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**Living Healthy Versus Looking Attractive:
The Multimodal Portrayal of Skin Cancer in Women's Magazines in the United States**

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Abstract

Through a multimodal discourse analysis, this study examines the portrayal of skin cancer in six highly circulated women's magazines in the United States. The findings of this study revealed a competing relationship between the verbal and visual discourses surrounding skin cancer. Overall, the verbal messages were health-oriented, promoting the importance of physical health. However, the images focused on intentional sun exposure behaviors, accentuating the physical attractiveness of a tanned appearance. The divergence of the verbal and visual messages may indicate a tendency to impose the pro-tan norms on the female body. In addition, consumerism was also prominent in the multimodal portrayal of skin cancer, blurring the line between information and advertising. Theoretical and practical implications these findings are discussed.

Keywords: multimodal discourse analysis, skin cancer, visual, women's magazine, consumerism

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Even with a decline in the incidence of all major cancers, the epidemic of skin cancers persists.¹ Approximately 3.5 million cases of non-melanoma skin cancer and 75,000 cases of melanoma are diagnosed annually.² More than \$8 billion has been dedicated to skin cancer treatment every year.³ And yet, although tanning has long been identified as a central risk factor for skin cancer,⁴ it is prevalent in adults under the age of 30, especially among women.⁵

Tanning is primarily stimulated by the cultural ideal of skin beauty in Western cultures.⁶ Tanned skin has been socially constructed as a symbol of wealth, health, and prestige in society.⁷ The mass media have been criticized for promoting pro-tan norms and the beauty ideal of a bronzed appearance.⁸ Most studies of the mediated portrayal of skin cancer use textual-oriented analysis, which precludes a comprehensive examination of skin-cancer-related discourse by selectively investigating one particular semiotic message, ignoring the meaning constructed by co-existing modalities, such as images.⁹

To address the gap in the literature, this study conceptualizes women's magazines as a multimodal artifact. Drawing on a perspective of critical multimodal analysis, this study examines both the verbal and visual representations of skin cancer in six highly circulated women's magazines. Specifically, this study investigates how the texts and images interactively construct the social reality of skin cancer and how the multimodal portrayals could, in return, reflect the cultural meanings surrounding tanning and skin cancer. Practically, it provides health journalists and editors baseline data to promote public awareness and knowledge about skin cancer, and ultimately to empower women to live a healthier life while enjoying the beauty of being a woman.

Literature Review

Pro-Tan Norms and Deliberate UV Exposure in The United States

Tanned skin was historically associated with manual laborers and low incomes.¹⁰ However, it became a symbol of wealth, healthiness, and prestige after World War II when sunny resorts and mass tourism flourished in the Western World.¹¹ Moreover, tanned skin has been fashionable since the 1920s when CoCo Chanel incorporated a tanned look in her fashion shows.¹²

Tanned skin is the result of UV exposure.¹³ Whether from sunbathing or artificial UV sources (e.g., sunlamp or tanning bed), UV radiation has long been identified as a central risk factor for skin cancer.¹⁴ Moreover, approximately 90 percent of non-melanoma skin cancers are associated with sun exposure.¹⁵ While sun exposure is essential to people's bone health and overall well-being,¹⁶ tanning is not motivated by health-related reasons.¹⁷ Tanners are almost exclusively motivated by physical attractiveness.¹⁸ The belief that people with a tan look healthier and more attractive reflects the pro-tan norms in the United States.¹⁹

Driven by appearance-based motivations, women are more likely than men to participate in risky UV exposure.²⁰ Non-Hispanic white females are the heaviest users of tanning beds in the U.S. adult population with almost 30% tanning each year and 15% tanning at least 10 times each year.²¹ With elevated use of tanning beds, rates of melanoma—the deadliest form of skin cancer—have been increasing in young white women in the past 30 years.²² In addition, melanoma is the second most common form of cancer in females between the age of 15 and 29.²³ Compared with their male counterparts, women under age 50 are more likely to develop melanoma.²⁴ The five-year survival rate for people with all stages of melanoma has increased to 92% in 2016, which may reflect early detections and screenings of skin cancer.²⁵

