## Primary Care Dermatology for Skin of Color

#### MAFP October's Virtual CME Session

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#### **Learning Objectives**

- Examine factors that contribute to skin of color health disparities
- Discuss common dermatological conditions in skin of color
- Identify skin of color educational resources





#### Skin of Color (SOC) Definition

Skin of color refers to a diverse population of racial and ethnic backgrounds, including but **not limited to** those who identify as Black or African American, American Indian or Alaska Native, Asian American, Pacific Islander, Latinx, and Middle Eastern or North African

#### The Fitzpatrick Scale



- Skin color classification based on propensity for photodermatitis
- The scale should not be used as a surrogate marker for race and ethnicity
- Race is a social construct: human-invented classification system
- There are no racial differences in the number of pigment-producing cells (melanocytes)

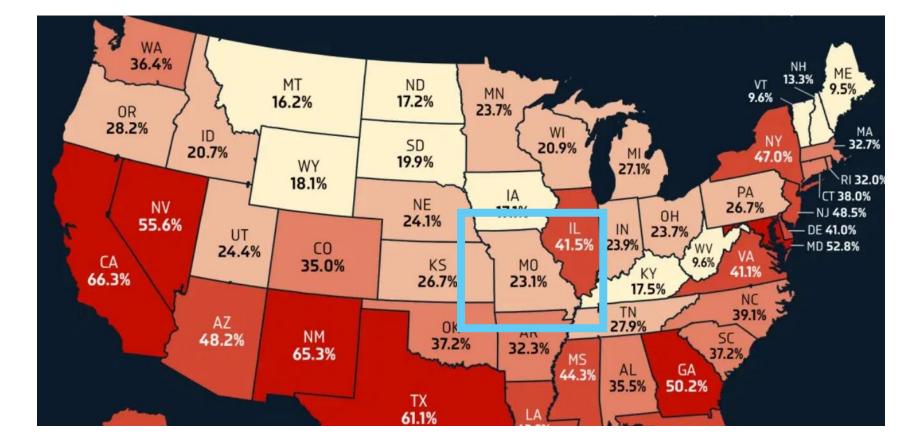
#### Monk Skin Tone Scale



- Dr. Monk created this scale to promote inclusivity
- Goal to improve Al/machine learning applications
- Could help reduce unintended algorithm bias

#### Importance of dermatology education in primary care

- Skin conditions account for 8 12% of all diagnoses seen by family medicine physicians.
- During a 2-year period, 37% of patients will present to their PCP with at least one skin complaint, and 59% of these patients will list a skin concern as their chief complaint.
- Family medicine residents correctly diagnosed 48% of skin conditions compared to 93% by dermatologists.



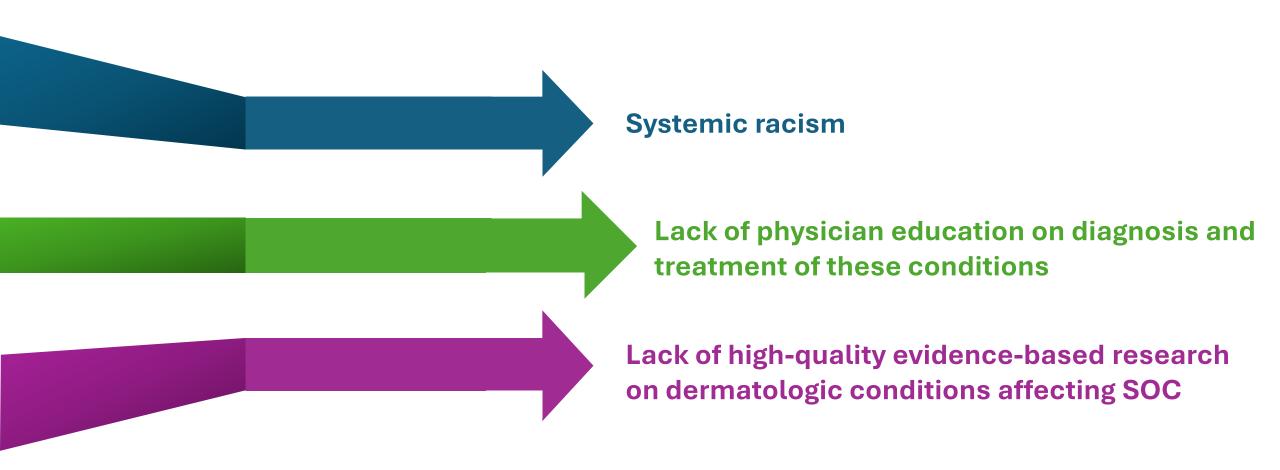
- By 2045, non-Hispanic White people will no longer be the majority population in the US
- SOC already comprise the majority in California, New Mexico, Nevada, Texas, and Georgia

