Patient Race Affects Dermatologists' Assessment and Treatment of Psoriasis: A Survey Study

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BACKGROUND

- Racial and socioeconomic disparities in treatment of psoriasis have been suggested.
- Specifically, Black patients and those who have a higher out-of-pocket cost for biologic treatments are each ~70% less likely to receive biologics for their psoriasis.
- The contribution of dermatologists' behaviors to disparities in psoriasis treatment remain unknown.

OBJECTIVE

To evaluate whether patient race, gender, or socioeconomic status affect dermatologists' assessments and treatment of psoriasis.

METHODS

Study design: Cross-sectional survey study.

Study sample: Random sample of dermatologists (N= 3,352) who are members of the American Academy of Dermatology and are currently practicing in the United States.

Survey:
- The survey consisted of one of eight possible clinical vignettes that differed only by either patient race (White vs. Black), gender (male vs. female), or socioeconomic status (high vs. low).
- Each vignette described a 50 year-old patient with severe psoriasis and included a headshot of the patient and a clinical photo of psoriasis on the trunk.
- The vignette was followed by questions relating to the study outcomes and physician characteristics.
- Each dermatologist received one of the eight vignettes.

Study outcomes: The level of confidence in psoriasis diagnosis, psoriasis severity, and first-line treatment recommendation.

Statistical analysis: Multivariable logistic regression was conducted to evaluate the associations among vignette patient characteristics and the study outcomes.

ACKNOWLEDGEMENTS

Table 1: Dermatologist Characteristics (N=668)

Characteristic	N (%)
Age (years)	
< 35	75 (11.2)
35 – 44	200 (29.9)
45 – 54	160 (24.0)
55 – 64	136 (20.4)
≥ 65	90 (13.5)
Unknown/Missing	7 (1.1)
Gender	
Male	329 (49.2)
Female	332 (49.7)
Unknown/Missing	7 (1.1)
Race/Ethnicity	
White	492 (73.7)
Black	20 (3.0)
Asian	74 (11.1)
Hispanic	35 (5.2)
Other/Unknown/Missing	47 (7.0)
Practice Setting	
Solo	136 (20.4)
Single specialty, ≤3 physicians	155 (23.2)
Single specialty, >3 physicians	174 (26.1)
Multispecialty	102 (15.3)
Academic	72 (10.8)
Other- VA/military/mixed	25 (3.7)
Missing	4 (0.6)
Practice Community Size	
< 50,000	59 (8.8)
50,000 - 99,999	94 (14.1)
100,000 - 249,999	132 (19.8)
250,000 - 499,999	87 (13.0)
500,000+	279 (41.8)
Missing	17 (2.5)
Practice Region	
Northeast	157 (23.5)
Midwest	107 (16.0)
South	243 (36.4)
West	142 (21.3)
Other	5 (0.8)
Missing	14 (2.1)
Total Psoriasis Patients in Average Week	
None	22 (3.3)
1 to 10	328 (49.1)
11 to 20	231 (34.6)
≥ 21	84 (12.6)
Missing	3 (0.5)
Access to Phototherapy in Clinic	
Yes	384 (57.5)
No	281 (42.1)
Missing	3 (0.5)
Specialty	
General medical/ Hospital dermatology	579 (86.7)
Surgical dermatology	52 (7.8)
Dermatopathology	6 (0.9)
Pediatric/ Cosmetic dermatology	28 (4.2)
Missing	3 (0.5)

Confidence in Diagnosis: Dermatologists are less confident diagnosing psoriasis among patients with darker skin than among patients with lighter skin.

Treatment: Lack of confidence in the psoriasis diagnosis is associated with 67% lower odds of a dermatologist prescribing appropriate therapy for severe psoriasis.

Conclusions: Dermatologists' lack of confidence in diagnosing psoriasis in darker skin may contribute to racial disparities in psoriasis treatment whereby Black patients with severe psoriasis are undertreated.

Table 2: Confidence in Psoriasis Diagnosis by Patient Race

Patient Race	Confident in psoriasis diagnosis*	
	N (%)	OR (95% CI)
White	314 (96.6)	[Reference]
Black	279 (82.3)	0.15 (0.08-0.29)

- Adjusted for participant age, gender, race, practice setting, residency training region

Table 3: First Line Treatment by Dermatologists' Confidence in Psoriasis Diagnosis

Confidence in psoriasis diagnosis	Treatment with Phototherapy, Oral Systemic, or Biologic[n]	
	N (%)	OR (95% CI)
Confident	524 (88.4)	[Reference]
Not confident	51 (71.8)	0.33 (0.16-0.66)

[n] Adjusted for dermatologist age, gender, race, specialty, total patients seen in average week, access to phototherapy in clinic, residency completion year, number of years in practice post-residency and their assessment of psoriasis severity