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Abstract

Perceptions of indoor vs. outdoor tanning risks among melanoma patients who have a history of indoor UV tanning: an international internet survey

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Introduction

A new U.S. FDA regulation categorizes tanning beds as category II¹, and similar global regulatory action require informing users of the “risk of skin cancer” as methods to reverse the growing trend of indoor tanning. However, little is known from the patient’s perspective on whether or not knowledge of risk of cancer is a deterrent to indoor tanning. Also, there is conflicting literature on the relationship between frequency of indoor tanning, age of onset and characteristics of patients’ melanoma diagnoses.

Methods

An international survey was launched questioning those who are at least 18 years old and self-report being diagnosed with melanoma after indoor tanning. The survey link was made available to university and hospital dermatology departments, private dermatology practices, patient advocacy groups, and social media.

Results

A total of 448 participants from eleven countries responded to the survey. Among responders, those who perceived indoor tanning as safer than outdoor tanning utilized indoor tanning more frequently than those who don’t ($r = -0.224, p < 0.05$). Skin cancer warnings failed to influence indoor tanning frequency. Neither the frequency of nor the age of onset of indoor tanning had an effect on the time frame in which melanoma is diagnosed. Moreover, the age of onset of tanning correlated with the Breslow level of melanoma.

Conclusion

Those who more frequently tan indoors perceive this method as a safer alternative to outdoor tanning. Knowledge of the risk of skin cancer with tanning results in no decline in the frequency of indoor tanning.