Computer-Generated Doctor Explains Test Results

Imagine if you were able to view a video in which your physician would explain your medical test results in layman terms and also use graphics to compare your test scores with ideal scores. Also imagine, if they could convey your risk of heart attack, stroke or other serious medical condition.

Scientists at the University of Illinois' Beckman Institute for Advanced Science and Technology and Carle Foundation Hospital's Research Institute may have just made this possible. They have developed a computer-generated physician who can explain diabetes and cholesterol test results to patients through videos that can be viewed on electronic medical record portals.

The information provided through these videos would be quite similar to that which patients would receive during a routine visit to their doctor. The goal of the videos is not to replace but to supplement physician-patient interaction and to promote patients' understanding of their health conditions. Patients can view their test scores graphically and they will also have a physician telling them what those scores mean.

Lead author and U. of I. educational psychologist Daniel Morrow explains that patient portals have tremendous potential but are still underutilised. If used effectively, they can expand patient-centred care and could enable patients to have easy access to information related to their health, treatment and medications. A primary reason why these portals remain underutilised is because they are designed in a manner that may be challenging for people, especially older adults. As people age, their ability to understand and interpret numeric data declines.

"Because older adults are often self-managing chronic illnesses, they are the most frequent users of medical services and might benefit the most from access to their test findings and to educational and motivational health information," said co-author Dr. William Schuh, Carle's chief medical information officer.

Source:University of Illinois at Urbana-Champaign
Image Credit: Thomas Huang and the Image Formation and Processing Group

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