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# Characteristics and Practices of Adults Who Use Tanning Beds in Private Residences

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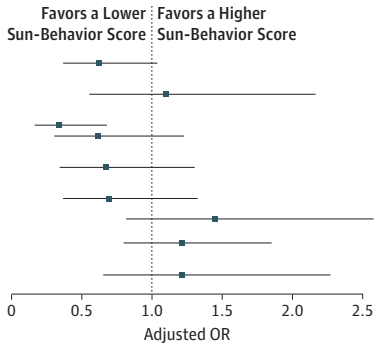
Figure 2. Adjusted Odds Ratios (ORs) for the Probability of a High Sun-Behavior Score

| Effect | Adjusted OR (95% CI) |
|---|---|
| Ethnicity: AI vs NHW | 0.62 (0.37-1.04) |
| Ethnicity: other vs NHW | 1.10 (0.56-2.17) |
| Age: 18-30 vs >61 y | 0.33 (0.16-0.68) |
| Age: 31-40 vs >61 y | 0.61 (0.31-1.22) |
| Age: 41-50 vs >61 y | 0.67 (0.34-1.30) |
| Age: 51-60 vs >61 y | 0.69 (0.36-1.32) |
| Family history: yes vs no | 1.45 (0.82-2.58) |
| Sex: F vs M | 1.22 (0.80-1.85) |
| Eyes: blue vs not blue | 1.22 (0.65-2.27) |




Adjusted for ethnicity, age, family history of skin cancer, sex, and eye color. AI indicates American Indian participant; NHW, non-Hispanic white participant. Error bars indicate Wald 95% CIs.

thicker and more advanced melanomas among minorities, including American Indian individuals,[5] more often in non-sun-exposed skin, highlights the need for more effective melanoma awareness for all races and ethnicities in the United States as well as evaluation of etiologic differences. Although there remain insufficient data to support skin cancer screening, lack of awareness may play a role in later presentation for care and greater melanoma mortality.[6] Our study underscores the importance of further assessment of the motivators and barriers to screening among Southwestern American Indian persons, a population at risk for thicker melanomas, poorer prognoses, and subsequently higher mortality rates.

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## Characteristics and Practices of Adults Who Use Tanning Beds in Private Residences

Recent research shows that 7.7% of individuals who use indoor tanning beds do so in private homes,[1] but little is known about this group. This study evaluated the tanning practices, reasons for tanning, and association with tanning addiction of adults who use tanning beds in private residences.

**Methods** | A nationally representative sample of 773 adults (≥18 years) who have ever used an indoor tanning bed or who intend to was recruited through Survey Sampling International from July 24 to August 19, 2014. We first recorded the prevalence of indivduals who have ever used an indoor tanning bed in a home. We then created 2 groups of participants who used an indoor tanning bed in the last year (N = 519): those who reported tanning primarily in a home setting (ie, their home or someone else's home) (n = 44) and those who reported tanning primarily elsewhere (n = 475). We compared these groups on demographics, indoor tanning frequency in the past year, and symptoms of tanning addiction. Symptoms of tanning addiction were measured using the 7-item Behavioral Addic-

Table 1. Participants' Demographic Characteristics, Indoor Tanning Sessions, and Addiction

| Characteristic | Value[a] | | |
|---|---|---|---|
| | Use of Tanning Bed at Home (n = 44)[b] | Use of Tanning Bed Elsewhere (n = 475)[c] | Total (N = 519) |
| Age, mean (SD), y | 33.4 (12.1) | 34.6 (11.4) | 34.5 (11.5) |
| Sex | | | |
| Male | 20 (45.5) | 164 (34.5) | 184 (35.5) |
| Female | 24 (54.5) | 311 (65.5) | 335 (64.5) |
| Race/ethnicity[d] | | | |
| White | 34 (77.3) | 359 (75.6) | 393 (75.7) |
| Nonwhite | 10 (22.7) | 116 (24.4) | 126 (24.3) |
| Total annual household income, $ | | | |
| <40 000 | 11 (25) | 115 (24.2) | 126 (24.3) |
| 40 000-79 999 | 18 (40.9) | 210 (44.2) | 228 (43.9) |
| ≥80 000 | 15 (34.1) | 150 (31.6) | 165 (31.8) |
| Educational level | | | |
| High school/some college | 17 (38.6) | 173 (36.4) | 190 (36.6) |
| Associate's degree/Bachelor's degree | 21 (47.7) | 223 (46.9) | 244 (47) |
| Master's degree/professional degree/doctorate degree | 6 (13.6) | 79 (16.6) | 85 (16.4) |
| Skin type | | | |
| Always burn, and never tan | 5 (11.4) | 30 (6.3) | 35 (6.7) |
| Usually burn, and tan minimally | 10 (22.7) | 127 (26.7) | 137 (26.4) |
| Sometimes mild burn, and tan uniformly | 15 (34.1) | 169 (35.6) | 184 (35.5) |
| Rarely or never burn, tan well or very easily | 14 (31.8) | 149 (31.4) | 163 (31.4) |
| Indoor tanning sessions in past year, No. | | | |
| Mean (SD) | 26.6 (26.5) | 17.3 (21.2) | 18.1 (21.8) |
| 1-12 (once a month or less) | 20 (45.5) | 295 (62.1) | 315 (60.7) |
| >13 (more than once a month) | 24 (54.5) | 180 (37.9) | 204 (39.3) |
| BAITS score (tanning addiction) | | | |
| Mean (SD) | 3.5 (2.6) | 1.8 (2.3) | 1.9 (2.4) |
| Positive for tanning addiction | 29 (65.9) | 188 (39.6) | 217 (41.8) |

Abbreviation: BAITS, Behavioral Addiction Indoor Tanning Screener.

