Leveraging AI to improve therapeutic outcomes in parent-focused psychotherapy

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Abstract: Severe temper outbursts, argumentative, and aggressive behaviors in children and adolescents are among the most common reasons for referral to mental health services in children under the age of 14. The most widely adopted evidence-based therapies are parent-based; all include the teaching of relationship-enhancing and behavioral management skills, with “homework” between sessions assigned to increase the rate of skill development. However, homework completion rates are low and live practice with feedback from a therapist is limited by well-known non-trivial barriers such as transportation, scheduling, and childcare for non-target children. This creates a critical implementation gap where the uptake of skills is inefficient, and therapists lack scalable tools to support families between sessions. We therefore propose to develop a natural language system to be used in conjunction with enrollment in parent-based psychotherapy. This platform would act as a secure, scalable practice space for parents, solving the "homework problem" by providing immediate, iterative feedback that is essential for learning complex skills. This proposal aligns with the center's mission to advance interdisciplinary, human-centered AI research for social good, to address a critical need in mental healthcare.