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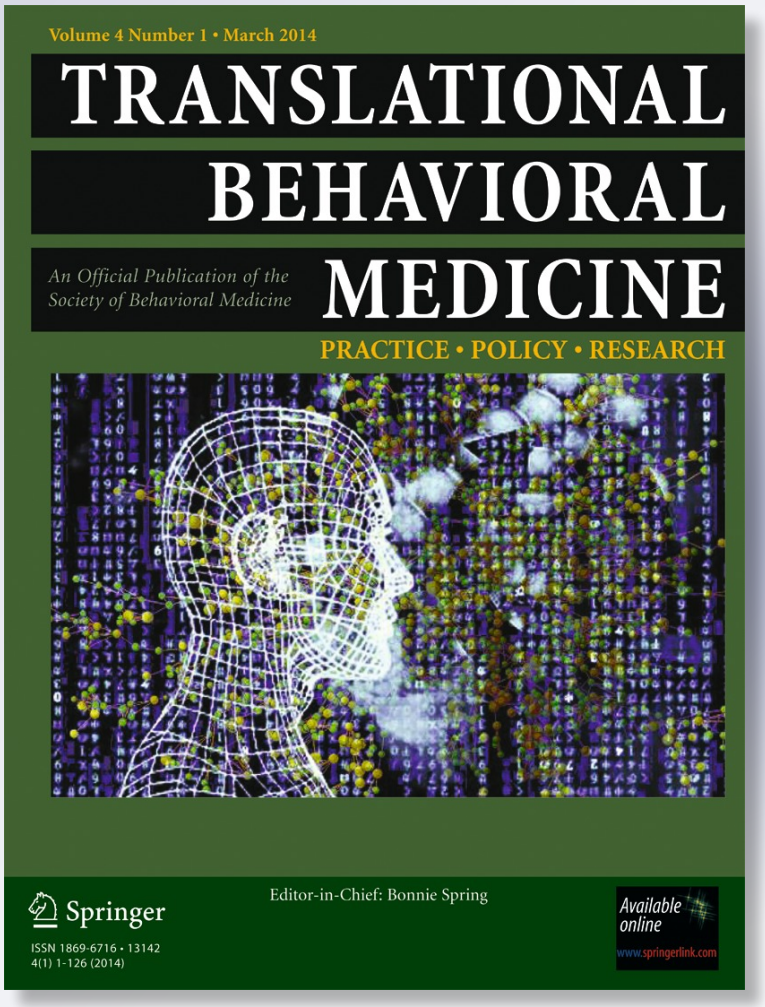

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TBM

PRACTICE AND PUBLIC HEALTH POLICIES

Society of Behavioral Medicine (SBM) position statement: ban indoor tanning for minors

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ABSTRACT

The Society of Behavioral Medicine (SBM), an interdisciplinary professional organization focused on the science of health behavior joins the American Academy of Dermatology, the American Academy of Pediatrics, and a host of other national and international organizations in support of a total ban on indoor tanning for minors under the age of 18. According to the International Agency for Research on Cancer, artificial sources of ultraviolet radiation are in the highest category of carcinogens, joining tobacco and asbestos. Strong evidence links indoor tanning to increased risk for melanoma with repeated exposure during childhood being associated with the greatest increase in risk. Several countries and five US states have passed legislation banning indoor tanning in minors. We strongly encourage the remaining US states to do the same in an effort to protect children and prevent new cases of melanoma. SBM also strongly encourages research that explores the use of tanning beds in the home. Home-based indoor tanning has the potential to be especially dangerous given the complete absence of safety regulations. Children are currently protected from exposure to health-harming substances like tobacco and lead; thus, legislation protecting them from artificial sources of ultraviolet radiation is yet another important step forward in improving public health.

KEYWORDS

Skin cancer, Indoor tanning, Melanoma, Prevention, Health policy

Implications

Practice: Clinicians working with patients who engage in indoor tanning should educate them about the health risks and be aware that some tanners may develop a "dependency" on tanning that resembles substance dependence.

