Comment on "Analysis of Nail-Related Content of the Basic Dermatology Curriculum"

To the Editor:

In the April 2019 *Cutis* article by John and Lipner,[1] the authors critiqued the American Academy of Dermatology Basic Dermatology Curriculum (BDC) for not providing an adequate scaffolding of nail findings on which dermatology residents can build their knowledge base; however, that criticism belies a misunderstanding of the BDC's purpose. It was carefully designed to address the needs of undifferentiated medical students and primary care learners based on needs assessments from practicing primary care physicians and experienced dermatology educators.[2,3] Given the limited amount of time to teach, a basic curriculum must focus on the most high-yield items. The BDC work group developed goals and objectives based on needs assessments for primary care practice with 38 core dermatology diagnoses, including 3 diagnoses with important nail findings: onychomycosis, melanoma, and psoriasis. Much repetition is built into the BDC, and the same diagnosis is used in multiple cases in different modules to encourage retention of information. Therefore, "analysis of nail-related content" should focus on diagnoses rather than cases, and for each diagnosis, note whether the nail findings are a pertinent negative or pertinent positive. In cases of the other 35 diagnoses covered in the BDC, nail findings are omitted for space because they are not relevant (eg, in cases of seborrheic dermatitis or rosacea). Normal nail findings are not pertinent negatives for most diagnoses in the BDC, except in cases with diagnoses for which psoriasis is in the differential, such as nummular dermatitis or pityriasis rosea.

Furthermore, a true analysis of the needs of medical students and primary care learners with regard to nail findings would begin with a needs assessment of the most common nail conditions evaluated in the primary care and urgent care settings. Ingrown nails, paronychia, onychomycosis, and subungual hematomas and other nail traumas are the most common nail conditions encountered in primary care and urgent care,[4-10] but John and Lipner[1] failed to perform analysis or needs assessment based on the incidence of nail diagnoses in these settings.

Other sources for medical students and primary care residents include excellent introductions to nail findings. The newly revised skin chapter of *Bates' Guide to Physical Examination and History Taking*[11] includes updated photographs of common nail findings and discusses the importance of examining nails in the full-body skin examination. Additionally, *Clinical Dermatology: A Color Guide to Diagnosis and Therapy*,[12] *Lookingbill and Marks' Principles of Dermatology*,[13] and *The Color Atlas and Synopsis of Family Medicine*[14] cover nail disease beautifully for medical students and primary care learners. The BDC was never meant to supplant these bountiful resources.

The authors referred to lack of confidence in nail diagnoses among dermatology residents,[1] which is a very real problem that must be addressed by dermatology residency programs. The BDC is not the proper vehicle for training dermatology residents about these conditions; that is the responsibility and challenge of our dermatology residency programs. The authors also suggested teaching how to perform nail biopsies in the BDC.[1] It not reasonable to expect that our primary care colleagues will be performing nail biopsies. A more appropriate level of expectation is that they would know when to refer patients to dermatology; for example, they should know that a pigmented streak on a single nail that is expanding is an indication for referral to a dermatologist.

If the authors or others were to propose an additional nail module to the BDC work group, they would need to include an analysis of the literature regarding the incidence of nail disease seen in primary care and urgent care settings rather than the nail conditions seen by referral bias experienced by consulting dermatologists. The analysis would be worth considering and worthy of the goodwill engendered by the creation of the BDC in the first place.

Sincerely,

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Dr. McCleskey previously served as Chair of the American Academy of Dermatology Basic Dermatology Curriculum Work Group (2013-2017).

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Author Response

I thank Dr. McCleskey for his interest in our article. Although I acknowledge that the Basic Dermatology Curriculum (BDC) serves as an introduction to dermatology for medical students and primary care physicians, I disagree that the current curriculum should be limited to only 3 diagnoses with important nail findings—onychomycosis, melanoma, and psoriasis—and exclude other common and potentially fatal nail diseases.

To characterize the overall nail burden of ambulatory care visits in the United States, data from the National Ambulatory Medical Care Survey from 2007 to 2016 were analyzed and there were more than 20 million outpatient visits for nail concerns during this period; furthermore, although many patients were seen by dermatologists, a considerable number were seen by pediatricians and general practitioners (Lipner SR, Hancock J, Fleischer AB Jr; unpublished data; July 2019). These findings underscore the importance of educating medical students and primary care physicians on the diagnosis and appropriate referral of patients with nail diseases.

Some limited information on nail unit melanomas is included in the BDC, but it is essential that medical students and general practitioners be educated about early diagnosis of squamous cell carcinomas and melanomas of the nail unit, which may help avoid unnecessary amputations and decrease mortality.[1] Unfortunately, the vast majority of nail unit melanomas are diagnosed at stage II or later, which has been partially attributed to clinical knowledge gaps in the understanding of nail disease.[2]

Several studies have shown that many physicians fail to examine their patients' nails during physical examinations, either due to concealment with nail polish or lack of clinical awareness. In a survey-based study analyzing patients' awareness of longitudinal melanonychia and worrisome signs of nail unit melanoma, only 12% of patients (43/363) stated that their dermatologist or internist specifically asked them about nail changes.[3] Furthermore, in another survey-based study of nail examinations at a free cancer screening by the American Academy of Dermatology, more than half of female participants (47/87 [54%]) stated that they were wearing nail polish at the time of screening.[4,5] Therefore, examinations of the nails were not performed as part of the total-body skin examination.

In summary, nail diseases are an important concern in clinical practice with aesthetic and functional consequences. There is a strong need to emphasize the importance of nail examinations for diagnostic purposes and to incorporate more expansive nail-related content into the BDC, which can result in longer and more functional lives for our patients.

Sincerely,
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The author reports no conflict of interest.

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