

Patients Show Less Trust in Preventive Care Interventions Suggested By AI

A Singapore-based study found that people show less trust in health interventions suggested by artificial intelligence compared to those same interventions recommended by human experts.



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By [Shania Kennedy](#)

September 13, 2022 - Researchers at Nanyang Technological University, Singapore (NTU Singapore) have [found](#) that individuals exhibit less trust in artificial intelligence (AI)-suggested preventive care measures than those from health experts, but emphasizing human involvement in AI-suggested interventions may help.

<https://healthitanalytics.com/news/patients-show-less-trust-in-preventive-care-interventions-suggested-by-ai>

The study defines preventive care interventions as activities that reduce risks to health, like getting regular health screenings, increasing physical activity, and getting vaccinated. The researchers examined 15,000 users of a mobile health application in South Korea to evaluate their perceptions of these interventions when prompted by AI versus a health expert.

App users in the study received pop-up notifications encouraging them to walk a certain number of steps. The app then measured how many users accepted the recommendation and the number of steps they walked.

The study participants were divided into three groups — an AI-suggested intervention group, a human-suggested intervention group, and a neutral intervention group, with 3,000 users in each. Each user's step recommendation was generated using AI, but the pop-up notification was slightly different based on the group. The neutral intervention group served as the study's control, and its notifications made no mention of an AI or a health professional.

The researchers analyzed user behavior over the course of a week to assess the acceptance and effectiveness of each type of intervention. Overall, 19 percent of users who received the AI-suggested intervention accepted it, and 10 percent of them achieved their step goal. However, these rates were significantly higher in the human-suggested intervention group, with 22 percent accepting the intervention and 13 percent meeting their goal.

To investigate these trends further, the researchers extended their study to include two more groups of 3,000 users of the same mobile app. The first group received an intervention notification that indicated the use of AI in conjunction with a health expert, while the second group received a notification that explained how the AI generated its recommendation.

Users in the group that received recommendations based on an AI in conjunction with a health expert were more accepting of the intervention than those in the AI-only or health expert-only groups, with 27 percent of users accepting the intervention. In addition, 19 percent achieved their step goal.

Those in the group that received explanations of how the AI generated its recommendation also had more favorable acceptance and achievement rates than those in the AI-only and health expert-only groups. In total, 21 percent of users accepted the intervention and 13 percent achieved their goal.

These findings indicate that emphasis on the human element of AI in healthcare is key to leveraging the technology more effectively and improving outcomes, the researchers noted in the [press release](#). They also stated that their findings have the potential to improve the effectiveness of future AI-prompted preventive care interventions.