in the process. In the 1989 study, 21% of students applied to and 14% ranked family medicine programs in addition to med-peds. In contrast, in the current study, only 8.3% applied to and 3.6% ranked these programs. These changes suggest that students are more confident in their decision to pursue a career in med-peds earlier in the process than they were in the 1980s and may reflect maturation of the specialty. In the 1980s, there were fewer med-peds role models in residency and in practice with whom students could interact. In addition, at that time, there

Figure 1

Alternate Careers Considered by Med-Peds Interns (n=288) in 2002



The percentage represents the proportion of interns who would have chosen the discipline as an alternate career choice if med-peds was not an option.

Med-peds—combined internal medicine-pediatrics

Table 2

Med-Peds Residents' Interest in a Career in Family Medicine in Three Studies in 3 Decades

	1989[14]	*1996*[8]	*2002*
Considered as a career	NA	48%	33%
Inquired about programs	34%	30%	21%
Applied to a program	21%	16%	8%
Interviewed at a program	NA	15%	6%
Ranked a program	14%	7%	4%

Med-peds—combined internal medicine-pediatrics

were fewer med-peds programs, and many students may not have learned of med-peds until relatively late in the application process.

Looking beyond the issue of competition for a limited pool of primary care residents, we also found that 9% of residents in this study would have chosen a non-primary care specialty if med-peds was not available. It appears that there is no single type of primary care training program that can meet the needs of all students interested in primary care. By not limiting the training in primary care of adults and children to a single specialty such as family medicine, med-peds programs not only increase the number of primary care specialty training options for students but also increase the number of students entering into primary care training.

Fellowships

Forty-two percent of med-peds interns in this study anticipated entering subspecialty fellowship. This number is higher than the actual percentage of recent graduates that has been reported to enter fellowships (22%).[5] There are several possible explanations for this difference. First, the trend toward increased interest in subspecialties (from 18% to 27% over a 5-year period) seen in this recent study[5] may be continuing among med-peds graduates. In fact, it may be the option to subspecialize that has prevented further decreases in the number of students entering med-peds. Second, students may be attracted to med-peds because they are unsure of their ultimate career plans and are currently considering a subspecialty, yet ultimately decide to practice primary care after graduation.

Over the past several years, there has been a decrease in the number of students entering primary care residencies, and among those who do, there has been an increase in the numbers of residents pursuing additional subspecialty training. Although only two Accreditation Council for Graduate Medical Education-approved subspecialties are available to family medicine graduates (geriatric medicine and sports medicine),[15] a wide variety of career options is available to family medicine graduates. These include further training through obstetrics fellowships, preventive medicine residencies, research fellowships, and academic career fellowships, or practice in a number of different settings, including acute care, hospitalist medicine, urgent care, or international health. Whether medical students are aware of these options is unclear and likely varies based on where they went to medical school and a number of other factors. Med-peds residencies also offer a wide variety of options. While obstetrics is not an option, graduates of med-peds programs may enter many of the same kinds of fellowships and have similar practice options as graduates of family medicine programs. An important difference, however, is that residents entering med-peds programs have more than 35 single or combined subspecialty fellowship options available to them upon graduation.[15] Applicants to med-peds programs have cited this ability to subspecialize as one of the main reasons for choosing med-peds over family medicine.[7] While only 22% of med-peds graduates ultimately entered subspecialty training in a recent study,[5] students in their fourth year of medical school may not be ready to make a commitment to primary care by choosing family medicine after less than a year and a half of clinical experience and may choose med-peds as a way to "keep the subspecialty door open."

Physician Underserved Areas

Of interns entering med-peds programs, 41% anticipated practicing in an urban setting, which may include urban underserved areas, and another 19% thought that they would eventually practice in a rural setting. This latter result is similar to the number of graduates actually doing so.[5] These findings suggest that training in med-peds at least does not dissuade those interested in rural medicine from practicing in that setting. However, we cannot ascertain from these data the potential contributions of these physicians in addressing the care of underserved populations.

Limitations

There are some limitations to our results. First, data were collected retrospectively, after the residents had already matched into a residency program and may not reflect the true nuances of the career decision process. In particular, we do not know how many residents came from medical schools that did or did not have good models of family medicine or med-peds or provided students with adequate advising regarding these career choices. In addition, those who have chosen med-peds residencies have already worked through a variety of issues to make their career choice and, in retrospect, may be underestimating their prior interest in other specialties.

Second, the survey design did not allow us to evaluate the specifics of other career options beyond residency (besides practice location and fellowship training). A third limitation is the response rate. Once the survey was initiated, several programs indicated that the survey method used required approval of their local institutional review board. For many of the program directors, this was a significant obstacle to overcome, and some chose not to participate. Despite these obstacles, more than 80% of programs participated, and 87% of residents in those programs returned questionnaires. This is significantly higher than typical response rates for physician surveys.[16] Finally, because the programs reported aggregate data, we could not further explore individual resident characteristics and their impact on career choice.

Conclusions

Med-peds programs have been successful in recruiting residents into training programs that ultimately produce a greater percentage of primary care physicians than either internal medicine or pediatrics programs. Graduates of med-peds programs have a different variety of career options open to them than do family medicine graduates, including subspecialty fellowship in internal medicine, pediatrics, or both. This may be an important factor in medical students' decision making.

Despite these options, a large portion of med-peds interns anticipate entering primary care practice, and a larger portion enter primary care practice after graduation. Our study shows that the vast majority of med-peds residents decided not to pursue family medicine early in their third year and that the effect of med-peds on recruitment to family medicine is small. Taken together, med-peds and family medicine increase both the number of primary care training options for students as well as the number of students entering primary care training. Thus, all of the primary care specialties should work together to increase student interest in primary care in general, rather than to a specific specialty.

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