Pro-Tan Attitudes and Skin Cancer in the Media

The media play a powerful role in promoting pro-tan attitudes.²⁶ For instance, Dixon et al.²⁷ found that the frequency of news coverage of skin cancer significantly impacted the public's attitudes toward sun protection. However, despite the escalated incidence of melanoma between 1973 and 2004,²⁸ news coverage of the risk, prevention, and detection of skin cancer did not increase concurrently.²⁹ Moreover, the media provide intensive coverage of advertisements of tanning salons to the public.³⁰

In addition, the media also promote pro-tan norms through explicit visual representations.³¹ For instance, fashion models with a tanned appearance are frequently portrayed in the mass media.³² Exposure to such media increases risk factor for developing skin tone dissatisfaction in the audience.³³ In addition, exposure to reality TV among women led to more positive attitudes towards indoor tanning, greater intention to engage in indoor tanning, and the beliefs that tanned women were more fashionable.³⁴

Tanning and Skin Cancer in Women's Magazines

Complying with traditional feminine gender roles, women's magazines usually frame health from a perspective of beauty, fashion, and relationships.³⁵ Moreover, women's magazines promulgate beauty ideals of youthfulness and thinness.³⁶ Drawing on objectification theory, dominant cultural standards about gendered body image may socialize girls and women to view themselves as being evaluated based on bodily appearance.³⁷ For example, exposure to appearance-oriented content in women's magazines can lead to low self-esteem, appearance anxiety, and a desire to achieve unrealistic beauty ideals.³⁸

Tanning-related messages are prevalent in women's magazines and are appearance-oriented.³⁹ Contrary to the prevalent coverage of tanning, discussions of skin cancer remain scant.⁴⁰ Analyzing 31 issues of women's health magazines, Basch et al.⁴¹ reported that merely 1% of the articles addressed skin cancer. In addition, both healthy and risky behaviors are encouraged in the articles and advertisements women's magazines.⁴²

To understand the skin-cancer related discourses conveyed by women's magazines, existing studies mainly focus on either the verbal or the visual messages.⁴³ A magazine, however, is a multimodal artifact which consists of multiple semiotic modes, including verbal and visual elements. As the majority of the studies failed to examine the inter-semiotic relations between textual and visual meaning or simply regarded non-verbal representations as secondary to language,⁴⁴ multimodal discourse analysis (MDA) would serve as a more fruitful approach to examine the discourses surrounding skin cancer.

MDA underscores the importance of non-verbal modes, especially images, in meaning construction and message delivery.⁴⁵ Instead of considering non-verbal modes as peripheral and ornamental, MDA posits that multimodal texts create an inter-semiotic meaning through the composition of modes and mixed logistics.⁴⁶ Concerned with the inter-semiotic relationships, MDA sets out to find how different semiotic modes (i.e. music, images) interact with one another to create meaning.⁴⁷

There are two major approaches in multimodal discourse analysis: the contextual approach proposed by Kress and Van Leeuwen⁴⁸ and the grammatical approach of O'Toole.⁴⁹ This study used the contextual approach to MDA which has its roots in critical discourse analysis.⁵⁰ The contextual approach posits that discourses can be both socially constitutive and socially constituted.⁵¹ In other words, discourse not only arises from social situations and social agencies, but also leave traces in the texts.⁵² As such, the contextual approach focuses on the underlying ideology and the contexts of the multimodal texts.⁵³ Existing studies have used the contextual approach to analyze sound and music,⁵⁴ scientific texts,⁵⁵ and hypermedia.⁵⁶

Magazines are a trusted information source of health, lifestyle, and beauty for women.⁵⁷ It is important to investigate how women's magazines use different semiotic modalities to portray skin cancer. Consequently, two research questions were proposed:

RQ1: What are the most prominent relationships between the visual and verbal elements in constructing the multimodal discourses of skin cancer in women's popular magazines?

