



HHS Public Access

Author manuscript

J Am Board Fam Med. Author manuscript; available in PMC 2022 May 20.

Published in final edited form as:

J Am Board Fam Med. 2020 ; 33(6): 1022–1024. doi:10.3122/jabfm.2020.06.200238.

Perspectives on Dermoscopy in the Primary Care Setting

Natalie M. Williams, BS,

Dr. Phillip Frost Department of Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, Miami, FL

Ashfaq A. Marghoob, MD,

Dermatology Service, Memorial Sloan-Kettering Cancer Center, New York, NY

Elizabeth Seiverling, MD,

Division of Dermatology, Maine Medical Center, Portland, ME

Richard Usatine, MD,

Department of Family and Community Medicine, The University of Texas Health Science Center at San Antonio, San Antonio, TX

Darren Tsang, MD, MPH,

Dr. Phillip Frost Department of Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, Miami, FL

Natalia Jaimes, MD

Dr. Phillip Frost Department of Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, Miami, FL; Sylvester Comprehensive Cancer Center, Miami, FL

Abstract

Introduction: Dermoscopy is a noninvasive, in vivo imaging technique that allows for the visualization of subsurface skin structures. In recent years, several education interventions have incorporated dermoscopy in the primary care setting to improve skin cancer detection. We aim to describe the perspectives, attitudes, and interest of primary care physicians (PCPs) regarding dermoscopy.

Methods: PCPs associated with academic institutions completed an anonymous survey emailed to faculty and resident listservs. The survey consisted of 23 questions related to dermoscopy.

Results: A total of 156 PCPs completed the questionnaire. Few PCPs reported having access to a dermatoscope (16%), using it regularly (9%), or having received training (15%). The most common reasons for not using a dermatoscope were the lack of access to the device (85%), followed by the lack of training (76%). However, the majority view dermoscopy as a valuable tool in primary care and are interested in receiving training (87%), particularly with a hands-on approach.

Corresponding author: Natalia Jaimes, MD, Dr. Phillip Frost Department of Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, Dermatology Research Clinic, 1600 NW 10th Ave, RSMB 2023A, Miami, FL 33136, (njaimes@med.miami.edu).

Conflict of interest: None.

Conclusion: Our sample of PCPs in the United States showed that although few use dermoscopy, most perceive it as a useful tool, particularly family medicine physicians. The main reported barriers preventing its use included the lack of training and poor access to dermatoscopes. The vast majority of PCPs in our sample want to be trained in dermoscopy, thereby providing an opportunity for educational initiatives that take into account the barriers and preferred learning strategies.

Keywords

Dermoscopy; Family Physicians; Primary Care Physicians; Primary Health Care; Skin Cancer; Surveys and Questionnaires

Introduction

Primary care physicians (PCPs) play a critical role in health care. PCPs encounter a variety of dermatologic diseases, including skin cancer. As skin cancer continues to be a public health problem, PCPs are imperative to early detection. Several educational interventions provided to PCPs aim to improve skin cancer detection by incorporating dermoscopy.

Dermoscopy is a noninvasive technique that allows for the visualization of subsurface skin structures. Studies have demonstrated improved diagnostic accuracy for skin cancer when used by PCPs.¹ In addition, mastery-learning courses in dermoscopy can improve diagnostic accuracy and increase physician confidence. As only 8% of PCPs in the United States use dermoscopy,² there is opportunity to increase and promote its practice. However, before embarking on dermoscopy training initiatives, it is important to understand the views of PCPs in learning and implementing this tool.

Methods

In this Institutional Review Board-approved study, academic PCPs (family medicine, internal medicine, pediatrics) associated with the University of Miami and Tufts University completed an anonymous survey emailed to faculty and resident listservs. Summary statistics and comparative analyses were performed using Statistical Analysis Software 9.4 (SAS Inc., Cary, NC). Categorical variables were analyzed using a Pearson's χ^2 test and Fisher's exact test. All tests were 2-tailed and $P < .05$ was considered statistically significant.

Results

Overall, 156 PCPs completed the questionnaire (Table 1). Over half of the respondents were residents. Of the participants, 16% reported having access to a dermatoscope, with only 9% regularly using it. Compared with residents, attendings were more likely to have access to a dermatoscope (27% vs 6%, $P = .0008$) and to use it in their clinical practice (17% vs 1%, $P = .0004$). A minority of respondents (15%) had received prior training in dermoscopy, which was significantly associated with both dermatoscope access and use ($P < .0001$).

Although the response rate was low (156/506, 31%), most PCPs view dermoscopy as a valuable tool in primary care, with 76% rating it as at least moderately important (Table 2). The most common reason for not using dermoscopy was the lack of access (85%), followed by lack of training (76%). The majority were interested in receiving dermoscopy training and supported the implementation of courses into their respective residencies. Family medicine physicians were significantly more likely to perceive dermoscopy as valuable ($P < .002$), use dermoscopy ($P = .0008$), receive training ($P = .0008$), and express interest in training ($P = .0364$) compared with other specialties.

When questioned regarding preferred methods of dermoscopy education, the most popular choice was hands-on training (41%) followed by self study (25%) using a textbook or application. Participants suggested an average of 4- to 6-hour courses spanned over 2 to 3 days for hands-on or in-person trainings. For online videos, respondents recommended a 2- to 3-hour course spanned over 3 to 4 sessions.

