

# Sun exposure knowledge in a dermatologic center in Bogotá

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## Introduction

In recent decades there has been an increase in the incidence of non-melanoma and melanoma skin cancer. Keratinocytic skin cancer (KSC) is the most frequent malignant neoplasm in fair skin. In Colombia, skin cancer diagnosis is often made in its late stages and its prognosis is poor, which makes it a high burden disease to the health system; this could be presumably due to the lack of information available to the general population on this subject. In Latin American literature, there is little information on the knowledge of the general population on this subject and photoprotection habits. The aim of this study is to evaluate knowledge about sun exposure by means of a validated questionnaire on photoprotection, taking into account educational level, sex and socioeconomic level.

## Materials and methods

A descriptive cross-sectional study was carried out. Data was collected through the CHACES survey applied to patients who attended a dermatologic center in Bogotá, Colombia, from August 2021 to March 2022. Quantitative variables were described with measures of central tendency and dispersion according to the normality of the variables, and qualitative variables with absolute and relative frequencies. We used Microsoft Excel 16.60 to analyze data.

## Results

A total of 348 patients were interviewed. The mean age was 47 years. The majority of patients were between 31 and 42 years of age (n= 90, 26%). Among the surveyed population, 38% of the patients were studying or had completed university studies, and 16% had high school education. In terms of educational level, patients with a doctoral degree had the highest number of correct answers, while patients with no education answered the fewest questions correctly. Women had the highest percentage of correct answers in all the survey questions.

The question with the lowest number of correct answers was: "dark clothes protect more from sunlight than light clothes", which obtained a correct percentage of 17.86% in the lowest socioeconomic level vs. 44.00% in the highest socioeconomic level, and 13.16% in the lowest educational level vs. 50.00% in the highest educational level (PhD).

Age group in years	No	Do not know	Yes
<18			100.00%
>68	4.17%	41.67%	54.17%
18-30	9.23%	38.46%	52.31%
31-42	6.67%	37.78%	55.56%
43-55	6.90%	50.00%	43.10%

**Table 1.** "The use of UVA booths before the age of 30 increase the risk of melanoma". In this question, young people, who obtained a higher percentage of correct answers were more conscious of the harm of UVA booths.

Age group in years	No	Do not know	Yes
<18	100.00%		
>68	39.58%	4.17%	56.25%
18-30	56.92%	9.23%	33.85%
31-42	65.56%	5.56%	28.89%
43-55	43.10%	8.62%	48.28%

**Table 2.** "We are not at risk from solar radiation being in the shade". People under 18 years answered this question adequately, understanding the risk from solar radiation even in the shade.

## Conclusions

This study reflects the importance of reinforcing education through awareness campaigns on UVR protection measures, particularly in the population with lower educational level and thus preventing related diseases that are considered a public health problem such as skin cancer. It is necessary to set aside a space to educate every patient about photoprotection as a method of prevention of KSC. According to our results, the patient's educational level has a direct influence on self-care habits and protection against ultraviolet radiation.

## References

1. Leiter, U., Keim, U., & Garbe, C. (2020). Epidemiology of Skin Cancer: Update 2019. *Advances in experimental medicine and biology*, 1268, 123–139.
2. Meijs, M., Herrera, A., Acosta, A., & de Vries, E. (2022). Burden of skin cancer in Colombia. *International journal of dermatology*, 10.1111/ijd.16077. Advance online publication.