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Novel Evidence-Based High School Melanoma Prevention Curriculum for High School Students Improves Knowledge, Attitudes, Confidence, and Behaviors

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Abstract

Background

Despite having the 8th highest rate of melanoma in the country, Oregon currently has no formal statewide, school-based educational curriculum addressing the prevention and early detection of melanoma in high school students. Early intervention is key to early detection and reduction of melanoma morbidity and mortality.

Methods

The War on Melanoma™ Schools Campaign was developed with Cognitive Theory of Multimedia Learning principles to teach high school students in Oregon about melanoma prevention and early detection. During the 2020-21 school year, 5,594 students across 44 Oregon high schools participated in the curriculum and data has been analyzed for 162 students. Students received pre- and post-intervention surveys to measure knowledge and behavioral change intention.

Results

Students demonstrated improvement in their knowledge of melanoma and skin cancer, as knowledge questionnaire scores increased from 76.2% to 84.0% post-curriculum ($p < 0.001$). A statistically significant increase was observed in students self-describing as “not likely at all” to use a tanning bed (82.1% pre-curriculum to 91.4% post-curriculum, $p < 0.001$). Students gained confidence in self-skin checks for signs of skin cancer (37.6% to 74.7% post-curriculum self-rating as “fairly” or “extremely” confident, $p < 0.001$).

Confidence regarding knowing when to have a concerning skin lesion evaluated also increased (53.1% “not at all” or “not very” confident to 71.6% “fairly” or “extremely” confident post-intervention, $p < 0.001$).

Conclusions

The results underscore knowledge gaps among Oregon high schoolers in their awareness about certain melanoma risk factors, characteristics of potentially malignant skin lesions and methods for detection, all of which improved after participating in our curriculum. This curriculum shows evidence of promoting melanoma prevention and early detection in high school students with the long-term goal of decreasing rates of melanoma morbidity and mortality in Oregon.