Discussion

Although not many PCPs use dermoscopy, most perceive it as a useful tool, particularly family medicine physicians. The main barriers preventing its use include the lack of training and access to dermatoscopes. The cost of these devices, which range between \$300 and \$1500, was not commonly reported as a barrier to their implementation in practice. PCPs would prefer hands-on training, which aligns with the preferences of dermatology residents.³ Since clinical trainings may not be feasible for all PCPs, it is important to note that there are several online resources for the identification of skin cancer (that is, <https://dermoscopedia.org/>, Triage Amalgamated Dermoscopic Algorithm [TADA]⁴). Studies evaluating TADA, which offers novice dermoscopists a starting point when approaching lesions of concern, were previously published in this journal.⁵

The major limitation of the study is the low response rate, which may be an indirect representation of the lack of interest but is not unexpected with an anonymous survey sent to the listserv of busy physicians. However, understanding the barriers and preferred learning strategies provides valuable information to guide educational initiatives and increase dermoscopy use among PCPs.

References

1. Secker LJ, Buis PA, Bergman W, Kukutsch NA. Effect of a dermoscopy training course on the accuracy of primary care physicians in diagnosing pigmented lesions. *Acta Derm Venereol* 2017;97:263–5. [PubMed: 27572816]
2. Morris JB, Alfonso SV, Hernandez N, Fernández MI. Examining the factors associated with past and present dermoscopy use among family physicians. *Dermatol Pract Concept* 2017;7:63–70.
3. Chen YA, Rill J, Seiverling EV. Analysis of dermoscopy teaching modalities in United States dermatology residency programs. *Dermatol Pract Concept* 2017;7:38–43. [PubMed: 29085718]
4. Jaimes N, Marghoob AA. Triage amalgamated dermoscopic algorithm. *J Am Acad Dermatol* 2020;82:1551–2. [PubMed: 32045619]
5. Seiverling EV, Ahrns HT, Greene A, et al. Teaching benign skin lesions as a strategy to improve the Triage Amalgamated Dermoscopic Algorithm (TADA). *J Am Board Fam Med* 2019;32:96–102. [PubMed: 30610147]

Table 1.

Participant Demographics and Career Information

Demographics	All No. (%)
All	156
Gender	
Female	98 (62.8)
Male	58 (37.2)
Age, years	
25 to 34	83 (53.2)
35 to 44	30 (19.2)
45 to 54	20 (12.8)
55 to 64	21 (13.5)
65 to 74	2 (1.3)
Specialty	
Family medicine	67 (42.9)
Internal medicine	55 (35.3)
Pediatrics	27 (17.3)
Med/peds	7 (4.5)
Years practiced	
Current resident	81 (51.9)
0 to 4	10 (6.4)
5 to 14	19 (12.2)
15 to 24	24 (15.4)
25 to 34	15 (9.6)
35 to 44	7 (4.5)
Location	
Urban	117 (75.0)
Suburban	33 (21.2)
Rural	6 (3.8)

Table 2.

Participant Perspectives Regarding Dermoscopy

Perspectives on Dermoscopy	All No. (%)
All	156
Dermatoscope access	
No	131 (84.0)
Yes	25 (16.0)
Dermatoscope use	
No	142 (91.0)
Yes	14 (9.0)
Prior dermoscopy training	
No	133 (85.3)
Yes	23 (14.7)
Importance of dermoscopy in primary care	
Extremely important	30 (19.2)
Very important	37 (23.7)
Moderately important	51 (32.7)
Slightly important	30 (19.2)
Not at all important	8 (5.2)
Reasons for not using a dermatoscope *	
Lack of access to a dermatoscope	116 (85.3)
Lack of training	104 (76.5)
Cost of dermatoscope	32 (23.5)
Time constraints	32 (23.5)
Unlikely to have an impact	10 (7.4)
Should PCPs receive dermoscopy training?	
Yes, should be provided during residency (obligatory)	83 (55.0)
Yes, should be given during residency (optional)	48 (31.8)
Yes, once practicing (optional)	13 (8.6)
No	7 (4.6)
Interest in dermoscopy training	
Very interested	104 (68.9)
Somewhat interested	27 (17.9)
Neutral	7 (4.6)
Not very interested	8 (5.3)
Not at all interested	5 (3.3)
Preferred dermoscopy training	
Hands-on training (rotation, observership)	57 (41.3)
Self study using dermoscopy textbook and/or app	34 (25.4)
In-person course (lecture style PowerPoint)	17 (13.6)
Online video (lecture style)	9 (7.2)
Web-based modules with self-paced learning	10 (7.8)

Perspectives on Dermoscopy	All No. (%)
Ideal duration for hands-on training	
Days (mean \pm SD)	3.2 \pm 4.4
Hours (mean \pm SD)	5.4 \pm 5.3
Ideal duration for in-person course	
Days (mean \pm SD)	2.4 \pm 2.6
Hours (mean \pm SD)	4.5 \pm 4.8
Ideal duration for online video	
Sessions (mean \pm SD)	3.3 \pm 3.3
Hours (mean \pm SD)	2.6 \pm 3.2

* Multiple response (e.g. "select all that apply") question.

PCPs, primary care physicians; SD, standard deviation.

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript