Skin of color underrepresented in AI programs in dermatology

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Challenges relating to artificial intelligence (AI) in dermatology and its application to skin of color (SOC) are partly due to underrepresentation of SOC in datasets, according to research published online March 6 in the *International Journal of Dermatology*.

Rebecca Fliorent, from the Rowan-Virtua School of Osteopathic Medicine in Stratford, New Jersey, and colleagues analyzed recent literature to assess current AI programs in use for dermatologic purposes to identify challenges with application of this technology to SOC. Literature from the last 10 years through October 2023 was analyzed.

The researchers note that challenges relating to AI and its application to SOC come from the underrepresentation of SOC in datasets, as well as issues with quality and standardization of images. Current AI programs are worse at identifying lesions in SOC because of these issues. Furthermore, only 30 percent of the programs identified in the literature reported on their use in dermatology, specifically in SOC. For an accurate depiction of darker skin tone images in datasets, significant development of these applications is needed.

"Although the mentioned AI programs do not constitute a comprehensive list, many of these programs show promise in supporting clinical decision-making; however, they require modification to become reliable diagnostic aids for SOC patients," the authors write.

More information: Rebecca Fliorent et al, Artificial intelligence in dermatology: advancements and challenges in skin of color, *International Journal of Dermatology* (2024). DOI: 10.1111/ijd.17076