

Dermatologic Screening in an Elderly Community with Low Socioeconomic Status in Singapore

Dear Editor,

The elderly population is predisposed to a myriad of skin conditions such as xerosis and malignancy. The World Health Organisation (WHO) has defined elderly as those above age 50.¹ In Singapore, 1,266,998 people (18.5% of the population) were above the age of 50 in 2014.² Of which, 3.2% stay in 1- and 2-room flats including rental flats. The Singapore public rental policy indicates that individuals can qualify for rental flats if their monthly income is less than 1500 SGD and they have no child who is able to provide accommodation.³ Little is known about the dermatologic health of the elderly community with low socioeconomic status (SES) living in rental flats. Therefore, dermatologic screening was performed on this vulnerable group by 3 dermatology nurses to unravel the unmet needs.

Materials and Methods

Skin assessment was conducted by dermatology nurse clinicians from the Singapore National Skin Centre (NSC) on 7 November 2014. The elderly—who live in rental flats in the Bedok estate—are largely activities of daily living (ADL)-independent. This was an event conducted with the Thye Hua Kwan (THK) Radiance Senior Activity Centre (SAC) at Bedok. All elderly residents aged 50 and above were invited for the screening session.

The data collected included patient demographics and nurse-clinician assessment of general appearance, skin, hair and nail conditions. Data was analysed using Stata 13. Descriptive statistics was used to describe the participants' profile and clinical data.

Results

Thirty-three individuals participated in the skin assessment. The age ranged from 58 to 90, with a mean of 77.00 (7.52). Most of the elderly who participated were females (n = 26, 78.79%). Of the 33 elderly, 7 (21.2%) were identified as requiring follow-up care with a medical practitioner (Table 1).

Xeroderma

The most common skin problem faced by the elderly

was xeroderma—25 (75.76%) were clinically assessed as having abnormally dry skin. Xeroderma was significantly associated with age. Elderly with xeroderma (mean: 78.45; SD = 5.93) were older than those without xeroderma (mean = 72.13; SD = 10.12; T = -2.23, P = 0.03).

Pigmented Lesions

Pigmented lesions were found to be the next most common skin problem. Twenty-two (66.67%) had pigmented lesions on the upper limbs, 4 (12.12%) on the lower limbs, and 1 (3.03%) on the trunk.

Discussion

This dermatologic screening offers a glimpse into the skin condition of the Singapore elderly population with a low SES. As expected, it highlights a lack in dermatological care as demonstrated by a significant percentage (21%) assessed to be requiring a review by medical practitioner. However, no prior screening programme exists. The socioeconomic and education barrier can result in decreased access to healthcare and self-care behaviour. In those above 65, nearly 8 in 10 elderly had below secondary qualifications in Singapore.¹

Xeroderma was the most common skin condition encountered. Skin barrier functions are impaired with decreased stratum corneum hydration, sebum production

Table 1. Patients with Conditions that Require Further Evaluation by Medical Practitioners

Patient No.	Age	Gender	Skin Disease
1	63	Male	Pedunculated nodule on the nose
2	64	Female	Paronychia on the right middle finger
3	69	Male	Severe itchy rash over bilateral arms
4	73	Female	Severe itch that affects sleep
5	76	Female	Nodule on the right upper eye lid affecting vision
6	85	Female	Pedunculated 1.5 cm nodule on right jaw
7	90	Female	1 cm nodule on forehead

and increased transepidermal water loss.⁴ As a result, dry skin can cause pruritus, excoriations and increased risk of skin infections. Taking this opportunity, we educated them on the importance of regular application of moisturisers to restore the skin barrier functions.

Pigmented lesions such as seborrheic keratosis and solar lentigines were found in a significant percentage of the elderly. Lesions suspicious of actinic keratosis and skin cancers were screened and referred for further evaluation by medical practitioners. In Singapore, the Singapore Cancer Registry ranks skin cancer as the sixth most frequent cancer in both men and women in the period 2009 to 2013.⁵ However, skin cancer screening is little emphasised. This is especially vital in the less educated elderly, because they tend to place little attention to their skin care.

Even though this pilot screening programme is limited by sample size, it is instrumental in our understanding of the dermatological needs of the elderly community with low SES. In Singapore, there is frequent screening for diseases such as hypertension, diabetes, and breast/colon cancer, yet there is few screening for skin problems. Globally, the incidence of skin cancers is also on the rise, with 2 to 3 million non-melanoma skin cancers and 132,000 melanoma skin cancers being diagnosed annually.⁶ Asteatosis and asteatotic eczema had a prevalence of 70.5% and 16.4% in the elderly population in a recent study on Japanese elderly population.⁷ This corroborates our findings with a similar prevalence. We encourage future larger screening programmes and education to improve the skin health of this population.

One of the limitations of our study was the inability to follow-up on the diagnosis of the 7 patients who required follow-up care with a medical practitioner. The centre manager of the THK Radiance SAC was informed and tasked with the follow-up of the individuals. However, we were unable to retrieve the final diagnosis from polyclinics and dermatologists due to medical confidentiality. Future studies could attempt to follow-up on the outcome of the elderly to evaluate the population which require specialised medical attention.

There is a need for more attention to the skin health of the elderly, as a breach in skin barrier can potentially lead to infections and other chronic skin problems. Dermatology nursing professionals can play an active role in screening and education.⁸ They can teach the elderly simple yet important skin care habits such as regular application of moisturisers after bath, use of sun protection devices such as umbrella and clothing or application of sunscreen, and to seek medical attention when they notice abnormal lesions on their skin.

Acknowledgement

The authors would like to thank Ms Brenda Lim for supporting the community skin assessment, Ms Wong Bee Yin and Ms Tan Kim Lian for performing the skin assessment, and all three for the development of the skin assessment form.

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Mabel QH Leow,^{1,2} PhD, Taige Cao,³ MBBS, MRCP(UK)

¹Nursing Department, National Skin Centre, Singapore

²Biomechanics Laboratory, Singapore General Hospital, Singapore

³Dermatology Department, National Skin Centre, Singapore

Address for Correspondence: Dr Mabel Leow Qi He, Biomechanics Laboratory, Singapore General Hospital, Academia, 20 College Road, Level 1, Singapore 169856.

Email: mabel.leow@u.nus.edu