Photoaging apps in waiting rooms: A new opportunity for skin cancer prevention

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Introduction: Around 90% of skin cancers are caused by UV exposure. While dermatologists agree on the importance of primary prevention, busy clinicians often lack time and interventions at hand. Especially middle-aged men and HIV-positive patients under immunosuppressive therapy are at risk. A randomized controlled trial by Mahler et al. demonstrated increased sun-protective behavior at 4-5 and 12 months follow-up by the help of UV-photographs, in which the current damage of UV on the users’ own face is shown in young adults. However, the polaroid-photographs were captured and altered requiring the time of another person, appear technologically outdated and are not freely available.

Aim: We took advantage of the waiting room of our HIV outpatient clinic and a free photoaging app, in which a 3D-animated selfie is altered to predict future appearance, to develop a skin cancer prevention intervention that aims to expose the large majority of patients visiting a healthcare provider.

Methods: A tablet with the 3D-photoaging app running was placed on a table in the middle of the waiting room and connected (mirrored) with a large monitor hanging on the opposite wall (Figure-1). An interviewer was placed in the room who encouraged all patients to try the app if they would not do so themselves after 30 seconds of waiting time. All participants were asked to fill in an anonymous questionnaire measuring their perceptions of the intervention and sociodemographic data.

Results: 272 patients were counted in a waiting room over 13 days (m=207/76.1%). 202/74.3% of the participants were encouraged to try the app after 30 seconds of entering; 20/7.6% tried it themselves within 30 seconds of entering; 44/16.2% patients waited outside the room or for less than 30 seconds. A total of 119 patients tried the app and agreed to fill out a questionnaire thereafter (Fitzpatrick skin type 1 or 2=44/37.0%; male=84/70.6%; median age=48; range=24-74 years). 105/89.2% said the intervention motivated them to increase sun protection (m=74/89.2%; f=31/91.2%), to avoid indoor tanning beds (m=73/87.9%; f=31/91.2%) and that they perceived the intervention as fun (m=83/98.8%; f=34/97.1%). 46/16.9% watched another patient without trying it themselves, so a total of 165/60.7% of the 272 patients visiting our waiting room were exposed to the intervention (average waiting time=19.54 minutes).

Conclusion: Photoaging apps implemented in waiting rooms provide a novel opportunity to motivate a large fraction of patients who visit a healthcare setting to increase their UV-protection behavior.

Biography
Titus J Brinker is a Professor at Department of Translational Oncology, German Cancer Research Center (dkfz), University of Heidelberg, Germany.

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