RQ2: What insights do the combined use of visual images and language reveal about the underlying ideologies of the portrayals of skin cancer in women's popular magazines?

Method

Data Collection

Six women's magazines with high circulations were selected for the study. *Cosmopolitan*, *InStyle*, *Vogue*, and *Marie Claire* are women's fashion and lifestyle magazines with an annual circulation of 3.1 million issues, 1.8 million issues, 1.2 million issues, and 1.0 million issues respectively in 2014.⁵⁸ *Redbook* is a women's fashion and lifestyle magazine, targeting mature women, with an annual circulation of 2.2 million in 2014.⁵⁹ *Health* is a

women's health magazine focusing on exercise and healthy lifestyles with an annual circulation of 1.4 million in 2014.⁶⁰

Articles published in 2014 in the six popular women's magazines served as the population. Six keywords, including skin cancer, melanoma, basal cell cancer, squamous cell cancer, sun protection and sun safety, were searched in the 72 issues (12 issues per magazine) through online archival databases of the six magazines. The keywords were adopted from the study on news coverage of skin cancer by Liu et al.⁶¹

The search of the keywords within the timeframe initially yielded 28 articles. As the study aims to explore the portrayals of skin cancer, articles which discussed the health issue in a marginal manner or merely mentioned the keywords were excluded for analysis. For example, in a personal narrative, the narrator mentioned that "She already knew the name of the woman. Melanie. Not so remote from the name of a fatal form of skin cancer, melanoma."⁶² After careful screening, 11 articles were included for final analysis. In the final sample, 3 articles were from *Cosmopolitan*, 2 from *Marie Claire*, 2 from *Vogue*, 2 from *InStyle*, 2 from *Redbook*, and 1 from *Health* (see Table. Initial Number of Articles and Number of Articles After Screening in Each Magazine).

Table. Initial Number of Articles and Number of Articles after Screening in Each Magazine

Magazine	Initial Number of Article	After Screening
<i>Vogue</i>	4	2
<i>Health</i>	1	1
<i>Cosmopolitan</i>	12	3
<i>Marie Claire</i>	9	2
<i>InStyle</i>	2	1
<i>Redbook</i>	2	2
Total	28	11

Data Analysis: A Multimodal Discourse Approach to the Portrayals of Skin Cancer

RQ1 asked about the most prominent relationship between the visual and verbal elements in the portrayals of skin cancer in women's popular magazines. The theorization of intersemiosis led to co-contextualization (convergence of ideational meaning) and/or re-contextualization (divergence of ideational meaning) in multimodal texts.⁶³ The researcher firstly examined carefully all the verbal and visual elements in each individual article to attain a general understanding of the article. Then, in the second round of reading, the researcher classified the major themes emerged in the texts and images through prioritizing, synthesizing, and abstracting.⁶⁴ Lastly, following the theoretical framework proposed by O'Halloran,⁶⁵ the intersemiotic relationships were analyzed based on the dimensions of convergence and divergence of the ideational meaning conveyed by the visual and verbal elements.

RQ2 sought to find the underlying ideology revealed by the combined use of image and language in the portrayal of skin cancer in women's popular magazines. The research followed the recommendations of Halliday⁶⁶ and Kress and van Leeuwen,⁶⁷ who argued that MDA should view discourses as sociocultural practice. As such, the analysis focused on the socially meaningful tensions and oppositions which could be instantiated in one or more multimodal representations of an issue. Thus, RQ2 was answered based on an analysis of the underlying ideologies and the social meanings by identifying the themes and ideas that consistently emerged in the multimodal portrayals of skin cancer.⁶⁸ In addition, extracts and visual examples would be included to provide evidence for researchers' interpretations.⁶⁹

