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UV tanning advertisements in national high school newspapers

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Abstract

Many young adults have utilized indoor ultraviolet (UV) tanning, putting them at higher risk for development of skin cancers. Prior to the increased regulations on indoor tanning for minors, indoor tanning businesses marketed to teens through modalities such as advertisements in high school newspapers. The purpose of this study was to quantify tanning advertisements in high school newspapers published across the United States between August 2014 and July 2015. Online versions of the newspaper issues were available on issuu.com. Tanning advertisements appeared in 3 of 23 high school newspapers with advertisements of any kind (13%). Among all newspapers with advertisements, 10% were indoor tanning advertisements. One newspaper in Colorado contained advertisements of any kind and had 0 tanning advertisements. A prior study of Colorado high schools showed 11 of 23 schools (48%) to contain tanning advertisements. This suggests that there may be a decrease in indoor UV tanning advertisements owing to increased tanning regulation by state legislatures, national attention to UV tanning, or a general decrease in high school tanning advertisements.

Keywords: UV tanning; indoor tanning; high school advertisements

Introduction

Over 400,000 yearly cases of skin cancer in the United States can be attributed to indoor tanning [1].

Existing evidence shows that the greatest risk of skin cancer from ultraviolet (UV) radiation is associated with earlier exposure [2, 3]. In 2013, 12.8% of all high school students reported indoor UV tanning in the last 12 months, which had not significantly decreased since 2011. Moreover, 20.2% of all females and 30.7% of Caucasian females in high school used indoor tanning [4]. Teenagers double their use of indoor tanning from 9th-grade to 12th-grade with a peak prevalence in the 18- to 21-year old demographic [4, 5]. As a result, the majority of university students have utilized indoor tanning [1]. Recognizing the risk of UV exposure at a young age, individual states have created a variety of indoor tanning restrictions for minors [6]. Prior to the adoption of more widespread tanning legislation, tanning businesses frequently targeted the teen population by advertising in high school newspapers [7]. The purpose of this study was to quantify tanning advertisements in high school newspapers published across the United States. Due to the increased regulation regarding indoor tanning for minors, we hypothesized a decrease in advertisements targeting high school students in comparison to prior published data [7].

Methods

Newspapers available on issuu.com were reviewed and issues published between August 2014 and July 2015 were examined for indoor tanning advertisements. Twenty-five high school newspapers with available published online issues met criteria for the specified eligibility period. Indoor tanning advertisements of any kind were identified and the results analyzed with Microsoft Excel.

Results

Twenty-five high school newspapers were identified with a total of 164 separate issues in 15 different states. Tanning advertisements appeared in 3 of 23 high school newspapers that contained advertisements of any kind (13%). Two newspapers did not contain advertisements of any kind. Of the 164 high school newspaper issues, 10% of all advertisements were tanning advertisements.

The three high school newspapers with tanning advertisements were all in states with indoor tanning restrictions, although tanning was legal for adolescents in each of these states. Advertisements included fixed-duration tanning specials ranging from one-time to one-month, combination packages with a spray tan, free tanning with purchase of lotion, and even a free tanning weekend (**Table 1**). One of the advertisements explicitly described the need for parental consent in that state.

Discussion

As of May 2015, 42 states regulated indoor tanning for adolescents. This includes 13 states with complete bans on indoor UV tanning under age 18, with California being the first to adopt such legislation in 2012 [6]. Prior studies have shown that states with indoor tanning restrictions for minors resulted in a decrease in indoor tanning [8].

A previous study of high school newspapers published between 2001 and 2005 within 23 schools of Denver, CO showed that 11 of 23 schools (48%) contained indoor tanning advertisements [7]. Our study found one high school newspaper in Colorado with advertisements of any kind but zero tanning advertisements. Additionally, we identified that only 3 of 23 (13%) newspapers published indoor tanning advertisements nationally. Although these studies used different populations, the data found in our study suggests that there may be a decrease in indoor tanning advertisements.

Several reasons could account for this potential decrease: different sample newspapers used in the study, a decrease in general high school newspaper advertisements, or the effects of increased state-mandated regulations on indoor UV tanning. Additionally, the low incidence of tanning

advertisements in newspapers could be related to behavioral factors such as a decrease in tanning popularity. Finally, national attention to the dangers UV tanning may be affecting advertising in states without regulations in place.

Interestingly, the three states that had indoor UV tanning advertisements were all in states with UV tanning regulations, which included Missouri, Ohio, and Indiana. This finding may relate to the behavioral characteristics of those particular areas. For example, tanning may be more popular in those areas relative to the high schools of the other newspapers analyzed. Additional studies are needed to further investigate this finding.

Conclusion

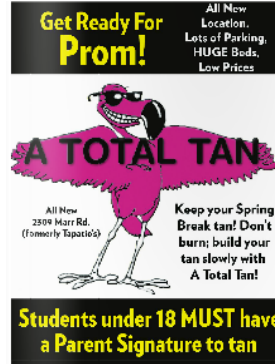
Indoor UV tanning advertisements continue to occur in high school newspapers but may be decreasing. Our study found that nationally, 13% of high school newspapers with advertisements of any kind contained tanning advertisements in comparison to a prior study demonstrating that 48% of high schools in Colorado contained tanning advertisements.

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Table 1. UV tanning advertisements in high school newspapers, including the newspaper name, high school name, location, and issue date

<p><i>The Triangle</i> Columbus North HS Columbus, OH Issue: 1/20/2015</p>	<p><i>The Triangle</i> Columbus North HS Columbus, OH Issue: 4/3/2015</p>
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<p><i>HiLite News</i> Carmel HS Carmel, IN Issue: 5/21/2015</p>	<p><i>HiLite News</i> Carmel HS Carmel, IN Issue: 3/20/2015</p>
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<p><i>North Star</i> Francis Howell North HS Saint Charles, MO Issue: 2/11/2015</p>	<p><i>North Star</i> Francis Howell North High School Saint Charles, MO Issue: 9/17/2014</p>
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