

Accuracy and Confidence Among New First-year Dermatology Residents in the Diagnosis of Common Dermatologic Conditions in Different Fitzpatrick Skin Types

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Synopsis and Objective

- Minority groups associated with darker Fitzpatrick skin types are disproportionately affected by disparities in dermatologic care¹⁻²
- Dermatologic conditions in darker skin types are underrepresented in many training resources³⁻⁴
- Previous studies have queried medical students' recognition of skin conditions in different skin types⁵, but no similar studies have been published evaluating the abilities or comfort level of dermatology residents
- The purpose of this study was to identify differences in the accuracy and confidence of new dermatology residents in diagnosing common dermatologic conditions in different Fitzpatrick skin types

Methods

- Distributed an online survey to new first-year dermatology residents at US ACGME-accredited dermatology programs
- Participants were shown 20 photographs of common dermatologic conditions in patients of varying Fitzpatrick skin types
- For each image, participants selected a diagnosis from a drop-down menu and rated their confidence in each diagnosis from 1 ("Not Confident at All") to 5 ("Very Confident")
- Participants also reported their confidence in diagnosing common dermatologic conditions in different Fitzpatrick skin types in a pre- and post-survey questionnaire.
- Survey data were analyzed using descriptive statistics, unpaired t-tests, one-way analysis of variance tests, pairwise correlation tests, and Wilcoxon matched-pairs signed-rank tests
- Fifty first-year dermatology residents (10% response rate) completed the survey.

