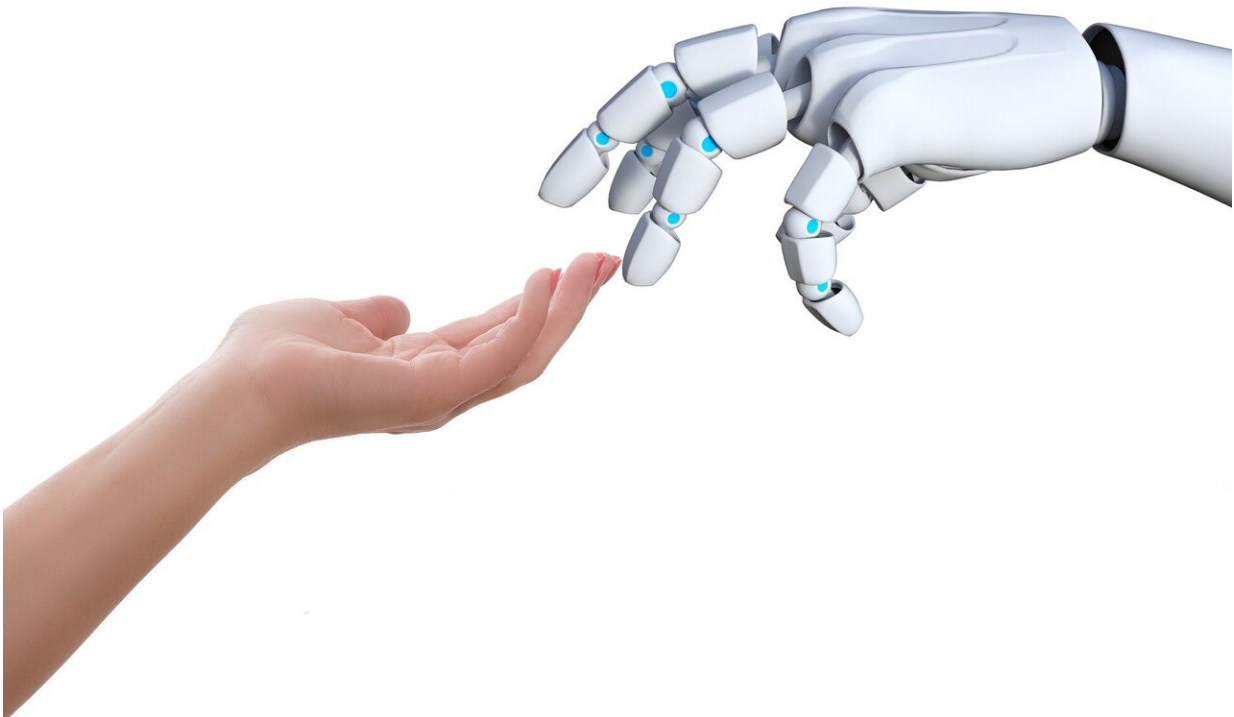


Can robot-inspired computer-assisted therapy benefit children with autism?

May 15 2024



Credit: CC0 Public Domain

A new study published in the *Journal of Computer Assisted Learning* introduces a novel robot-inspired computer-assisted adaptive autism therapy (RoboCA3T) that leverages the natural affinity of children with autism spectrum disorder towards technology and robots.

RoboCA3T harnesses the potential of robot-assisted therapies by incorporating robot avatars and integrating them with computer-assisted therapies through a web-based solution.

When investigators assessed Childhood Autism Rating Scale scores before and after the [intervention](#), they noted significant enhancement in joint attention, or the ability to coordinate attention and share a point of reference with another person. Scores also indicated improvements in imitation skills, indicating that the [treatment](#) helped children to observe and mirror the behaviors of others.

"The research contributes significantly to the ongoing effort to develop cost-effective, time-efficient, evidence-based treatments for children with [autism spectrum disorder](#)," said corresponding author Sara Ali, Ph.D., of the National University of Sciences and Technology, in Pakistan. "RoboCA3T prioritizes personalized content delivery along with integration of AI-based automatic gaze and pose detection algorithms."

More information: RoboCA 3 T: A Robot-Inspired Computer-Assisted Adaptive Autism Therapy for Improving Joint Attention and Imitation Skills through Learning and Computing Innovations, *Journal of Computer Assisted Learning* (2024). [DOI: 10.1111/jcal.12990](https://doi.org/10.1111/jcal.12990)

Provided by Wiley

Citation: Can robot-inspired computer-assisted therapy benefit children with autism? (2024, May 15) retrieved 18 June 2024 from <https://medicalxpress.com/news/2024-05-robot-therapy-benefit-children-autism.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.