Survey respondents wary of robot dentists

By Ginger Pinholster, Embry-Riddle Aeronautical University

An online survey regarding patients’ perceptions of robotic dentistry was one of many Embry-Riddle research projects to be presented during the 2018 International Symposium on Human Factors and Ergonomics in Healthcare conference, March 26-28 in Boston.

In an online survey of 502 individuals (260 female), participants were “significantly less willing to undergo more invasive procedures, such as gum surgery and a root canal, and significantly more willing to undergo procedures such as tooth cleaning or whitening performed by a robot,” reported Stephen Rice, associate professor of human factors. Moreover, the promise of half-price dentistry increased participants’ willingness to accept dental care from an autonomous robotic dentist, Rice and his graduate students explained at the conference.

In 2017, a robotic dentist in China fitted two dental implants into a woman’s mouth. In addition, a Miami, Fla.-based company, Neocis, announced last year that it had received clearance from the U.S. Food & Drug Administration to introduce a robotically assisted dental surgical system called Yomi.

Robotic dentists have the potential to improve the precision of different dental procedures, Rice said. Such technology could make dental care more accessible in rural or otherwise underserved areas. Finally, just as aircraft auto-pilot systems allow pilots to focus on safety, Rice added, robots could free up dentists to continuously improve health-care practices and protocols.

The research presented at the HFES conference, “Factors Affecting Consumers’ Acceptance of Robotic Dentists,” was prepared by Rice and Anania, with fellow graduate students Mattie N. Milner, Nadine Ragbir, Matt Pierce and Nathan W. Walters.