



# Health Disparities and Skin Cancer In People of Color



Skin cancer diagnosis and treatment may be delayed in people of color, contributing to poor prognosis.

**BY EKENE EZENWA, BS AND KESHA BUSTER, MD, FAAD**

**>>** People of color (POC) is a phrase commonly used in the United States to refer to ethnic and racial minorities. Dermatologic literature highlights health disparities in POC across a number of diagnoses, notably including skin cancer.<sup>1,2</sup> While POC have a wide range of backgrounds, they most often have Fitzpatrick skin types III to VI.<sup>1</sup> As the US population continues to transform, with projections of non-whites being the majority by 2060,<sup>1,3</sup> it is imperative for dermatologists to understand potential disparities that affect patient presentation, management, and outcomes in POC.

Most research in skin cancer has been in whites, and completing research in POC has been a long-standing challenge within the dermatologic community.<sup>4,5</sup> Without this knowledge and research, racial disparities in skin cancer mortality will likely remain unchanged. In this article, we will present a brief overview of the problem of disparities in skin cancer, known and hypothesized causes of such disparities, and potential strategies to overcome them.

## THE PROBLEM OF SKIN CANCER IN POC

Nonmelanoma skin cancer (NMSC) is the most common malignancy in the United States, and incidence continues to rise.<sup>6</sup> While basal cell carcinoma (BCC) is the most common type of NMSC in whites, Hispanics, and certain Asian populations (Chinese and Japanese), squamous cell carcinoma (SCC) is most common in blacks and Asian Indians.<sup>7</sup> Melanoma incidence is estimated to be 45.8 in whites, 6.8 in Hispanics, 5.72 in Asian Americans, Native Americans, and Pacific Islanders (AANAPI), and 1.35 in blacks per 100,000 persons.<sup>8</sup> Though incidence of skin cancer is low amongst POC, disproportionately higher rates of morbidity and mortality are seen in these groups.<sup>7,9-13</sup> SCC, for example, most commonly develops within chronic scars in blacks and has a 20-40 percent metastasis rate and greater mortality compared to the typical rate of one to four

percent in solar-induced SCC in whites.<sup>14-16</sup> All minority groups tend to have a worse melanoma prognosis, but the greatest discrepancy has been observed in blacks, with this group being four times more likely to present with stage IV disease and 1.5 times more likely to die from melanoma than whites.<sup>17</sup> This all-cause mortality rate remains even after adjusting for age, gender, stage, decade of diagnosis, and treatment.<sup>11,12</sup>

As with most health disparities, dermatologic disparities in POC have multiple contributing factors, including patient education and perception, physician perceptions, and access to care. The lower incidence of skin cancer in people of color may dually serve as a strength as well as an Achilles heel. Patients with lower risk of skin cancer understandably are less likely to perceive themselves as at risk for it<sup>18</sup> and thus are less likely to institute preventive

As with most health disparities, dermatologic disparities in POC have multiple contributing factors, including patient education and perception, physician perceptions, and access to care. The lower incidence of skin cancer in people of color may dually serve as a strength as well as an Achilles heel. Variability in clinical appearance of skin cancer in POC is common and may contribute to the increased rates of morbidity and mortality in this population.

Education is key to reduce health disparities in POC. Direct education of POC has been shown to be an effective method to increase knowledge and awareness of skin cancer. Education of primary care colleagues and inclusion of POC in medical research and in dermatology careers can also help.

the**bottom**line

measures. A recent study of black and Hispanic young adults found that they were less likely than whites to practice sun safety habits due to lack of family history of skin cancer, limited discussions on skin safety, and a rare history of sunburns.<sup>10</sup>

Misperceptions about skin cancer are more common in groups with poorer skin cancer outcomes, including POC. An analysis of the Health Information National Trends Survey indicated that blacks were less likely to believe that skin cancer is caused by lifestyle,<sup>18</sup> yet we know that ultraviolet radiation exposure is the greatest risk factor for BCC in all skin types.<sup>7</sup> Both blacks and Hispanics were also found to be more likely to believe that skin cancer is preceded by pain or other symptoms and that there is not much one can do to lower the risk of skin cancer.<sup>18</sup> Such misperceptions indicate inadequate knowledge of the important role of lifestyle choices in skin cancer risk reduction and prevention.

Differing locations of NMSC in POC could also play a role in skin cancer disparities. While fairer skin tones tend to develop SCC in heavily sun-exposed areas, SCC is found more frequently in non-exposed skin in POC—such as lower extremity and anogenital regions—at a rate estimated to be 8.5 times greater than whites.<sup>9,13</sup> Melanoma develops at an increased frequency in the lower extremities and the plantar foot in POC.<sup>8,9,19</sup> These are areas that people often do not notice on themselves, and POC are less likely to perform self-skin exams.<sup>20</sup> Such factors likely contribute to delayed presentation and poorer outcomes.