#### Increasing Skin of Color Population

#### Dermatological health disparities are common

- AA patients with atopic dermatitis were less likely to receive desonide, topical calcineurin inhibitors, crisaborale, and dupilumab compared with White patients.<sup>1</sup>
- Latinx patients with acne were less likely to receive tretinoin compared with non-Latinx patients.<sup>1</sup>
- AA patients were less likely to receive biologics for psoriasis compared with White patients.<sup>2</sup>
- Melanoma 5-year survival was 93% in White patients and 73% in AA patients.<sup>3</sup>

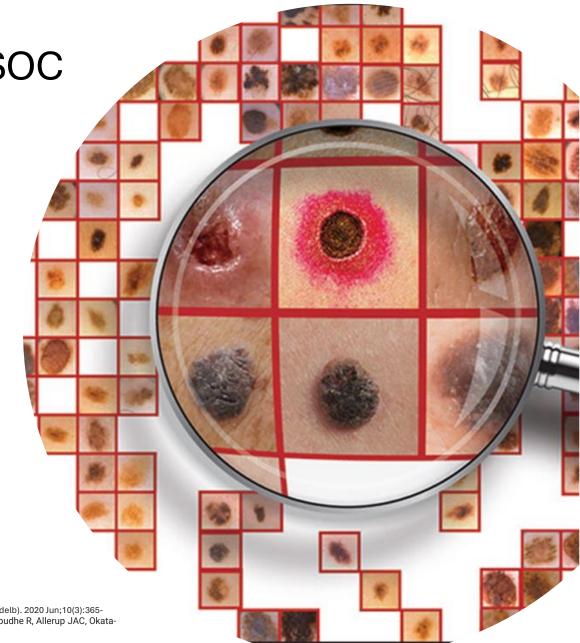
#### Why do these disparities exist?



New diagnostic options still lacking in SOC

- Artificial intelligence algorithms perform worse on lesions in SOC
  - Underrepresentation of SOC in datasets
  - Concerns about models generalizing to SOC





Chan S, Reddy V, Myers B, Thibodeaux Q, Brownstone N, Liao W. Machine Learning in Dermatology: Current Applications, Opportunities, and Limitations. Dermatol Ther (Heidelb). 2020 Jun;10(3):365-386.Daneshjou R, Vodrahalli K, Novoa RA, Jenkins M, Liang W, Rotemberg V, Ko J, Swetter SM, Bailey EE, Gevaert O, Mukherjee P, Phung M, Yekrang K, Fong B, Sahasrabudhe R, Allerup JAC, Okata-Karigane U, Zou J, Chiou AS. Disparities in dermatology Al performance on a diverse, curated clinical image set. Sci Adv. 2022 Aug 12;8(32):eabq6147.