Findings

A competing relationship between the verbal and the visual discourse was identified in the portrayals of skin cancer in the six women's magazines. Overall, the verbal discourse emphasized the preventative strategies for skin cancer and the harmful effects of risky sun exposure. However, the images encapsulated a competing discourse promoting the attractiveness of a tanned appearance and intentional sun-exposure behaviors. The competing relationship between the verbal and the visual discourse was identified in nine out of eleven articles analyzed and in all the magazines analyzed, except in *Redbook*. The multimodal portrayals of skin cancer in each magazine are delineated in the following section. Nine out of the eleven articles are cited.

Two Competing Discourses: Visual and Verbal Portrayal of Skin Cancer

The competing relationship between the verbal and the visual discourse was prevalent in the portrayal of skin cancer in the six women's magazines. For instance, in an article in *Health*, the verbal messages accentuated the importance of a full-coverage of sun-screen on the body, including the lips, eyes, scalp, and ears.⁷⁰ Expert sources, such as academic

researchers and doctors, were cited in the article, enhancing the credibility of information. The following excerpt represents this predominant discourse in the text:

Scarily, skin cancer on areas with little fat is more apt to spread because it penetrates deeper than it would on a fleshier spot, says Dr. Zeichner. “Dip a cotton swab in SPF lotion and paint it on your part and ears,” suggests Francesca Fusco, MD, a dermatologist in New York City. Or use a sunscreen stick. A nice blowout can come in handy: One Australian study showed that hair worn down gives ears substantial coverage.

However, the focus of the images accompanying the text was different. One image (Figure 1.) depicted a woman sunbathing with her face covered by the straggling shade provided by a straw hat. Her tanned skin stood out because of the sunshine and the nudity of her upper body. Her facial expression added a predominant connotation of relaxation to the image.

Figure 1.

The other image (Figure 2.) presented a woman sunbathing, half-naked on a beach. With all her hair pulled back into a bun, the women tended to get her body tanned as much as possible. Completely ignoring the text which explicitly stated that backs and arms are prime spots for melanoma,⁷¹ the image portrayed a woman baring her arms and back while sunbathing. In addition, the two images were visually dominant, as the whole text was primarily inserted in the upper side of the second picture.

Figure 2.

LOVE YOUR LOOKS | SPF Special

YOU WON'T READ "WEAR BROAD SPECTRUM SPF 30 DAILY"
here, because by now, you know you should. Still, you may need a reminder of why this habit is so important. Some eye-opening: "Up to 90 percent of skin cancers are associated with UV exposure," says Elizabeth Hale, MD, a clinical associate professor of dermatology at the NYU Langone Medical Center. One in five Americans will be diagnosed with skin cancer—which includes deadly melanoma—in their lifetimes. Our hassle-free guide is filled with practical tips on keeping every body part safe. To-do: Read, stock up on SPF, rub!

legs
When we're more likely to develop melanoma on our lower legs and feet than on other parts, probably because they're more exposed to the sun. For everyday, a body lotion with SPF 15 is better than nothing," says Joshua Zeichner, MD, director of cosmetic and clinical research in the department of dermatology at Mount Sinai Medical Center in New York City. Beach days require an extra sunscreen. Don't forget your feet—they're at risk for melanoma too, and very exposed in sandals.

back and arms
These are prime spots for melanoma. To help them, and away from the beach or pool, either on SPF at home in the bath, says Dr. Hale. It takes about 10 minutes to sink in. Dermis profile lotion to sponge for the first coat because you get an even layer of coverage. Have your partner or a friend dry your back, from the top of shoulders on down. They can still get a tan, but they'll be protected. The idea of a one-piece, particularly if it's an order that's wearing this, it's really is around to find a hard, use sunscreen topically with a 360-degree shield to back behind you. Either way, pack a spray for touch-ups every two hours. By now, some men can no longer claim to be waterproof or water-resistant. The truth is, you're never there off. And don't rush the reapplying process. Yes, it's supposed to be quick, but you still need to be thorough. "Hold the bottle 1 to 2 inches away from skin, spray for one to two seconds per part, then rub it in," advises Dr. Zeichner. Avoid applying downward or across of your protection will get blown out to sea.

