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Title

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Journal

Dermatology Online Journal, 26(11)

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Publication Date

2020

DOI

10.5070/D32611047367

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Peer reviewed

Health policy literacy among U.S. dermatology residents: characterizing past experiences and future goals

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Abstract

Background: Health policy knowledge is critical in today's healthcare environment; efforts to understand dermatology residents' health policy literacy and education on policy reforms pertaining to dermatology practice are limited.

Methods: A 25-question electronic survey was administered to current U.S. dermatology residents in ACGME-accredited residencies to assess health policy education/experiences, career goals, and familiarity with current issues in health policy and dermatology.

Results: There were 46 respondents of equal gender and training stage distribution. Of these, 67% and 30% reported health policy instruction in medical school and residency, respectively; 17% reported no prior instruction. Additionally, 50% and 31% intended to pursue academic medicine and private practice, respectively. Although most believed dermatology careers to be compatible with non-clinical endeavors (organized medicine leadership, policy reform, political/legislative advocacy, elected office), few intended to pursue such endeavors. Fewer than 50% of respondents reported familiarity with health legislation, reimbursement models, and the American Academy of Dermatology Association's 2018 advocacy priorities.

Conclusions: Although some dermatology residents have prior health policy education and/or receive training in residency, there remain gaps in their knowledge and preparation to face current healthcare issues. Medical schools and residencies should address such gaps and provide health policy opportunities to ensure trainees' future success.

Keywords: health policy, medical education, advocacy, internship, delivery models, financing structures, billing, reimbursement, insurance plans

Introduction

In the changing U.S. health care environment, physicians are required to perform a wider variety of tasks and have a deeper understanding of non-medical topics, such as health policy and healthcare economics. Studies have shown a lack of familiarity with principles in health policy and practice management among residents and recent graduates across a number of medical specialties [1–5], prompting numerous proposals and calls to action to improve health policy education within graduate medical education [6–11]. Although studies have characterized business preparedness among dermatology trainees [12,13], efforts to understand and educate dermatology trainees about health policy reforms pertaining to dermatology practice have not been required or standardized across dermatology residency programs [14–16]. Thus, the goal of this study was to characterize the extent of prior health policy education and experiences among current U.S. dermatology residents, to assess their level of health systems knowledge and health policy literacy, and to characterize desire for further education and future involvement in health policy activities.

Methods

A 25-question electronic survey was distributed to U.S. dermatology residency coordinators, as listed in

Table 1. Respondent demographics and previous health policy education/experience.

| Respondent Demographics and Previous Health Policy Education/Experiences | | |
|--|--------|--------|
| | Number | % |
| Gender | | |
| Female | 22 | 47.83% |
| Male | 24 | 52.17% |
| Training Stage | | |
| PGY2 | 16 | 34.78% |
| PGY3 | 10 | 21.74% |
| PGY4 | 17 | 36.96% |
| Fellow | 1 | 2.17% |
| Other (PGY5) | 2 | 4.35% |
| Previous Health Policy Education | | |
| Undergraduate | 9 | 19.57% |
| Medical school | 31 | 67.39% |
| Internship | 8 | 17.39% |
| Residency | 14 | 30.43% |
| Other (MPH) | 1 | 2.17% |
| Never | 8 | 17.39% |
| Additional Degrees | | |
| MPH | 1 | 2.17% |
| MSc | 2 | 4.35% |
| PhD | 3 | 6.52% |
| Other (MPhil, DPT, certificate in healthcare delivery) | 3 | 6.52% |
| Previous Policy-Related Work Experiences | | |
| Presidential campaign | 1 | 2.17% |
| Internship with Department of Health & Human Services | 2 | 4.35% |

ACGME: Accreditation Council for Graduate Medical Education; IRB: Institutional Review Board; PGY: Post-graduate year

the Accreditation Council for Graduate Medical Education (ACGME) database, to be distributed to current U.S. dermatology residents in three-year ACGME-accredited residency programs. These questions were designed to assess residents' previous health policy education/experiences, future career goals, and familiarity with current issues in health policy/dermatology. Question formats included binary yes-no questions as well as multiple choice questions in which responses were rated across a spectrum of 3-5 choices (including a neutral option). Statistical analyses were completed using Stata/SE 15.1 (StataCorp). The Partners Healthcare Institutional Review Board approved this study.

