

The American Academy of Pediatrics Institute for Healthy Childhood Weight and Kognito partner to change the conversation about childhood obesity.

Using Kognito’s innovative conversation simulations featuring virtual patients, conversation experiences were designed to help pediatricians build effective motivational interviewing and engagement skills to improve communications with parents and their children.

CHALLENGE

The American Academy of Pediatrics (AAP) recommends that pediatricians routinely assess and plot patient weight for length (under age 2) or body mass index (BMI) (\geq age 2) and counsel families on healthy active living related behaviors, including nutrition and physical activity. A recent AAP survey of graduating pediatric residents revealed that while they felt comfortable counseling patients and families about healthy active living, the majority did not feel their efforts were effective.* However, those who received training in motivational interviewing and behavior change strategies were significantly more like-

ly to rate that their counseling around prevention of obesity and treatment of obesity was very effective. Motivational interviewing (MI) is a goal-directed counseling strategy used to help patients and families find intrinsic motivation for behavior change. A 2014 vanguard study completed in pediatric and registered dietitian practices in the US comparing motivational interviewing to usual care demonstrated that patients ages 2–8 whose families had participated in MI had significantly greater reductions in BMI.**

Traditionally, MI is taught in person using a combination of didactic learning and interactive opportunities to

practice new skills; training sessions vary from brief 2-hour workshops to full multi-day courses. Because skills practice is such a critical component of MI training, typical online learning strategies are not ideally suited to support broad dissemination. Recognizing that pediatricians and other health professionals face limited budgets and time available for continuing education, the AAP Institute for Healthy Childhood Weight (Institute) committed to developing MI resources that would be accessible 24/7, while offering the interactive elements essential for successful adoption of skills.

SOLUTION

In 2014, the Institute partnered with New York-based Kognito, leaders in immersive learning experiences with virtual humans that drive positive change in health behaviors, to launch a new tool for pediatricians and other health professionals in the fight to reduce childhood obesity. Titled *Change Talk*, the 12-minute web-based module and mobile app is designed to help health professionals utilize MI techniques to navigate challenging family and patient conversations regarding childhood obesity.

Change Talk is a virtual practice environment in which health care providers assume the role of a pediatrician and engage in a conversation where they decide what to say to a mother and her son—virtual humans who display individual personalities, emotions, and memories. Through the conversation, the user learns to apply MI techniques to help the virtual humans identify motivation for change, supporting them to implement modifications to their diet, screen time habits, and exercise routines. *Change Talk* is designed to



SOLUTION CONTINUED

realistically simulate the experience and behaviors of practicing professionals, patients, and caregivers in real-life situations.

The interactions and responses of the virtual humans are controlled by a set of algorithms that underlie the behavioral model created for this interaction. These algorithms ensure that learners are repeatedly exposed to target conversation and behavioral patterns as a way to develop skills, change attitudes, and build self-efficacy. To successfully complete the conversation, users must apply effective conversation tactics and adapt their decisions to the virtual humans' behaviors, attitudes, and personalities. *Change Talk* was launched in spring 2014 and is currently a freely available resource that can be accessed online at kognito.com/changetalk or via the Google Play and Apple App Store.



HOW TO ACCESS

Change Talk is a free app and web resource. It is available for download from the Apple App Store,™ Google Play,™ and the Windows Store. The web version can be accessed at ihcw.aap.org/resources or kognito.com/changetalk.



RESULTS

As of July 2016, 26,200 individuals have accessed the mobile or web versions of *Change Talk*, significantly exceeding the initial uptake estimates by the AAP. *Change Talk* was ranked by iMedical Apps as the second best medical app released in 2014 and has an average of 4.7 out of a possible 5-star rating in the Apple App Store.

In addition, 307 physicians who completed *Change Talk* and were awarded CME, completed post and 1-month follow-up surveys about their experience with the simulation and its impact on their behavior as clinicians.

The results show that 97% rated the simulations as “Very Good” or “Excellent” and 97% of participants were either “Extremely Satisfied” or “Very Satisfied” (78%) or “Satisfied” (19%) with *Change Talk* as a CME activity. Additionally, 96% stated that *Change Talk* “Greatly Exceeded their Expectations” (19%), “Exceeded their Expectations” (44%) or “Met their Expectations” (33%). Most importantly, nearly 93% stated

that as a result of this learning activity they intend to make a change in practice to provide better health care.

In response to the open-ended question inquiring to what they would do differently, a vast majority indicated they plan to use MI in their practice. A few were more specific and mentioned elements such as not lecturing to patients, asking for permission before discussing a sensitive topic, discussing one change at a time, and avoiding judgement. Other open-ended responses included: 1) “I feel like I usually lecture parents and see little change. This was amazing and a whole new way of thinking and communicating,” 2) “Be less confrontational—try to listen and elicit change talk from the patient,”



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RESULTS CONTINUED

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and 3) “More listening, summarizing, and allowing parents to create solutions.”

At the one-month follow-up, 88% stated they **did make the changes** they indicated they would such as: 1) “asking if it is ok to talk about healthy eating,” 2) “doing more motivational interviewing,” 3) placing “more emphasis of meeting patients at their current stage of change instead of moving to action plan,” and 4) eliciting “increased buy-in and completion of recommendations.” Participants highlighted the impact that the course has made on their practice, remarking that “It has been a mental frame shift for me as much as anything: changing the focus of control to the patient instead of (wrongly) putting it on my shoulders and making for a more adversarial dynamic;” “(my) patients are more receptive to the conversations,” and “(we’re getting) excellent results, the interaction is better and kids are happy.”

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The high adoption numbers and strong feedback from pediatricians indicating the impact of this 12-minute experience on actual behavior, has led the AAP and Kognito to decide to expand *Change Talk* to include additional practice conversations. The parties are currently working on adding two conversations around establishing healthy active living habits in early childhood, which will be made available in Q4/2016.



American Academy of Pediatrics
Institute for Healthy
Childhood Weight
WHERE LIFELONG RESULTS BEGIN

The AAP Institute for Healthy Childhood Weight was launched in 2013, and serves as a translational engine for pediatric obesity prevention, assessment and treatment. The work of the Institute is supported by a diverse portfolio of funders, with Nestlé as the Founding Sponsor.

Learn more at ihcw.aap.org.



Kognito is a proven leader in developing conversation simulations featuring emotionally-responsive virtual humans to enable conversations that make a difference. Supported by a growing volume of research evidencing their effectiveness, Kognito’s conversation simulations provide an exciting new opportunity for effectively delivering behavior change outcomes. We create simulated conversations with virtual humans where people practice and self-assess their ability to manage conversations that can lead to positive changes in social, emotional, and physical health. Kognito is the only company with health simulations listed in the National Registry of Evidence-Based Programs and Practices (NREPP).

Learn more and access demos at kognito.com.

* Frintner MP, Liebhart JL, Lindros J, Baker A, Hassink SG. Are graduating pediatric residents prepared to engage in obesity prevention and treatment? *Acad Pediatr.* 2016;16(4):394-400. doi:10.1016/j.acap.2016.01.016

** Kenneth Resnicow, Fiona McMaster, Alison Bocian, Donna Harris, Yan Zhou, Linda Snetselaar, Robert Schwartz, Esther Myers, Jaquelin Gotlieb, Jan Foster, Donna Hollinger, Karen Smith, Susan Woolford, Dru Mueller, and Richard C. Wasserman. Motivational Interviewing and Dietary Counseling for Obesity in Primary Care: An RCT. *Pediatrics* 2015; 135:4 649-657; published ahead of print March 30, 2015, doi:10.1542/peds.2014-1880.