#### Cautionary Slide

- Often dermatological conditions are labeled as "classic"
- Don't just rely on color
- Location, morphology, symptoms are important





#### Rosacea





• Can use diascopy to better visualize telangiectasis in SOC patients

#### **Atopic Dermatitis**





#### Melanoma?

#### Melanoma?

#### Melanoma?







A

B

C







**Talon noir** 

Acral lentiginous melanoma

Melanonychia







Nail diagnoses

- Differential includes subungual melanoma and subungual hematoma
- Hutchinson's sign

#### Acral Lentiginous Melanoma

- AA patients are more likely to present with late-stage disease and higher rates compared to White patients
- Misdiagnosis may contribute to further delay in treatment





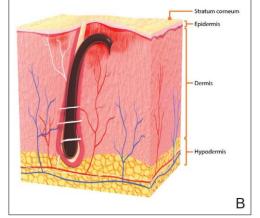
## Common Dermatological Conditions in SOC

- Sarcoidosis
- Atopic dermatitis
- Acne keloidalis nuchae
- Dermatosis papulosa nigra
- Lupus
- Melasma
- Psoriasis
- Vitiligo
- Central cicatricial alopecia

- Pseudofolliculitis barbae
- Traction alopecia
- Keloids
- Hidradenitis suppurativa
- Post-inflammatory hyperpigmentation

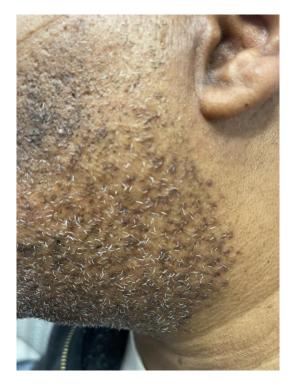


# A



#### Pseudofolliculitis Barbae (PFB)

- Presents with follicular papules or pustules several days after shaving
- Anterior + lateral neck are most affected (any areas with thick coarse hair)
- 45 83% of AA men have PFB



Use a gentle cleanser to cleanse and exfoliate the skin

Apply a warm washcloth to the area for 5-10 minutes

Apply moisturizing shave cream or gel



Rinse the skin

Apply moisturizer

- Electric razors (cut areas more evenly, straight, and not as close)
- Razors with skin guards (reduces tug and pull)
- Don't shave over the same area twice
- Don't pull the skin taut
- Take short strokes
- Apply gentle pressure to the skin
- Don't use razors more than five times

Massage skin in circular manner and repeat 12 hours later

#### PFB Treatment

- Topical low-dose steroids and topical calcineurin inhibitors
- Benzoyl peroxide washes
- Topical diclofenac to reduce inflammation
- Consider chemical depilatories
- Chemical exfoliants: glycolic acid 7%, retinoids
- Laser hair removal is definitive treatment