Results

There were 46 total respondents of approximately equal gender and training stage distribution.

Respondent demographics and previous health policy education and experiences are summarized in **Table 1**. Of the respondents, 67% (31/46) and 30% (14/46) reported formal health policy instruction in medical school and dermatology residency, respectively. No prior health policy instruction was reported in 17% (8/46); 85% (35/41) believed health policy should be formally required in medical education. Three residents reported previous health policy work experiences outside their medical education, one on a presidential campaign and two through internships with the U.S. Department of Health & Human Services.

The frequency of lectures during dermatology residency on health policy-related topics and residents' self-reported confidence level with non-clinical tasks are shown in **Figure 1**. Within their residency curriculums, most residents reported never having received instruction on delivery

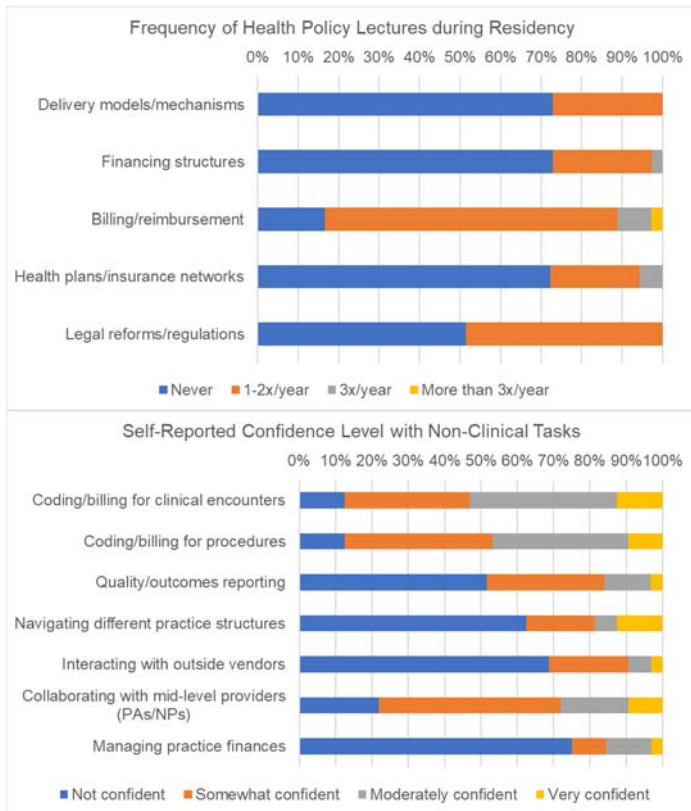


Figure 1. Frequency of lectures in residency on health policy-related topics and self-reported confidence level with non-clinical tasks.

models/mechanisms, financing structures, health plans/insurance networks, or legal reforms. Most residents did report instruction 1-2x/year on billing/reimbursement. Most residents reported being “somewhat confident” or “moderately confident” with both billing/coding for clinical encounters and procedures. Most residents also felt “somewhat confident” or “moderately confident” with collaborating with mid-level providers. However, the majority were “not confident” with quality/outcomes reporting, navigating different practice structures, interacting with vendors, or managing practice finances. Desire for additional training in practice management, health care advocacy, and navigation of insurance networks and payment models featured prominently among residents’ qualitative comments on what they would like added to their curricula to better prepare them for their future careers.

With regard to health policy literacy and knowledge of current issues in healthcare and dermatology,

