Are Family Medicine Residents Trained to Diagnose Dermatologic Disease in Skin of Color?

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Background

- People of color face significant health disparities, including dermatologic disease
- Melanoma is 4x more likely to present stage IV in black patients and mortality is 1.5x higher
- After dermatologists, Family Medicine providers encounter the largest number of skin diseases of any specialty
- There is a lack of medical education when it comes to dermatology in primary care; particularly in managing skin of color
- Many PCPs do not feel adequately trained to manage skin disease

Objectives

- Recognize how gaps in medical education contribute to health disparities
- Identify areas of intervention to expand dermatologic training in FM residency

Methods

- Study design: cross-sectional survey. Includes derm training opinion questions and clinical diagnosis section
- Participants: FM residents in NJ (N= 44). Recruited from the Rutgers Network of affiliated residencies. Data collection through 2/17/2022.
- Data analysis: Descriptive statistics to compare outcomes of interest.

Abbreviations: Skin of color (SOC), Nonmelanoma skin cancer (NMSC), family medicine (FM)

Results

Table 1: Demographics

Demographics	Number of respondents N=44 (%)[a]
Year in training	
PGY1	13 (30%)
PGY2	14 (32%)
PGY3	17 (39%)
Percentage of patients that identify as Caucasian within practice	
0-25%	16 (36%)
26-50%	24 (55%)
51-75%	3 (7%)
75-100%	1 (2%)
Percentage of visits that include a skin related concern	
0-10%	12 (27%)
11-20%	17 (39%)
21-30%	13 (30%)
31-40%	2 (5%)
41-50%	0 (0%)
>50%	0 (0%)
Completed dermatology elective in residency	
Yes	20 (50%)
No	20 (50%)
Training using a dermatoscope	
Yes	8 (18%)
No	36 (82%)
Procedural Experience (types of procedures)[b]	
0	8 (18%)
1	3 (7%)
2	9 (21%)
3	8 (18%)
4	10 (23%)
5	6 (14%)

[a]Numbers may not add up to 100% due to rounding and/or missing data.
[b]Has completed 0-5 types of the following procedures: shave biopsy, skin tag removal, cryotherapy, incision and drainage, intralesional steroid injection.

Figure 1. Accuracy of Clinical Diagnosis

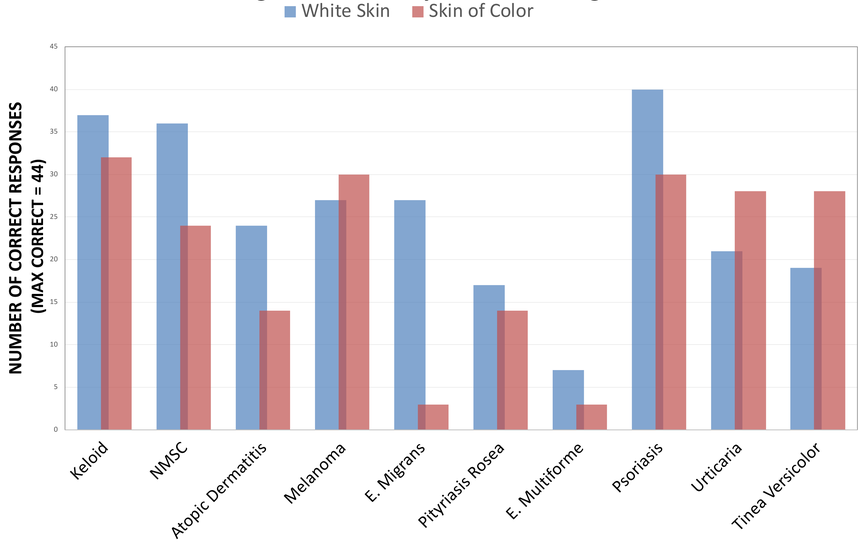
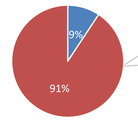


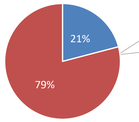
Table 2: Correct Diagnosis

Diagnosis	Total Correct N = 88* (%)	Number correct in white skin	Percent correct in white skin	Number correct in SOC	Percent correct in SOC	Ratio of SOC/white correct	p-value (fisher exact tests)
Keloid	78.41%	37	84%	32	73%	0.86	0.3
NMSC	68.18%	36	82%	24	55%	0.67	0.01
Atopic Dermatitis	43.18%	24	55%	14	32%	0.58	0.05
Melanoma	64.77%	27	61%	30	68%	1.11	0.66
Erythema Migrans	34.09%	27	50%	3	7%	0.11	<0.001
Pityriasis Rosea	35.23%	17	39%	14	32%	0.82	0.66
Erythema Multiforme	11.36%	7	16%	3	7%	0.43	0.31
Psoriasis	79.55%	40	91%	30	68%	0.75	0.02
Urticaria	55.68%	21	43%	28	64%	1.33	0.2
Tinea Versicolor	53.41%	19	48%	28	64%	1.47	0.09

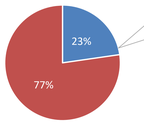
*N is equal to 2 questions for each participant (44)



91% of residents do NOT feel confident <u>diagnosing</u> skin disease



79% of residents do NOT feel confident <u>managing</u> skin disease



77% of residents think <u>more</u> dermatology is needed in didactics

Discussion

- FM residents correctly diagnosed disease more often in white skin compared to SOC. There was a significant difference for NMSC, erythema migrans, and psoriasis
- Most FM residents do not feel trained to manage skin disease
- Difference may be attributed to a lack of medical education in dermatology and specifically in SOC
- Given the population seen by residents in this area is largely patients with SOC, residents must be trained accordingly

Conclusion and Next Steps

- More training is needed in the diagnosis and treatment of SOC
- Programs must focus on a comprehensive and <u>inclusive</u> curriculum
- One way is by including examples of SOC in didactics and/or using online modules which includes SOC

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