neck and chest
"Signs of sun damage show up here early in life, perhaps because the skin is more sensitive and often exposed," says Alan Cooper, MD, chief of the department of dermatology at University Hospitals Case Medical Center in Cleveland. Cover the entire region with sunscreen, including the sides of your neck. "That's also where your skin is particularly susceptible to aging and cancer because it doesn't have the benefit of the shadow of your chin, which gives the front of your neck some protection," says Dr. Zeichner. If you're wearing a ponytail, be sure to smear the back of your neck.

face
It's a common spot to develop basal and squamous cell carcinoma, the most prevalent forms of skin cancer. And we hardly need to mention that dark, wrinkled, fine lines and crow's feet that come from sun exposure. "Don't count on your makeup," cautions Dr. Hale. It may contain SPF, but it's not enough to achieve a significant level of protection. Your best bet is a sunscreen that's lightweight and oil-free, especially if it's in a spray form. Alternatively, find SPF in multitasking daily moisturizer. And choose a hat over a baseball cap, which doesn't cover the sides of the face or ears.

eyes
If you're regular sunscreen for legs on a beach or lake, try a formula with zinc oxide or titanium dioxide, both of which are unlikely to irritate eyes. Wear sunglasses that block 100 percent of UV rays, the best defense against cataracts and other eye damage caused by rays.

scalp and ears
So clearly, skin cancer on men with shorter hair is more likely to spread because it penetrates deeper than it would on a longer head, says Dr. Zeichner. "Use a cotton swab to apply SPF to your scalp and ears," suggests Francesca Fusco, MD, a dermatologist in New York City. Or use a sunscreen stick. It also shows skin cancer is fairly common on the scalp. One illustration study showed that hair worn down gives more substantial coverage.

KNOW THE TROUBLE SPOTS
The average adult has 10 to 40 moles, so the National Cancer Institute (NCI) advises that you should check your skin for changes. When you do, it's important to look for changes, especially on areas like these:

MOLES TO GET CHECKED, SIZE, AND	MOLES THAT ARE TYPICALLY BENIGN ARE:
Larger than a pencil eraser	Smaller than a pencil eraser
Irregular shape	Round or oval
Asymmetrical	Symmetrical
Uneven color	Even color
Starting to itch, bleed, or change shape	Not changing over time

lips
A full-lip lipstick with SPF 30 lip balm. If there's more hands, use a tinted lip balm. Avoid glossy lip colors if you're spending a lot of time outside, notes Dr. Hale. Gloss—over if it has SPF—protects the sun and can increase the damaging effects of UV rays like body oil can.

Good words to keep in mind:
SPF 30

The juxtaposition between the verbal and the visual messages was also evident in *Cosmopolitan*. For example, in one article, the text articulated that alcohol increases skin sensitivity, which may lead to higher risks of sunburn and even melanoma.⁷² The text also cautioned the readers to reapply sunscreen regularly to prevent sunburn and skin cancer.⁷³ However, the image (see Figure 3.) depicted a man and a woman leisurely drinking and sunbathing besides a swimming pool. Despite the caution emphasized in the verbal discourse, the image focused on drinking and intentional sunbathing behaviors, which was in sharp contrast to the theme conveyed by the text.

Figure 3.