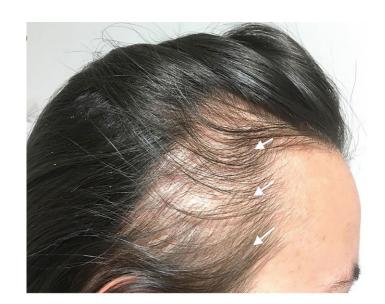
#### **Traction Alopecia**

Prolonged tension on the hair follicle

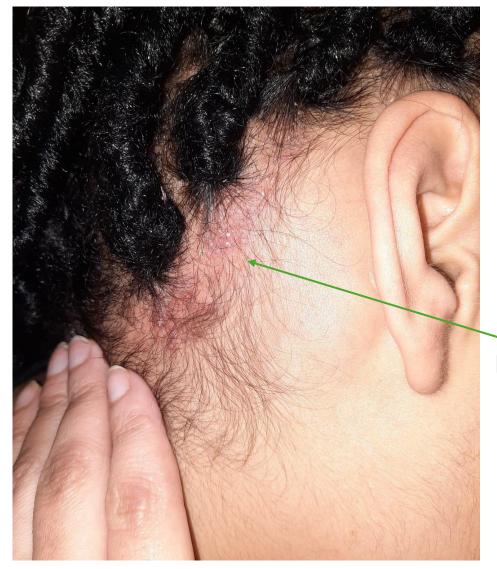
Most obvious around marginal hairline

1/3 AA women have traction hair loss



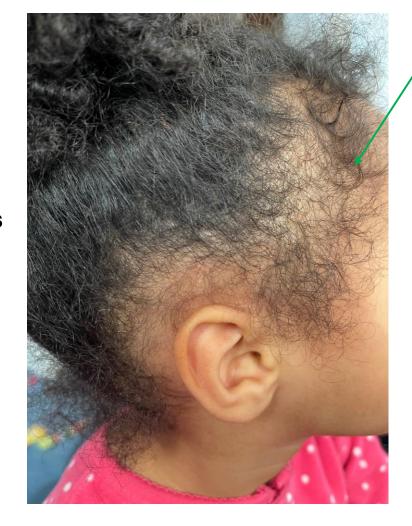






Follicular papules

#### Fringe sign

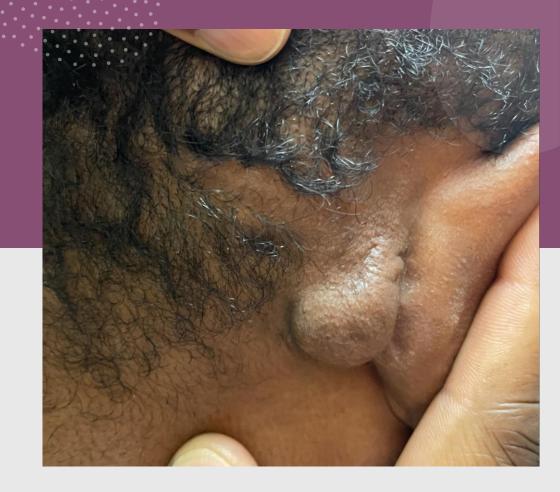


#### Traction Alopecia Treatment

- Minimize\* offending traction
- Minimize long-wear hair gel products that contain alcohol
- Avoid heat around the hair line
- Increase hair moisturization
- Topical or intra-lesional corticosteroids if evidence of inflammation
- Physician-perceived hair loss severity does not correlate with the patient's hair loss severity or its effect on their quality of life

#### Keloids

- Scars that are shiny, thick, fibrous nodules
- SOC patients are 15X more likely to develop keloids
- 80% of patients report pain and itching
- Can take up to 12 months to develop after inciting event
- Keloids are different from hypertrophic scars
- Important to discuss when considering surgical procedures
- Avoid unnecessary surgery (risk-benefit shared decision making)



#### **Keloid Treatment Options**

- Excision, but high rate of recurrence
- Intralesional corticosteroids is treatment mainstay
- Cryosurgery
  - Reserved for small keloids
  - Dyspigmentation side effects
- Pulsed dye laser treatment



#### Hidradenitis Suppurativa (HS)





#### Hidradenitis suppurativa (HS)

- Systemic inflammatory disorder with skin manifestations
- Follicular occlusion disorder causing painful nodules and sinus tracts
- Commonly affects areas where skin touches skin
- Black patients have 2-3X higher incidence than White patients
- Average 7-year delay in diagnosis
- Strong association with tobacco use
- Can drastically affect patient's quality of life

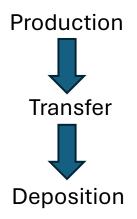
#### Hidradenitis Suppurativa Treatment

- Topical antiseptics (hibliclens, chlorhexidine)
- Topical antibiotics (clindamycin 1% bid X 12 weeks)
- Topical resorcinol 15%
- Intralesional corticosteroid injections
- Doxycycline X 3 months
- Rifampin + clindamycin
- Hormonal therapies if cyclic flares



#### Post Inflammatory Hyperpigmentation (PIH)

- Excessive melanin deposition in the dermal layers
- More pronounced and persistent in SOC
- Common causes include acne, atopic dermatitis, and PFB
- Resolution can take months to years
- Treat the underlying diagnosis **first**









#### PIH Treatment Options

- Hydroquinone 4% (gold standard): 3 6 months maximum
- Retinoids (adapalene, tazarotene, tretinoin): targets all 3 pathways
- Azelaic acid 10 20% (good for acne and rosacea)
- Salicylic acid 10 20%: anti-inflammatory
- Oral tranexamic acid
- Other options: kojic acid, licorice root, Vitamin C, niacinamide, soy
- Dermatology referral: chemical peels, picosecond lasers
- Sunscreen