Policy: SBM proposes a ban on indoor tanning in minors under the age of 18 as a measure to reduce the prevalence of melanoma in the US.

Research: Research is needed to evaluate the impact of indoor tanning related policy as well as indoor tanning that occurs in non-legislated contexts, such as in the home.

The Society of Behavioral Medicine (SBM) is an interdisciplinary organization of scientists and clinicians focused on the science of human behavior as it relates to health and illness. SBM joins the US Department of Health and Human Services [1], US Food and Drug Administration (FDA) [2], American Academy of Pediatrics [3], American Medical Association, American Academy of Dermatology [4], Canadian Pediatric Society [5], and the World Health Organization [6] in support of a ban on indoor tanning for minors. An indoor tanning ban for minors is indicated for the following reasons:

- Research has clearly established that indoor tanning increases risk for both nonmelanoma [7] and melanoma skin cancers [8]. Indoor tanning has also been linked to serious eye damage [9, 10]. Artificial sources of ultraviolet (UV) radiation join tobacco and asbestos in the highest category of human carcinogens per the International Agency for Research on Cancer [6].
- Exposure to UV radiation in early life increases the risk for developing skin cancer. In a case–control study in Australia, adults under 40 who had 10 or more indoor tanning sessions in their lifetime had a twofold increase in the risk for developing melanoma by that age relative to people who had never tanned indoors [11]. The increase in risk associated with 10 or more indoor tanning visits was fourfold for melanoma diagnosed between18 and 29 years of age.
- In some tanners, tanning can develop into "tanning dependence," a pattern of tanning that bears resemblance to other substance dependencies. The suspected mechanism for tanning dependence is via the release of endogenous opioids when the skin is exposed to UV radiation [12]. Possible cases of tanning dependence are not uncommon, with rates ranging from 33 to 41 % among tanning salon

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patrons [13], 22–45 % among college indoor tanners [14–17], and 5–27 % among general college student samples [14–18].

It might be argued that a ban is to extreme of a measure and instead states should adopt restrictions that protect minors from risk. A number of states have passed parental consent laws intended to limit access to indoor tanning among minors [19]. However, such measures not only have low compliance rates but they have also been shown to have no effect on rates of indoor tanning [20]. A stronger measure–a ban–is needed.

RESTRICTIVE MEASURES

Parental consent–Parental consent laws have been enacted in 28 states [19]. The age requiring permission varies from 14 to 18, and 21 states require parents to provide permission in person [19]. Such legislation assumes parents are aware of the risks of indoor tanning, but this is often not the case [21, 22]. Favorable indoor tanning attitudes and behaviors among parents are associated with similar attitudes and practices among their children [20, 22–26]. For example, daughters who tan for the first time with their mothers are over four times more likely than others to become heavy tanners [23]. Additionally, the earlier children begin indoor tanning, the more difficult they report it would be to quit [27].

Some studies suggest that parental consent laws may not be effective at preventing indoor tanning use among minors. National rates of indoor tanning use among minors did not decrease in the 2000s despite multiple states passing parental consent laws [28]. Rates of indoor tanning among minors in states with parental consent compared to states without parental consent are equivalent [20]. Further, two studies showed that among tanning salons studied in states with parental consent laws, many failed to comply with parental consent laws [29, 30]. In one study of 200 salons in Minnesota and Massachusetts, 15-year-old girls posing as customers with no parental consent were sold a tanning visit at 81 % of the salons visited [29]. In a second study of 54 tanning salons in California, 57 % of tanning salons answered "yes" when asked by a research confederate posing as a patron if her 15-year-old sister would be allowed to use tanning visits she purchased [30]. A possible reason for noncompliance may be that penalties for noncompliance to parental consent laws are often small or nonexistent [31]. Further research is needed to explore rates compliance with parental consent laws on a national level and reasons for noncompliance.

