Skin protection behaviors, beliefs, and perceptions

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Introduction

The amount of sun exposure is variable from person to person as are the practices each individual takes to shield themselves from the sun's rays. The effects of sun exposure and UV radiation on skin are well documented in medical literature and public health campaigns. Non-melanoma skin cancer is the most common cancer in the United States [1], but the effects of UV radiation include many more moieties including skin aging, photodermatitis, increased pigmentation, and immune suppression [2]. We are interested in understanding people's' beliefs on the effects of UV radiation and how that affects their perceptions and behaviors.

Methods

We conducted a cross sectional survey in the UC Davis Dermatology Department in Sacramento over a 1-month period from January 2017 through February 2017. Patients at the UC Davis dermatology department were sampled randomly at the end of their healthcare encounter. Questionnaires were completed anonymously via survey monkey questionnaire application on an iPad and Microsoft Surface. The study was deemed exempt by the UC Davis Institutional Review Board.

Participant demographics

87 patients participated in the survey. Of those 87, 11 (12.6%) were 19-34 years old, 18 (20.7%) were 35-49 years old, and 58 (66.7%) were over the age of 50. 39 (44.8%) of the participants were male and 48 were female (55.2%). The education levels varied amongst the group with 12 (13.8%) having up to a high school level education, 41 (47.1%) having a college level education, 33 (37.9%) having a graduate degree, and 1 patient where the question was not applicable. When asked about sun exposure, 25 (28.7%) of the patients had minimal exposure, 34 (39.1%) had low exposure, 22 (25.3%) had moderate exposure, and 6 (6.9%) of the patients had high exposure.

Results

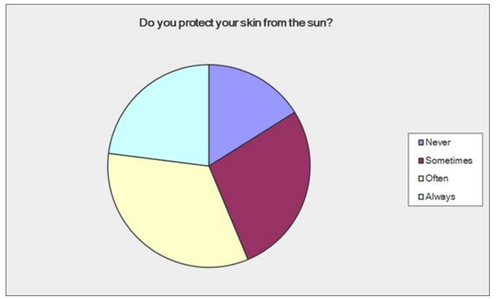

Figure 1: Participant skin protection frequency

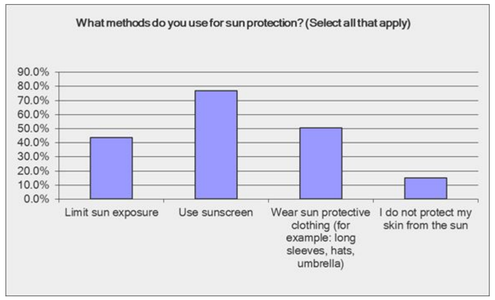

Figure 2: Participant skin protection methodology

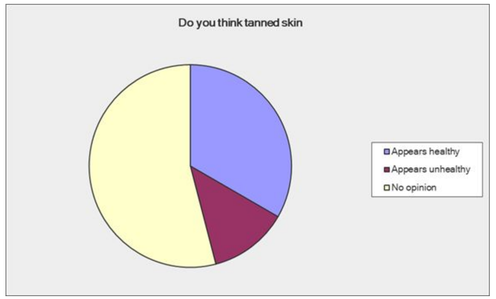

Figure 3: Perceptions of tanned skin and health

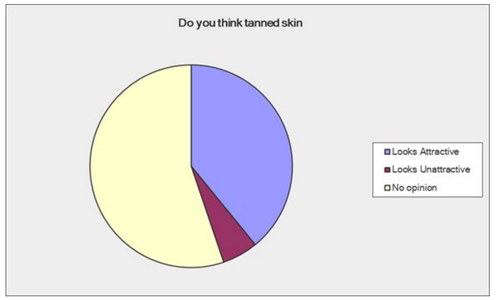

Figure 4: Attraction to tanned skin

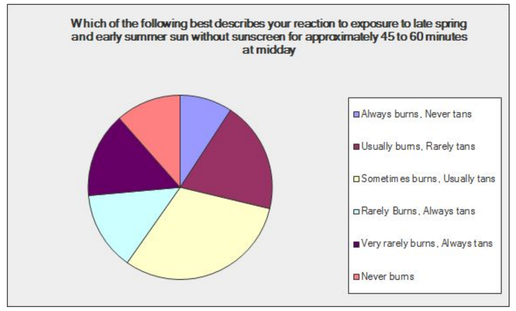

Figure 5: Participant Fitzpatrick score

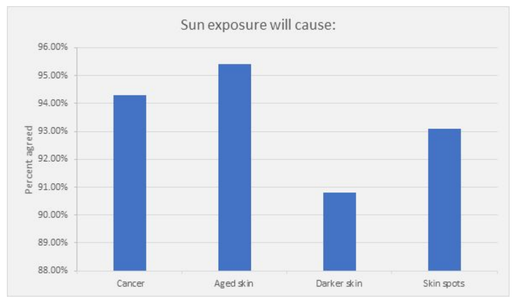

Figure 6: Participant beliefs of consequences of sun exposure

Summary and Conclusions

A striking majority of the patients were aware of the effects that sun exposure can cause. Over 90% of the patients agreed that cancer, skin aging, sun spots, and increased pigmentation can be induced by exposure to the sun. One of the results also noted were that a majority of patients did not have opinions on whether or not tanned skin looked attractive on healthy. In the groups that did have an opinion, most of them believed tanner skin to be more attractive and healthier.

When asked about sun protection the results were mixed. Over 80% of the patients (83.9%) protected their skin from the sun in some manner. The frequencies were mixed pretty evenly between sometimes, often, and always. For methods of protection, sunscreen was the most popular mode by far with 77% of the population using it. The next most popular was wearing sun protective clothing, and the least popular was limiting sun exposure.

References

1. Katz, M. H. "Nonmelanoma skin cancer." *Maryland medical journal (Baltimore, Md. : 1985).* U.S. National Library of Medicine, n.d. Web. 16 Feb. 2017.

2. Nghiem D.X., Kazimi N., Clydesdale G., Ananthaswamy H.N., Kripke M.L., Ullrich S.E. Ultraviolet A radiation suppresses an established immune response: Implications for sunscreen design. J. invest. Dermatol. 2001;117:1193–1199.

Acknowledgments

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