#### Importance of Sunscreen

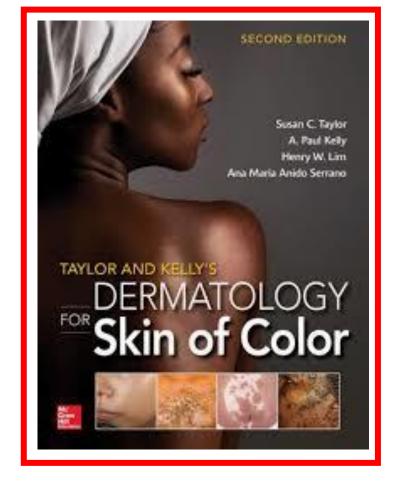
- Especially important for photo exacerbated conditions (melasma and PIH)
- Broad spectrum (UV-A and UV-B) and VL coverage with at least SPF 30+
- Physical or mineral sunscreens can leave a white cast
- Active ingredients: zinc oxide +/- titanium dioxide
- Tinted (iron oxide) sunscreens can minimize the white cast and provide VL protection
- Better for sensitive skin, patients with PIH, patients with acne, and children
- Chemical sunscreens absorb UV rays and converts them into thermal energy
  - Common active ingredients: avobenzone, octinoxate, oxybenzone
  - Easier to apply and does not leave a white cast
  - More water and sweat resistant
  - Chemicals do pass into the bloodstream (we don't know the if there are adverse health effects)

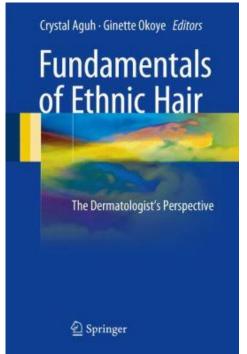


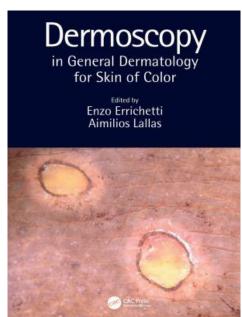
#### **Educational Resources**

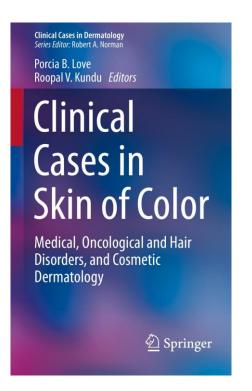
- VisualDx: FM department is working on EHR integration
- American Academy of Dermatology skin of color curriculum

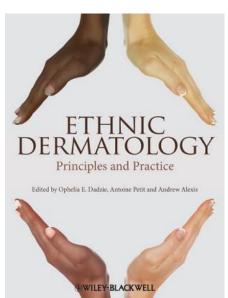
#### Resources

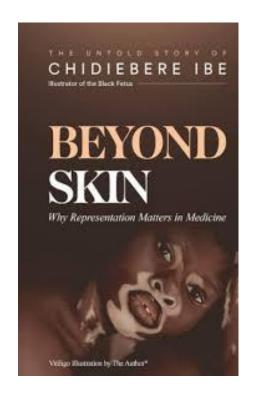


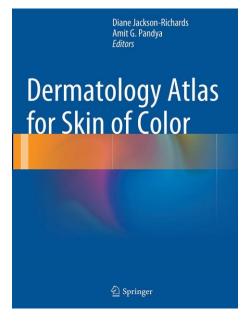












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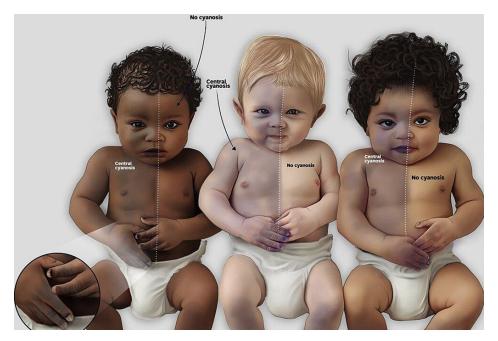


Image credit: Chidiebere Ibe

### Any questions?