

To Die For: Fashion, Friends, and Risks and Benefits of Tanning

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Risk is an inherent part of consumer behavior and has been studied for over 60 years (e.g., Bauer, 1960). Consumers engage in many risky behaviors (e.g., tanning) to change their appearance. People tend to underestimate their vulnerability to risks associated with their actions (i.e., tanning), yet personal actions are known to be related to objective risk (Weinstein, 1984). Studying risk beliefs is important because they sometimes motivate preventive behaviors (Huang et al., 2020). Tanning is personally risky and costly to society. The Center for Disease Control and Prevention reported that UV exposure from sunlight or tanning beds is the most avoidable and important risk factor for skin cancer, the most common cancer in the U.S. (Cancer Facts & Figures, 2021). Annually, skin cancer costs an estimated \$8.1 billion to treat and results in \$4.5 billion in lost productivity (The Surgeon General's Call, 2014).

While tanning entails skin cancer risk, there are benefits. A tanned appearance is related to increased perceived attractiveness (e.g., Chung et al., 2010) and tanning leads to increased positive mood (Myrick et al., 2020). Moreover, the belief that tanned women are fashionable is related to positive attitudes toward tanning and perceived tanning benefits (Cho et al., 2010). Myrick et al. also find that among young adults, friends' influence and mood enhancement are positively related to previous indoor tanning, while risk is negatively related. More generally, perceived risk is related to both positive and negative emotion (Chaudhuri, 1997).

Attribution theory explains why people may underestimate their risk. In general, personal actions (e.g., tanning) are perceived as controllable and people tend to be overly optimistic about controllable events (Weinstein, 1984). Hence, potential health risks (e.g., skin cancer) are likely to be underestimated since people tend to misjudge the negative effects of their actions.

The purpose of this research was to determine the role of antecedents (fashion interest, influence of friends, risk and benefit beliefs, negative and positive emotions) in predicting tanning frequency. Ten hypotheses were developed: fashion interest (H1) and friends' influence (H2) will be positively related to tanning benefit beliefs. Friends' influence will be negatively related to tanning risk beliefs (H3). Benefit beliefs will be positively related to positive emotion (H4); risk beliefs will be positively related to negative emotion (H5). Fashion interest (H6) and benefit beliefs (H7) will be positively related to tanning frequency and risk beliefs (H8) will be negatively related to tanning frequency. Positive emotion will be positively related to tanning frequency (H9) and negative emotion will be negatively related to tanning frequency (H10).

Method

Instrument Development. Fashion interest items were adapted from Gutman and Mills (1982). Friends' influence items were adopted from Cafri et al. (2008). Tanning benefit and risk beliefs were adapted from literature and self-developed. Consumption emotions (positive and negative emotion) were measured using items from Chaudhuri (1997). Tanning frequency was assessed using a single item of self-reported tanning frequency. All items used a 7-point rating scale format. Demographic items (age, gender, ethnicity, academic standing) were included.

Procedure. Undergraduate students at a large U.S. university were recruited to complete an online survey; they were provided a link and participated in exchange for extra course credit.

Results

Demographics. After deleting responses from participants who did not tan, there were 140 usable responses. Participants were primarily women (n=122, 87.1%) and Caucasian (n=117, 83.6%). Freshmen (57.9%) and sophomores (25%) were the majority of participants. Mean age was 18.9 years ($SD=1.06$; $Range=18-22$).

Preliminary analyses. Exploratory Factor Analysis (EFA) was conducted on multi-item measures to confirm dimensionality of the original scales. EFA on 36 belief items yielded 2 factors (benefits and risks). EFA on 7 consumption emotion items also yielded 2 factors (positive and negative), confirming dimensionality of the original scales. All had adequate reliabilities.

