MOTIVATIONAL INTERVIEWING FOR CHILDHOOD OBESITY PREVENTION: ARE PHYSICIANS READY TO LEARN USING VIRTUAL REALITY TECHNOLOGY?

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BACKGROUND

• Pediatricians are on the front lines of childhood obesity prevention and treatment
• To address healthy weight at the point of care, American Academy of Pediatrics (AAP) recommendations call for calculation of body mass index for all children ages ≥2 years as well as counseling on physical activity and nutrition
• But in a 2010 AAP needs assessment, pediatricians reported a lack of tools and resources to prevent and treat childhood obesity
• Motivational interviewing (MI) – a patient-centered method for enhancing intrinsic motivation to change health behavior by exploring and resolving ambivalence – has been shown to be an effective strategy in the clinical setting
• Many physicians, however, feel unprepared to use MI around issues like healthy weight, nutrition and physical activity
• Traditional, in-person MI training is costly in dollars and time and is limited geographically
• Innovative and cost-effective teaching approaches are needed
• Virtual reality technology is emerging as an efficacious method for MI training

OBJECTIVES

• Examine the acceptability and feasibility of VR technology to train physicians around MI for childhood obesity prevention and treatment

METHODS

• Pediatricians recruited via email through several AAP committees, councils and sections
• Approved by the AAP’s IRB, the study included two components:
  - Component 1 – participants viewed a 10 minute VR-based video about MI followed by a 15-20 minute interactive VR module illustrating the technology’s use for education and training; surveys completed pre- and post-viewing
  - Component 2 – telephone based one-on-one or small group debriefing interview
• Kognito Interactive developed the VR simulation using their Human Interaction Game Engine™ which is based on research in social cognition, neuroscience and MI – through the VR module, participants engage in avatar-based role play simulation to learn/practice communication skills

RESULTS

• Characteristics of the Sample
  - 35 pediatrician participants from rural, urban and suburban practice settings
  - All provided direct patient care
  - 57% female; mean age ≥ 44 years
  - Most had no prior MI training

Acceptability of Virtual Reality for MI Training

• Response to the VR training was overwhelmingly positive
• 100% expressed interest in taking a pediatric-focused, web-based role-playing simulation on MI, if one existed.
• 97% agreed/strongly agreed that the technology providing simulated VR conversations with an emotionally responsive avatar can be an effective approach for pediatricians to learn MI around child weight concerns

Factors Contributing to Acceptability

• Innovation and Quality of the Technology – participants valued the caliber of the simulated conversation technology, realism of the avatars, effectiveness of the dialogue and ease of use

CONCLUSIONS

• Advantages over Traditional Teaching Methods

• Findings suggest that VR training may be a highly acceptable and cost-effective way to teach pediatricians MI skills and strategies
• Participants valued the technology’s sophistication and ability to create realistic scenarios and authentic conversations while providing immediate, personalized feedback

• VR-based learning can create a non-threatening and conveniently accessible extended classroom for pediatricians to develop and enhance MI skills

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