Similarly, in another article in *Cosmopolitan*, the text focused on skin cancer prevention, including controlling the time of sun exposure, using sunscreen, and conducting skin exams annually.⁷⁴ Moreover, the verbal messages also delineated the causal relationship between UV radiation and skin damage.⁷⁵ The following excerpt represented the predominant discourse conveyed by the verbal messages:

As I suspected, most of the derms I talked to (mine included) had a clear-cut answer. “Absolutely not,” says Jennifer MacGregor, MD, clinical professor of dermatology at Columbia University. “Any change in skin color, whether it’s a tan or burn, is a sign of skin damage.” That’s because as soon as UV rays penetrate skin, pigment production goes into overdrive, acting as a protective shield. . . . UV radiation causes DNA mutations that can lead to all three types of skin cancer, including the most fatal and increasingly common one among 20somethings: melanoma.

An image was employed in the article, depicting the author of the article sunbathing on a beach. On the author’s face, three stripes of colored zinc sunscreen were applied in a playful way. Consistent with the playful tone, the author was smiling while sunbathing. In contrast to the negative and serious tone in the verbal messages, the image accompanying the text connoted a playful valence. Moreover, instead of reinforcing the stay-sun-safe cues in the verbal discourse, the visual discourse underscored intentional sun exposure behaviors.

In an article in *Marie Claire*, the verbal messages emphasized the importance of prevention, such as using sunscreen and wearing a hat.⁷⁶ However, the image depicted intentional tanning behaviors and focused on a tanned appearance. In the picture, a woman was sunbathing on a beach with other people swimming and running in the background. The sunshine was strong. The woman’s skin tone was dark tan. Moreover, the ocean and other natural sceneries conveyed an implicit connotation of relaxation and hedonistic activity. In this case, the images reflected the socially constructed meaning of a tan – a healthy pursuit of outdoor recreation and the ability to travel to sunny resort.⁷⁷

An article from *Vogue* serves as another example. The text is a health campaign for melanoma prevention, presenting a personal narrative of a melanoma survivor. The narrative suggests that people with darker skin tone are also susceptible to skin cancer.⁷⁸ Sunscreens should be used every day.⁷⁹ The following excerpt demonstrates the predominant discourse deriving from the text:

Today I know that sun exposure doesn't discriminate against skin color and can cause dryness, brown spots, wrinkles, and worst of all, melanoma-the deadliest form of skin cancer and one of the most common cancer among women under 40..... So applying sunscreen throughout the day is my daily ritual. And it should be yours, too.

Along with the text, an image of the patient was included. The image was tightly framed to contain just the woman's face, shoulders, and arms, highlighting the women's radiant bronzed skin tone. The woman's attractiveness was reinforced through her nudity and her glowing hair. The picture may constitute an unrealistic ideal for people who struggle to manage their skin cancer complications. With no additional visual context, skin cancer was juxtaposed against positive representations of skin beauty and a tanned appearance.

Consumerism: Blurring the line between information and advertising

Concurrent with text-image dynamic, the multimodal portrayal of skin cancer also revealed the prevailing consumerism in the society, where the line between information, advertisements, and entertainment has been blurred.⁸⁰ For example, in an article in *Marie Claire*, the visually dominant image (in large size and in color) portrays Miranda Kerr in a bikini, smiling on a beach (see Figure 4). The caption in the image suggests that the super model was wearing a sunscreen she developed. Three additional images are positioned below the picture of Miranda Kerr to illustrate the sunscreen's preventative effects for UV damage. The verbal discourse supplements the visual discourse by emphasizing the importance of sun protection and the popularity of sunscreen in the backstage of fashion shows.⁸¹ Moreover, a couple of sunscreen products are introduced by discussing several supermodel's sunscreen choices.

Figure 4.

In the same vein, an article in *Vogue* also included advertisements when introducing factual information about skin cancer. The text addressed the prevalence of skin cancer in the U.S. populations.⁸² Expert sources were cited to justify the importance of preventative methods for skin cancer. One picture employed along with the text depicted a woman in a Chanel swimsuit sunbathing besides a swimming pool wearing a hat by Yestadt Millinery. Another picture (Figure 5.) featured a woman with tanned skin and two products that promised to provide a healthy glow.