It is not just patient perceptions, but those of dermatologists, other physicians, and non-physician clinicians that can affect skin cancer disparities. We tend to expect classic presentations, but variability in clinical appearance of skin cancer in POC is common<sup>9,21,22</sup> and may contribute to the increased rates of morbidity and mortality in this population. For example, we commonly see BCC as a translucent, solitary nodule with central ulceration.<sup>22</sup> However, more than 50 percent of BCCs in POC present with increased pigmentation, potentially masking translucency and the visibility of telangiectasias.<sup>7</sup> This has been described as the “black pearly” appearance in Asians.<sup>13,23,24</sup> SCC in POC has a wide range of clinical presentations including non-healing ulcer, scaly plaques, nodules, granulomatous lesions, verrucous papules and plaque.<sup>23</sup> Acral lentiginous melanoma (ALM) can resemble a traumatic injury or fungal infection.<sup>25</sup> Different presentation can increase the likelihood of skin cancers being diagnosed as more common benign lesions, such as seborrheic keratoses, leading to delayed treatment.

Though limited access to care is thought to play a role

## Educate Patients

- People of color are at risk for developing skin cancer.
- Practice sun-protective behaviors.
- Perform monthly self-skin examinations for those with multiple nevi, or history of skin cancers.
- Avoid tanning salons.
- Obtain regular skin examination by a dermatologist
- Perform a thorough skin examination including areas infrequently exposed to the sun, such as palms, soles, oral mucosa, groin, and perianal area. Regularly ask patients to remove shoes and socks for skin examination.
- Monitor changes in pigmented lesions, including those of mucosal, palmar, plantar, interdigital spaces, and subungual surfaces.
- Advise vitamin D supplementation as indicated.

PCPs should refer to dermatologists or patients should seek dermatologic evaluation of:

- Changing pigmented lesions.
- Nonhealing ulcers.
- Hyperkeratotic or poorly healing lesions in chronic lesions such as those of discoid lupus erythematosus, or in scars.
- Atypical appearing keloidal plaques or those with growth/development with no history of trauma.

in skin cancer disparities in POC, there is limited research on this topic. We know that overall there is decreased access to dermatologic care due to the shortage of dermatologists (overall and dermatologists of color), unequal geographic distribution of dermatologists, insurance limitations, and other factors.<sup>26,27</sup> Given the shortage of dermatologists, it is no surprise that, according to the Medical Expenditure Panel Survey, 60 percent of skin conditions seen over the study period were diagnosed by primary care physicians or non-physician clinicians.<sup>20</sup> The same survey also found it significantly less likely for blacks and Asians to see a dermatologist compared to whites. A 2018 study showed that in patients with dermatologic conditions, whites were twice as likely to visit an outpatient dermatologist as blacks and Hispanics.<sup>28</sup> Non-white race was recently identified as an independent risk factor for delay in melanoma excision surgery of six weeks or longer.<sup>29</sup>



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However, patients diagnosed or treated by a dermatologist were less likely to experience such a delay.

### REDUCING DISPARITIES

So what can we do to reduce health disparities in POC? **Education is Key.** Direct education (e.g., focus groups,

## Skin Cancer By The Numbers

**20-40%** Metastasis rate for SCC in POC, compared to 1-4% in solar-induced SCC in whites

**4x** Increased likelihood that blacks will present with stage IV melanoma compared to whites

**1.5x** Increased likelihood that blacks will die from melanoma, compared to whites

**8.5x** Increased estimated rate at which SCC are found on non-exposed skin—such as lower extremity and anogenital regions—in POC, compared to whites

**50%+** BCCs in POC present with increased pigmentation, potentially masking translucency and the visibility of telangiectasias.

pamphlets, lectures, videos) of POC has been shown to be an effective method to increase knowledge and awareness of skin cancer.<sup>30</sup> Education positively correlates with increased skin cancer screening.<sup>31</sup> Screenings and secondary prevention significantly increase diagnosis of thin melanomas and decrease that of thick melanomas.<sup>32</sup> Melanoma education also parallels with self-skin exam performance.<sup>33</sup>

Knowing that we may see a comparatively smaller amount of POC compared to our primary care colleagues, efforts to increase non-dermatologists' awareness of skin cancer in POC are warranted. The American Academy of Dermatology (AAD) recently identified a number of recommendations for physicians regarding skin cancer prevention in POC.<sup>23</sup>

Another approach is identifying and utilizing local resources for increased outreach directly to POC. For example, dermatology researchers trained community health workers in Miami who then educated underserved Hispanic communities on primary skin cancer prevention.<sup>34</sup>

The involvement of POC in continued scientific and clinical research may also decrease the health disparities gap. US history and treatment of minorities in science has caused traditionally minimal involvement of POC in research and this is true in the field of dermatology as well.<sup>4</sup> A recent five-year retrospective analysis showed the 74.4 percent of dermatology research subjects were reported as white.<sup>5</sup> Community engagement strategies (forming outreach teams, using cultural competency, developing

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relationships with the community, etc.) have been suggested to increase research participation.<sup>35,36</sup>

Increasing POC in the dermatology workforce is another proposed strategy for increasing dermatologic access and reduced disparities for POC. An increase of physicians of color encourages more equitable patient-physician relations and patient perceived support from their physician, as racial concordance plays a role in these views.<sup>37</sup> The AAD has undertaken a number of strategies to recruit underrepresented minorities (blacks, Hispanics, and Native Americans) into the field of dermatology.<sup>27</sup> As dermatologists, we can contribute to the effort of increasing awareness of our field through mentorship and involvement with local pre-medical students and medical dermatology interest groups. We can also partner with organizations specifically geared to students of color, like the Student National Medical Association and its local chapters, to increase exposure to the field. Such calls to action will bring us closer to a workforce better representing our continually diversifying nation. ■

*The authors have no relevant conflicts of interest.*

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