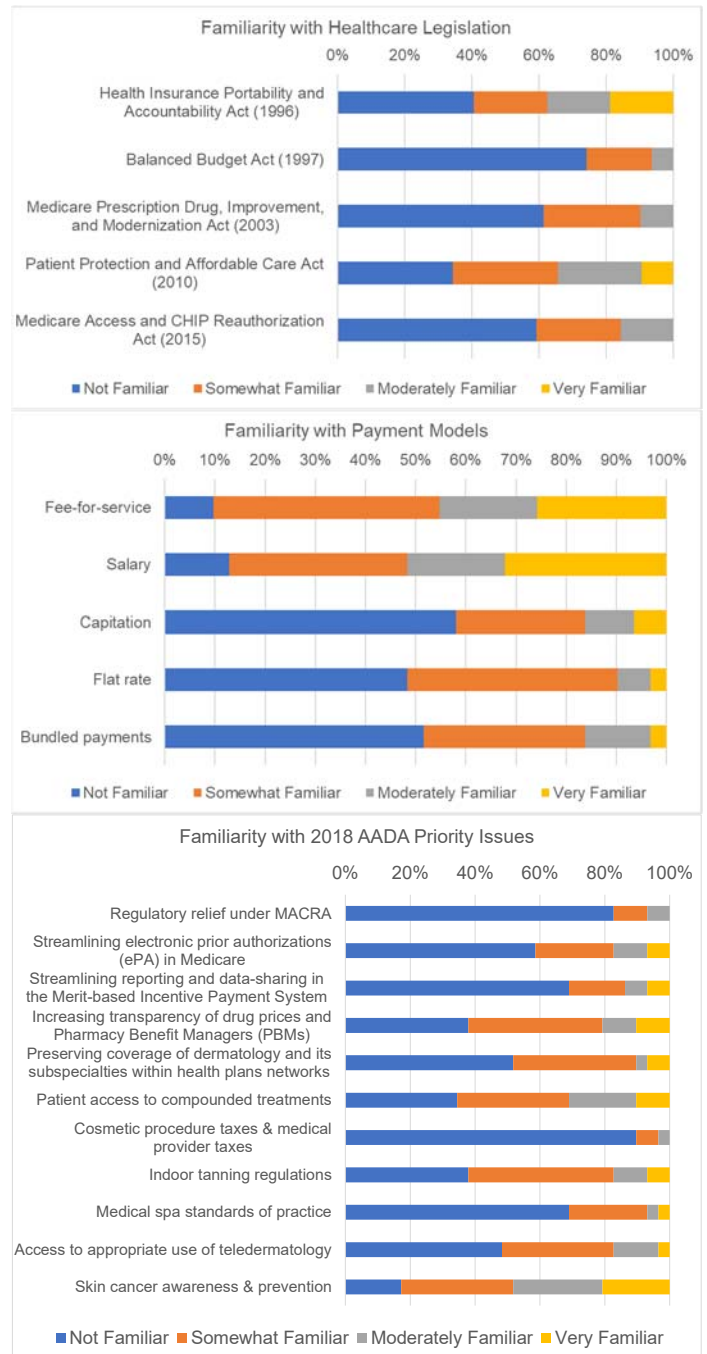


Figure 2. Resident familiarity with key healthcare legislation, payment models, and recent American Academy of Dermatology priority issues.

resident familiarity with key pieces of modern healthcare legislation, payment models, and priority issues identified by the American Academy of Dermatology Association (AADA) for 2018 is shown in **Figure 2**. Fewer than half of residents reported any familiarity with 4/5 key pieces of modern health legislation, 2/5 reimbursement models, and 8/12 of the AADA’s priority advocacy issues for 2018.

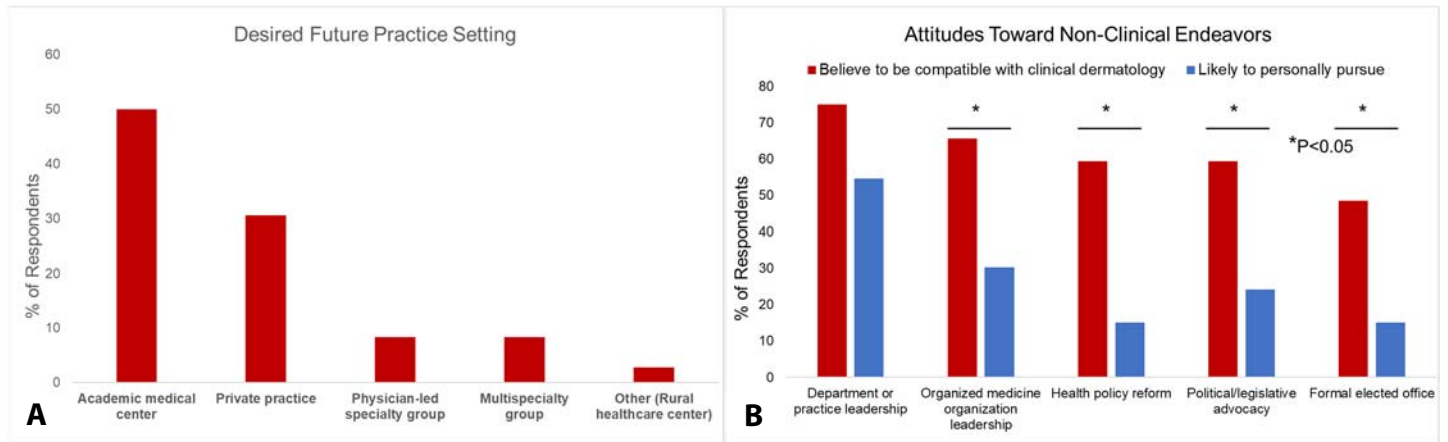


Figure 3. Desired future practice setting and resident attitudes toward non-clinical endeavors.