Figure 5.

While the competing text-image relationship was repeated across the six women's magazines, it is important to note that there were three exceptions. However, even in the three exceptions, consumerism still appeared to be a driving force in constructing the multimodal portrayal of skin cancer. For instance, an article in *Redbook* introduced a pill that can decrease UV damage and post-sun skin irritation.⁸³ Reinforcing the commercial advertising of the pill, the images accompanying the text represented a sun-like figure that were composed of yellow and orange pills (see Figure 6.).

Figure 6.

In another article in *Redbook*, the text suggests using sunscreen all the time even when in the office and on cloudy days.⁸⁴ In addition, the text underlined that tanning is not a sign of health but a result of UV radiation. Two images were included in the article. On the first page of the article, one image was placed at the bottom. The image depicted a sand sculpture symbolizing red-cross, which connoted caution and medication. On the second page, an image was placed in the center. The image introduced sunscreens from four brands with detailed information about the features and textures.

Similarly, in the article retrieved from *InStyle*, the text addressed ten sun protection methods, such as using sunscreens, wearing long-sleeve clothes, and monitoring UV index on smartphone apps.⁸⁵ However, the text primarily focused on commercial advertising of product, such as sunscreens, nail polish, fashion clothes, hair styling cream, and antioxidant pills of specific brand. Congruent with the verbal discourse, the images were also predominantly advertisements. Specifically, the sun protection methods were visually represented in two images with two female celebrities wearing sunglasses, hats, and long-sleeve clothes. However, 11 images were used to promote the products that were discussed in the text.

Discussion

Drawing upon the contextual approach of MDA, the findings of the study unveiled a competing relationship between the verbal and visual messages. The dominant discourse emerged from the text emphasized the prevalence of skin cancer in the U.S. population and underlined various prevention methods for sunburn and skin cancer. Paradoxically, the

images normalized intentional sun exposure and focused on positive representations of a tanned appearance, which reflects and could reinforce the pro-tan norms. Additionally, consumerism was also a predominant theme in the overall multimodal discourse surrounding skin cancer.

The divergence of the two semiotic discourses indicates a tendency to place women's health at risk by imposing the pro-tan norms on the female body. Instead of connoting skin-cancer-related risks, the images focused on the wellness and desirability of a tanned appearance, promoting beauty ideals, such as bronzed skin,⁸⁶ youthfulness and thinness.⁸⁷ From a perspective of objectification theory, the dominant standards associated with the gendered body image impose a persistent pressure on girls and women to internalize such beauty standards.⁸⁸ On one hand, self-objectification could lead to feelings of shame and anxiety when women fail to meet a cultural ideal, even if it is an unrealistic one.⁸⁹ On the other hand, women may tend to believe that conforming to a cultural ideal could lead to power, happiness, and life success.⁹⁰

Fredrickson and Roberts⁹¹ maintained that certain situations and stimuli can temporarily exacerbate self-objectification by escalating the salience of women's physical appearance. In the context of skin cancer, external appearance was visually represented as more salient than physical health, at least temporarily, in defining women. Additionally, no models with a natural dark skin tone were included in the images. This may reflect and reinforce the tendency that pro-tan attitudes are particularly prominent in fair skinned populations.⁹²

In addition, the representations of ocean, beach, swimming pool, and other outdoor symbols situated the topic of skin cancer in a context of leisure time and recreational activities. Such visual cues could lead to an underestimation of the detrimental outcomes of behaviors that place an individual's health at risk.⁹³ As such, the visual discourse of skin cancer may trigger overly positive beliefs about tanning and an underestimation of the negative health outcomes of unprotected sun exposure.

