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Examining a Web-Based Behavioral Intervention to Promote Sun Protection and Skin Self-Exams in Melanoma Patients

Rutgers Cancer Institute of New Jersey researchers present findings at national meeting

New Brunswick, N.J., March XX, 2019 – Researchers at Rutgers Cancer Institute of New Jersey and University of Virginia Center for Behavioral Health and Technology have found that a web-based intervention targeting sun protection behaviors and skin self-examinations in melanoma patients is effective in promoting short-term improvements in these activities. Findings from the work are being presented as part of an oral presentation at the Society of Behavioral Medicine Annual Meeting taking place this week in Washington, D.C.

According to the National Cancer Institute, more than 1.2 million people in the United States have a personal history of melanoma – considered the deadliest of skin cancers – and are thus at an increased risk for disease recurrence and new skin cancers. Research has shown that a majority of these individuals do not sufficiently protect themselves from the sun or follow recommendations to conduct thorough skin self-exams that can facilitate early disease detection. Results of several studies have shown promise with regard to improving patients' engagement in skin self-examinations (Janda, 2014; Robinson 2007, 2014, 2016; Loescher et al., 2010), but there is a lack of intervention studies targeting sun protection behaviors in this at-risk population. Aiming to promote both sun protective behaviors and skin self-exams among melanoma patients, Elliot J. Coups, PhD, a behavioral scientist in the Cancer Prevention and Control Program at Rutgers Cancer Institute, and colleagues developed an Internet intervention called *mySmartSkin*.

A sample of 384 individuals (40.9 percent response rate; median age 61.5 years) who were diagnosed and treated for stage 0 to 3 melanoma from three to 24 months previously were recruited to the study. Participants were randomized to receive their usual clinical care or to have access to the *mySmartSkin* intervention that promoted sun protective behaviors as well as skin self-examinations including use of an online body mole map. Self-reporting of sun protective measures (sunscreen, shade, protective clothing) and skin self-exams were assessed prior to the start of the intervention and eight weeks after.

There was a significant increase in engagement of sun protection behaviors for those who participated in *mySmartSkin* compared to the usual care (control) group over the eight-week period. At the eight-week follow up, the percentage of individuals who had conducted one to two skin self-examinations was significantly higher in the web-based intervention group (47.5 percent) compared to the control group (23.9 percent). Also, the percentage of participants who had conducted a thorough skin self-exam increased significantly in the *mySmartSkin* group from the

start of the intervention (4.9 percent) to eight weeks (29.5 percent) compared to the control group (9.5 percent and 7.5 percent, respectively).

“This project is somewhat unique in targeting both skin surveillance and sun protection behaviors among people diagnosed with melanoma. Results to date suggest the *mySmartSkin* intervention can help patients improve these important skin cancer-related behaviors,” notes Dr. Coups, who is also an associate professor of medicine at Rutgers Robert Wood Johnson Medical School. “Our use of a web-based approach for delivering this intervention will facilitate future efforts to disseminate it to a broader group of melanoma patients and to potentially examine its impact on other groups at increased risk for melanoma, such as first-degree relatives of melanoma patients.” Coups notes that future study on this topic should focus on longer-term behavioral outcomes and examination of the intervention’s mechanisms and whether it is equally effective for different patient subgroups.

Along with Coups, the other authors on the work are Baichen Xu, MS, Rutgers Cancer Institute; Sharon L. Manne, PhD, Rutgers Cancer Institute and Rutgers Robert Wood Johnson Medical School; Michelle Hilgart, MEd, PhD, and Lee M. Ritterband, PhD, both University of Virginia Center for Behavioral Health and Technology.

About Rutgers Cancer Institute of New Jersey

As New Jersey’s only National Cancer Institute-designated Comprehensive Cancer Center, Rutgers Cancer Institute, along with its partner RWJBarnabas Health, offers the most advanced cancer treatment options including bone marrow transplantation, proton therapy and CAR-T cell therapy. Along with clinical trials and novel therapeutics such as precision medicine and immunotherapy – many of which are not widely available – patients have access to these cutting-edge therapies at Rutgers Cancer Institute of New Jersey in New Brunswick, Rutgers Cancer Institute of New Jersey at University Hospital in Newark, as well as through RWJBarnabas Health facilities.

Along with world-class treatment, which is often fueled by on-site research conducted in Rutgers Cancer Institute laboratories, patients and their families also can seek cancer preventative services and education resources throughout the Rutgers Cancer Institute and RWJBarnabas Health footprint statewide. To make a tax-deductible gift to support the Cancer Institute of New Jersey, call 848-932-8013 or visit www.cinj.org/giving.

Conference Program

<https://www.sbm.org/UserFiles/file/am19-pro-v11.pdf>

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