[a] Data are presented as number (percentage) of participants unless otherwise indicated.

[b] Those who reported using a tanning bed primarily in a home setting (ie, their home or someone else's).

[c] Those who reported using a tanning bed primarily in a location other than a home setting.

[d] Categories are mutually exclusive.

tion Indoor Tanning Screener, a tool developed to capture tanning behaviors that correspond with behavioral addictions such as feelings of diminished control and strong urges to engage in indoor tanning.[2] Participants who endorsed 2 or more items on the Behavioral Addiction Indoor Tanning Screener were considered to be positive for tanning addiction. We evaluated reasons that people tan primarily at home (Cronbach α, 0.94). Finally, among the 72 individuals who said their family owns a home tanning bed, we evaluated use and maintenance practices. The University of Massachusetts Medical School institutional review board granted ethics approval. Participant consent was waived since the survey is minimal risk and anonymous. Instead, participants reviewed a fact sheet before starting the survey.

Bivariate comparisons were done using $\chi^2$ tests and independent samples *t* tests, as appropriate. All analyses were performed with the use of SPSS software, version 23 (SPSS Inc).

**Results** | Of the 636 adults who had ever tanned indoors, 170 (26.7%) reported having tanned at least once in a private home. Among the 44 recent tanners for whom a home is their primary tanning location, 21 (48%) said they tan in their home, 20 (46%) said they tan in the home of a friend or relative, and 3 (7%) said they tan in their apartment complex. Among the 475 recent tanners who tan in a location other than a private residence, 390 (82.1%) named a tanning salon as their main location.

Participants who tan primarily in the home were not significantly different from people who tan primarily elsewhere on age, sex, or race/ethnicity (**Table 1**). They did, however, report more indoor tanning sessions in the past year (mean [SD], 26.6 [26.5]; interquartile range, 7.3-36.0) than did people who tan primarily elsewhere (mean [SD], 17.3 [21.2]; interquartile range, 4.0-21.0; $P = .006$). They were also more likely to exceed the cutoff score of 2 for the Behavioral Addiction Indoor Tanning Screener than were those who tan elsewhere ($P < .001$). The most common reasons given for using a tanning bed at home included not having to wait (41 [93%]) and tanning for free (40 [91%]) (**Table 2**).

Among the 72 people who said their family owns a tanning bed, 35 (48.6%) reported that they allow nonfamily members to use it. Twenty-four people (33.3%) reported receiving money from others for using the device. Sixty-six people (91.7%) reported cleaning the tanning bed after every use, and 62 (86.1%) reported regularly changing the lightbulbs. Only 16 (22.2%) reported having the mechanical parts of the tanning bed professionally inspected.

Table 2. Reasons for Using Tanning Beds at Home for Those Who Tan Primarily at Home

| Reason | No. (%)[a] | |
|---|---|---|
| | Disagree or Neutral | Agree |
| I do not have to wait in line | 3 (7) | 41 (93) |
| I can tan for free | 4 (9) | 40 (91) |
| The home environment is much more relaxing | 7 (16) | 37 (84) |
| It is less expensive than a tanning salon | 8 (18) | 36 (82) |
| I feel it is more private than being at a tanning salon | 9 (21) | 35 (80) |
| I do not have to worry about my belongings being stolen | 10 (23) | 34 (77) |
| It is more convenient for me than going to the tanning salon | 11 (25) | 33 (75) |
| I do not have to travel far | 11 (25) | 33 (75) |
| I can tan anytime I want | 12 (27) | 32 (73) |
| It is less restrictive than a tanning business because I can tan as frequently or for as long as I want | 14 (32) | 30 (68) |

[a] "Strongly disagree," "disagree," and "neutral" were collapsed into "disagree or neutral"; "agree" and "strongly agree" were collapsed into "agree."

**Discussion** | Results revealed that many indoor tanners have used a tanning bed in a home at any time (26.7%), with a smaller group (6.9%) using a tanning bed primarily in a home. Indoor tanners who use a tanning bed primarily in a home appear to tan more frequently and have higher rates of positive screening scores for tanning addiction than do those who tan primarily in other locations. Findings also revealed that almost half of tanning bed owners let others use their tanning bed and sometimes charge others for its use.

Results indicate that most owners of home tanning beds do not have professional inspection performed on their devices. The safety of home devices is not covered by inspections or licensing often required of commercial indoor tanning facilities.[3] Less-expensive tanning was a commonly cited reason to tan in the home. Therefore, strategies that increase the cost of using these devices may reduce tanning in homes. Home tanners appear to be a small but high-risk group who should be targeted in intervention efforts to prevent skin cancer.

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## OBSERVATION

# An Inflammatory Skin Reaction After Cetuximab Treatment for Aggressive Cutaneous Squamous Cell Carcinoma in a Heart Transplant Patient Previously Taking Voriconazole

Cetuximab, an epidermal growth factor receptor inhibitor, is a safe therapeutic alternative for advanced or unresectable cutaneous squamous cell carcinoma (cSCC).[1] To our knowledge, this is the first case to describe an inflammatory cutaneous reaction with accentuation of lesions after cessation of cetuximab therapy.

**Report of a Case** | A man in his 50s presented with numerous hyperkeratotic erythematous papules and plaques on his face and scalp. He had undergone heart transplantation 2 years earlier