Skin Cancer Awareness Among 1 271 Black Africans in South Africa

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ABSTRACT

Little is known about levels of awareness and perceptions of skin cancer among Africans living in Africa. This study assessed skin cancer awareness among 1 271 deeply-pigmented South Africans. Participants (n = 642 males vs n = 629 females) were aware of skin cancer (79%) with more females than males being aware of skin cancer (p = 0.02). Majority of all participants had never checked their skin for signs or symptoms of skin cancer (90%). Palms of hands and soles of feet were the least recognised anatomic sites for skin cancer development, despite these sites being the common sites for acral lentiginous melanoma in individuals with deeply-pigmented skin. Results suggest a need for targeted skin cancer awareness among population groups with dark skin on identification, screening, and early detection, professional training for healthcare personnel and content on skin cancer in deeply-pigmented skin in medical curricula.

INTRODUCTION

While the incidence of skin cancer among people with deeply-pigmented skin is relatively low, the 5-year survival rate after diagnosis is poor.[1,2] Late presentation, low levels of awareness of skin cancer symptoms and anatomical sites of occurrence as well as poor understanding of related risk factors exist in such population groups.[3,4] This study assessed levels of awareness and perceptions of skin cancer among urban and rural Africans with deeply-pigmented skin who self-identified as socio-demographically 'Black South African'.

MATERIALS AND METHODS

Participants (N = 1 271) were enrolled in the Nielson OMNIBUS study conducted quarterly throughout South Africa which recently included nine questions on skin cancer awareness in the

survey administered from March 4 to 25, 2019. The University of Pretoria Ethics Committee approved the protocol (Ethics Approval NAS323/2019).

All participants provided consent and answered a short questionnaire in which they self-identified their population group, age, gender and socio-economic status (SES). A chi-square goodness of fit tested whether the observed proportions for a categorical variable differed from hypothesized proportions. Associations were deemed statically significant if p-values were <0.05. Commercially-available statistical software (STATA, v.15; StataCorp) was used for analyses.

RESULTS

Participants (642 males vs 629 females) were aware of skin cancer (79%) with more females than males being aware of skin cancer ($p = 0.02$). Majority of all participants had never checked their skin for signs or symptoms of skin cancer (90%). Moles (32%), freckles (20%), scars (14%) and wounds (12%) were identified as signs of skin cancer. For the question, 'Have you or anyone you know ever been diagnosed with skin cancer', 13% said yes.

Respondents recognised White individuals as most at risk of developing skin cancer (66%) compared to the risk for Black participants (22%). Sun exposure was considered the main risk factor (81%) followed by genetic history (8%), 'what you eat' (4%), chemical exposure (3%), burns (2%) and scarring (2%). Palms of hands and soles of feet were the least recognised sites (Table 1) for skin cancer development.

Table 1. Black African participants' perceptions of the body sites on which skin cancer may develop ranked by frequency of anatomic sites mentioned by participants.

Anatomic site	**Frequency (n)**	**Percentage (%)**
Head	355	30
Arms	380	32
Middle	106	9
Torso	95	8
Legs	91	8
Hands	40	3
Feet	27	2
Soles of feet	6	1
Back	13	1
Palms of hands	4	0.5
Other sites[#]	*58*	*5*

Note. [#]*The names of the other sites were not captured in the questionnaire.*

DISCUSSION

Lack of early detection and understanding that skin cancer can affect people with pigmented skin may be the reason why individuals with darker skin often present advanced stages of skin cancer. Additionally, the risk associated with past physical skin injuries (such as burns and scarring) as potential development sites for skin cancer is not well known, as skin cancer is commonly perceived to be associated with UVR exposure to skin surfaces exposed to sunlight even among people with deeply-pigmented skin.

Palms of hands and soles of feet were recognized as least likely to represent areas for skin cancer development and this despite being the anatomic sites upon which acral lentiginous melanomas mostly occur in Black Africans.[2,3] It is emphasized that skin cancer is not only

caused by solar UVR exposure, and that skin cancer can affect Black Africans on anatomic sites never exposed to sunlight. Additional questions could have been included in the survey, such as individuals' own assessment of their history of sun exposure and awareness of their risk of skin cancer.

CONCLUSION

There is a need for targeted skin cancer awareness campaigns for Black Africans. Successful campaigns should include systematic and easy-to-understand tips on how to identify and screen potentially dangerous skin changes, with emphasis placed on easily overlooked spots. Early detection is key in preventing the onset of skin cancer. Healthcare professionals should be trained to help raise individual awareness of skin cancer incidence in Black Africans and how this can be prevented.

In the largest sample of Black Africans in Africa questioned about skin cancer awareness, results suggest a need for targeted skin cancer awareness on identification, screening, and early detection as well as professional training. These results can shape public education awareness materials, for example, that emphasize the need to check soles and palms, and build on medical curriculum content by including more text related to skin cancer in deeply-pigmented skin.

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