The divergence of the verbal and visual discourses might be explained by the use of stock image and image bank in magazine editing. Stock images are commonly photos cheaply purchased from image bank. Stock images usually connote beauty, fun, luxury, and consumerism. In addition, they are usually generic, abstract, decontextualized, and timeless, which allows image bank users to re-use and use the pictures in a variety of contexts. Moreover, in contemporary publishing, images are generally used as part of the page layout, not a device conveying supplementary and relevant information to the accompanying text.⁹⁴ David Machin used an example from a Vietnamese women's magazine to demonstrate such tendency—a text focusing on mouth cancer was illustrated by a generic image depicting a young woman smiling and lightly touching her lips.

In addition to the use of stock image, the cultural values of materialism and consumerism may also play a role in shaping the text-image dynamics found in this study. According to Ekins,⁹⁵ consumerism is a cultural ideology which defines personal happiness

and social status based on the amount of consumption and the possession of goods and services. The mass media are a powerful engine that orients cultures towards consumerism.⁹⁶ Popular magazines in particular play a prominent role in fostering consumerist values.⁹⁷ Lending support for such propositions, the findings of this study suggested that the informational messages about skin cancer were commonly subsumed by commercial advertising of product.

Practical Implications

The findings of this study underscore several potential courses of action for health professionals, health journalists, and editors of women's popular magazines. First, the findings of this study revealed that skin-cancer-related information was rare in women's magazines, which is consistent with the findings of previous work (e.g., Basch et al.,⁹⁸; McWhirter & Hoffman-Goetz⁹⁹). Specifically, in a total of 72 issues, only 11 articles were devoted to skin cancer. As women's magazines are a trusted source of health information,¹⁰⁰ including more information about skin cancer may help to raise public awareness.

Second, few articles addressed the mortality rates of skin cancer, which is consistent with the findings of previous work. For instance, Jensen, Moriarty, Hurley, and Stryker¹⁰¹ found that the incidence and mortality data were rarely reported in the media coverage of cancers. In addition, the voice of people with skin cancer and their families were absent, lacking discussions on the personal and financial burden of skin cancer.

Finally, few articles addressed the health risks of indoor tanning, which would not help to enhance women's awareness of the deleterious effects of using tanning facilities. In addition, serving primarily female clientele, women's magazines could contribute to empowering women to fight the narrowly defined female attractiveness, which merely emphasizes on certain bodily features and physical attractiveness. The importance of physical health needs to be promoted in skin-cancer-related messages and health campaigns. This could encourage women and female adolescents to counter-argue the pro-tan and appearance-centric messages.

Limitations and Directions for Future Research

It is important to note that this study has several limitations. First, the sample size was relatively small. In addition, this study only focused on women's popular magazines. Future studies could include magazines with different target audiences to generate a more diverse sample. In addition, continued investigations are warranted to explore and compare the portrayal of skin cancer in magazines of different genres, such as scientific magazines and news magazines.

Second, as the sample only included editorial articles and did not include advertisements, the findings could not represent the full array of the portrayals of skin cancer

in women's magazines. Future research could examine skin cancer related advertisements and other non-editorial content.

Finally, the author's interpretations of the multimodal portrayals of skin cancer may be different from that of the readers. For instance, one could argue that an image presenting a woman sunbathing on a beach may anchor the topic in the accompanying text. In addition, continued explorations, such as experimental studies, are needed to test the effects of the multimodal portrayal of skin cancer.

Conclusion

Overall, the study provides considerable insights to women's magazines' multimodal portrayal of skin cancer. The findings of the study suggested that more credible and informational messages need to be incorporated in the multimodal representations of skin cancer. In addition, the portrayal of skin cancer appeared to mirror the pro-tan attitudes and gendered beauty ideals. Given that women's magazines are a trusted information outlet of health, they can play a more active role in encouraging healthy skin cancer -related behaviors. In addition, as visual elements become more and more prominent in the current communication landscape, continued investigations are warranted to explore the multimodal portrayal of health-related topics.

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