Results

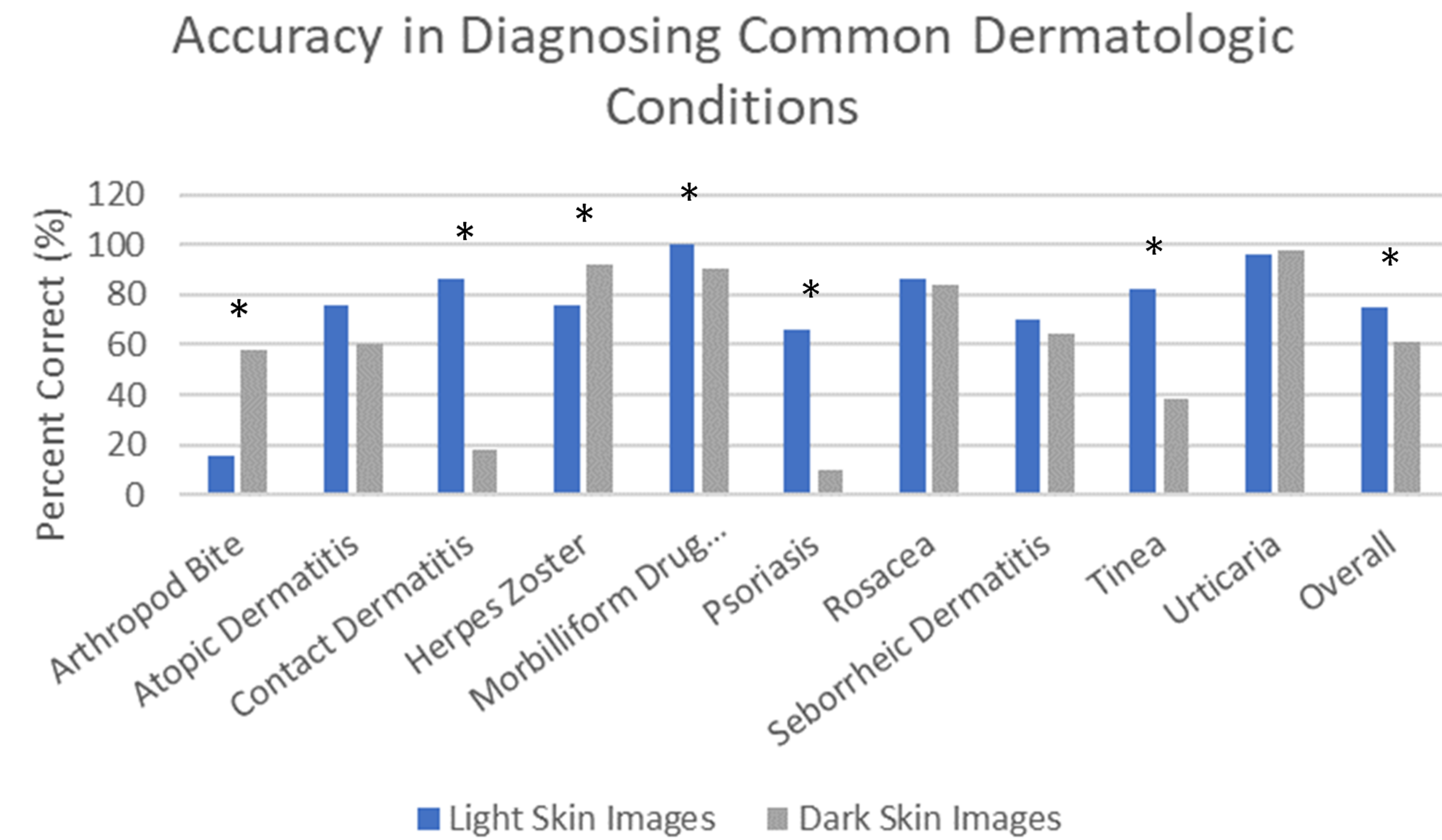
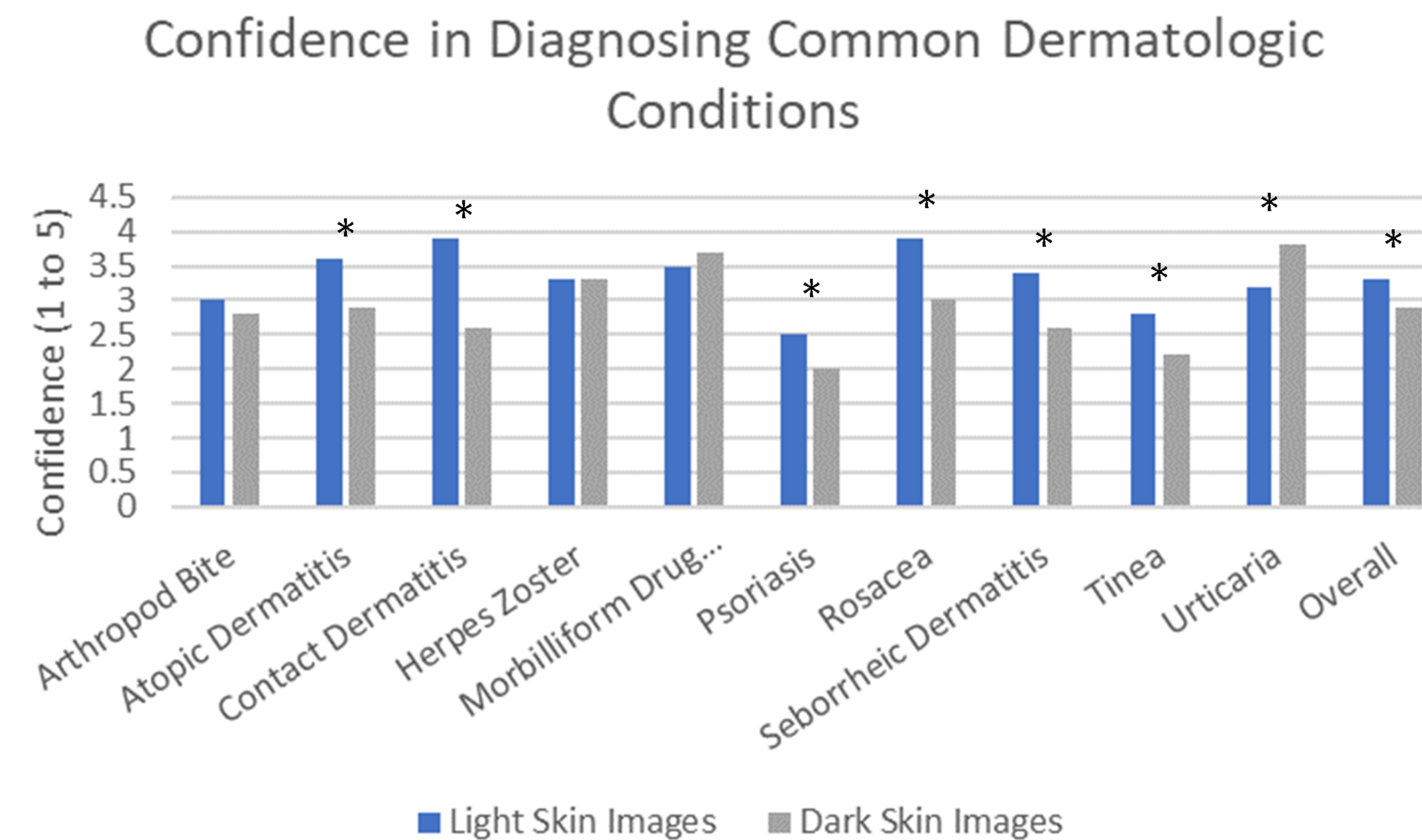


Figure 1 (left). Accuracy of incoming dermatology residents in diagnosing common dermatologic conditions

Figure 2 (right). Confidence of incoming dermatology residents in diagnosing common dermatologic conditions^a



* Signifies significant difference (P<0.05)

^a Confidence was scored on a scale of 1 ("Not Confident at All") to 5 ("Very Confident")

Limitations

- The small sample size may have skewed the results
 - Response rate was limited by voluntary participation
 - Survey was closed at the end of the first month of training to reduce confounding from inter-program differences
- The number of common skin conditions in the survey was limited out of consideration for the time
 - Survey did not fully represent the spectrum or prevalence of skin conditions seen in the practice of dermatology

Conclusions

- New dermatology residents diagnose common dermatologic conditions in darker skin with less accuracy and confidence than in lighter skin
- There is a lack of statistical significance with participants' demographics and background characteristics
 - Differences identified in diagnostic accuracy and confidence may stem from a systemic deficiency in skin of color education rather than individual backgrounds

References

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