Hypothesis testing. A single group path analysis using Maximum Likelihood Estimation indicated an acceptable model fit with $\chi^2(10) = 16.564, p = .088, IFI=.98, TLI=.95, CFI=.97,$ and $RMSEA=.069$. Results of path analysis showed that both fashion interest ($t = 4.05, p < .001$) and friends' influence ($t = 5.62, p < .001$) were positively related to perceived benefits, supporting H1 and H2. Contrary to expectations, friends' influence was not significantly related to perceived risks ($t = -.79, p = .43$), failing to support H3. As predicted, perceived benefits were significantly related to positive emotion ($t = 10.29, p < .001$), while perceived risks were significantly related to negative emotion ($t = 8.11, p < .001$), supporting H4 and H5. Out of five predictors of tanning frequency, only positive emotion and perceived risks were significant. As expected, positive emotion was positively related to tanning frequency ($t = 4.60, p < .001$), whereas perceived risks were negatively related to tanning frequency ($t = -2.37, p < .05$), supporting only H9 and H10. Whereas positive emotion had a significant direct influence on tanning frequency, negative emotion had no influence on tanning frequency. Decomposition of effects further revealed that perceived risks (-) and positive emotion (+) were directly related to tanning frequency, while fashion interest (+), friends' influence (+), and perceived benefits (+) were indirectly related to tanning frequency.

Discussion and Conclusions

The current study offers empirical evidence supporting attribution theory in the context of risky behaviors. Consistent with attribution theory, perceived benefits and resultant positive emotion overshadowed perceived risks and resultant negative emotion. Although perceived risks were negatively related to tanning frequency to some extent, the positive direct relationship from positive emotion and the positive indirect relationship from perceived benefits were undoubtedly

stronger than perceived risks or negative emotion. Despite the increasing public awareness of skin cancer risks from tanning, participants' decision to tan despite known risks appears to be driven by their interest in fashion and in attractiveness of tanned skin (Chung et al., 2010) and also normalized by their friends. Participants perceived risks to tanning, which further led to negative emotion. Nonetheless, negative emotion did not dissuade participants from tanning.

The results of the study offer new insights into understanding the psychological and social underpinnings of decision-making of risky behaviors. This study suggests that a more reasoned approach of educating risks associated with tanning would be more persuasive in discouraging tanning than an emotion-laden campaign approach instilling negative emotion. Future research can further explore personal characteristics that affect risky behaviors.

References

Bauer, R. A. (1960). Consumer behavior as risk taking. In *Proceedings of the 43rd National Conference of the American Marketing Association, June 15, 16, 17, Chicago, Illinois, 1960*. American Marketing Association.

Cafri, G., Thompson, J. K., Roehrig, M., Rojas, A., Sperry, S., Jacobsen, P. B., & Hillhouse, J. (2008). Appearance motives to tan and not tan: Evidence for validity and reliability of a new scale. *Annals of Behavioral Medicine, 35*(2), 209–220.

Cancer Facts & Figures 2021 (2021). American Cancer Society; 2021. Retrieved from: <https://www.cancer.org/research/cancer-facts-statistics/all-cancer-facts-figures/cancer-facts-figures-2021.html>

Chaudhuri, A. (1997). Consumption emotion and perceived risk: A macro-analytic approach. *Journal of Business Research, 39* (2), 81–92.

Cho, H., Lee, S., & Wilson, K. (2010). Magazine exposure, tanned women stereotypes, and tanning attitudes. *Body Image, 7*(4), 364-367.

Chung, V. Q., Gordon, J. S., Veledar, E., & Chen, S. C. (2010). Hot or not-evaluating the effect of artificial tanning on the public's perception of attractiveness. *Dermatologic Surgery, 36*(11), 1651-1655.

Gutman, J., & Mills, M. K. (1982). Fashion life-style, self-concept, shopping orientation, and store patronage: An integrative analysis. *Journal of Retailing, 58*(2), 64-86.

Myrick, J. C., Noar, S. M., Sontag, J. M., & Kelley, D. (2020). Connections between sources of health and beauty information and indoor tanning behavior among college women. *Journal of American College Health, 68*(2), 163-168.

Huang, X., Dai, S., & Xu, H. (2020). Predicting tourists' health risk preventative behaviour and travelling satisfaction in Tibet: Combining the theory of planned behaviour and health belief model. *Tourism Management Perspectives, 33*, 100589.

The Surgeon General's Call to Action to Prevent Skin Cancer (2014). Washington, DC: U.S. Dept of Health and Human Services, Office of the Surgeon General. Retrieved from: <http://www.surgeongeneral.gov>.

Weinstein, N. D. (1984). Why it won't happen to me: Perceptions of risk factors and susceptibility. *Health Psychology, 3*(5), 431-457.