Tanning tax–In July 2010, as part of the Patient Protection and Affordable Care Act, the federal government levied a 10 % excise tax on the sale of indoor tanning services. A recent study, however, showed that among 308 salon owners surveyed in Illinois, a majority (74 %) reported no reduction in clients as a result of the tax; a majority (71 %) also reported that the tax did not result in a decrease in tanning frequency among clients [32]. It remains unclear if the tax resulted in clients switching to UV-free tanning options, such as spray-on tans, or if they continued their UV tanning habits in spite of the tax. Further research is needed to evaluate the impact of different degrees of taxation on indoor tanning and skin cancer prevention.

US FDA Guidelines–The FDA regulates indoor tanning (1) by creating standards for manufacturers of indoor tanning devices and (2) by requiring these manufacturers to provide directions for tanning device use to such purchasers as indoor tanning businesses.

The standards: FDA standards mandate manufacturers to include a warning label. The label must read (in part): "DANGER–Ultraviolet radiation. Follow instructions. Avoid overexposure. As with natural sunlight, overexposure can cause eye and skin injury and allergic reactions. Repeated exposure may cause premature aging of the skin and skin cancer."

Tanning device directions: The FDA mandates that directions to tanning device purchasers include a recommended exposure schedule that limits tanning sessions to three in the first week of indoor tanning exposure. One study showed, however, that most facilities (94 % or higher) do not post the FDA first week exposure schedule [30]. Another study found that 95 % of indoor tanning patrons exceeded tanning limits [33].

SBM POSITION

1. SBM supports a complete ban on indoor tanning for minors under 18 years of age. The health hazards linked to indoor tanning are serious and potentially deadly, and current restrictive measures have been ineffective. Parental consent laws have not reduced indoor tanning rates, suggesting that parents may not be adopting the gatekeeper function that was the intent of such laws. Bans are needed to more directly impact tanning rates in children [34]. As of June 2013, 15 states have age restriction bans, five restrict all minors (California, Vermont, Texas, Nevada, and Oregon), one restricts children under 17 years of age, one restricts children under 16, and eight restricts children under 14 [19]. Eleven countries ban indoor tanning in all minors, including France, Spain, Portugal, Germany, Austria, Belgium, England, Wales, Northern Ireland, Scotland, and Brazil [35]. Six territories in Australia also have bans in all minors. Brazil and New South Wales, Australia, have banned indoor tanning in minors and adults. Now that several states have enacted bans, SBM calls for

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research examining compliance to the ban, the effect of bans on rates of indoor tanning in minors, and ultimately skin cancer rates. Two studies showed that compliance with age-related bans by tanning businesses is fairly high (i.e., 70–77 %) [34, 36]. Additional research will make even more compelling the case for bans in minors across the USA and around the world.

2. SBM endorses further exploration into the prevalence and associated risks of indoor tanning in secondary locations and private homes. SBM is also concerned about indoor tanning by individuals of all ages in secondary locations, which include any business for which tanning is not the primary service, such as gyms, hair salons, dormitories, and apartment complexes. These locations are expected to be licensed to provide indoor tanning services; however, failure to do so may be difficult to detect because city inspectors often lack the resources to systematically determine which businesses offer tanning.

Indoor tanning also occurs in the home for many individuals, as tanning bed companies market directly to consumers. Although home tanning bed ownership is banned in several European countries and Australia, home indoor tanning is legal in the USA and wholly unregulated. Home-based indoor tanning has the potential to be quite dangerous given the absence of safety regulations. Individuals who tan in secondary locations, and especially those who have a tanning device in their home, may develop riskier tanning habits (e.g., greater frequency, longer duration, and no eye protection) than tanners using regulated tanning businesses. SBM calls for further research on the prevalence of tanning in secondary locations as well as tanning habits, licensing, and safety practices in secondary locations.

SBM includes among its membership many of the nation's leading experts in skin cancer prevention, tanning behavior, tanning dependence, and indoor tanning policy. These experts are available for consultation to advocates and organizations seeking to design and promote state legislation. SBM is amenable to partnerships with other professional organizations that share the mission of protecting children from the dangers of indoor tanning.

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