With regard to future career goals, 50% (18/36) and 31% (11/36) of residents indicated intention to pursue academic medicine and private practice, respectively (**Figure 3A**). The vast majority anticipated taking care of both Medicare and Medicaid patients in their future practice. In addition, 97% (35/36) believed health policy would significantly impact their future careers and 94% (34/36) believed participation in organized medicine would be important for moving the field forward. Nevertheless, although most residents believed that dermatology practice is compatible with non-clinical endeavors such as organized medicine leadership, policy reform, political/legislative advocacy, or elected office, a significantly smaller proportion of residents indicated a likelihood of personally pursuing these endeavors in their future careers ($P<0.05$ for all), (**Figure 3B**).

Discussion

Our study demonstrates that dermatology residents recognize the importance of health policy knowledge and non-medical competencies to their future practice. Although some residents have prior education and work experiences in health policy and receive some training in residency, there remain crucial gaps in dermatology residents' knowledge and preparation to face pressing current issues in health care and take on physician-leader roles in non-traditional policy endeavors and advocacy realms.

Previous studies have found that dermatology residents value advocacy and would appreciate expanded education and opportunities in health policy [14]. Our study provides additional insight into the extent of health policy education and experiences dermatology residents have had both prior to, and during residency. It also identifies the level of resident familiarity with specific legislation, payment models, and issues relevant to dermatology practice. We note particular gaps in dermatology residents' understanding of mechanisms of health care delivery and financing, payment models, and recent legislative changes. Our study also highlights residents' lack of confidence with necessary tasks such as quality/outcomes reporting, managing practice finances, navigating different practice structures, and interacting with product vendors. These represent important avenues for improvement in dermatology residency curricula, within which educational opportunities may take the form of formal lectures and/or elective, enrichment, and research opportunities.

Limitations of this study include unknown response rates and partial characterizations of dermatology residents and dermatology residency programs nationwide, as the views and experiences reflected may not be representative of the entire population of U.S. dermatology residents. Our sample size represents a small proportion of an estimated total 1,279 dermatology residents nationwide, according to data from the National Resident Matching Program on post-graduate year 2 positions filled between the years 2017-2019 [17]. We are unable to

calculate an overall response rate as we were unable to measure how many residency coordinators disseminated the survey and thus how many dermatology residents received this survey. Additionally, the number of unique dermatology residency programs represented amongst respondents of our survey is unknown, as residency programs were not asked in our survey to protect anonymity of the survey respondents and promote honest responses.

Reporting bias and selection bias, in which the more engaged or interested individuals were more likely to complete a voluntary survey, may also play a role in our results. However, the latter suggests that our results may over-capture the current state of engagement and resident knowledge, in which case even more efforts to educate the trainee population are warranted.

In the future, we hope to systematically examine health policy teaching within dermatology residency program curricula nationwide by quantifying frequency of formal lectures on health policy-related topics as well as the extent of elective, enrichment, and research opportunities in health policy provided to dermatology residents. Notably, although the

majority of residents in our study believed health policy/advocacy to be important in their future careers and in moving the field forward—and additionally saw non-clinical endeavors in policy/advocacy as compatible with a clinical career in dermatology—few planned to engage in such endeavors themselves. Future studies are needed to understand reasons for this discrepancy and decrease barriers to involvement.

Conclusion

Dermatology residents recognize the importance of health policy and have varying levels of education and experience in this arena. Gaps remain in their knowledge and preparation to address pressing issues in dermatology and health care and take on physician-leader roles in non-traditional policy and advocacy realms. Medical schools and residencies should take steps to address such gaps and provide additional academic and extracurricular/elective opportunities in health policy to ensure the future success of their trainees.

Potential conflicts of interest

The authors declare no conflicts of interest.

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